
**MINISTRY OF MINES AND PETROLEUM
WORLD BANK**

**CONSULTANCY SERVICES FOR IMPROVING THE BUSINESS
ENVIRONMENT: REFORM OF NORTHERN COAL ENTERPRISE**

**REFORM AND RESTRUCTURE OF NORTHERN COAL
ENTERPRISE**

FINAL REPORT

PREPARED FOR:

MINISTRY OF MINES AND PETROLEUM

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Abbreviations

AGS	Afghanistan Geological Survey
A/R	Accounts Receivables
Board	Board of Directors (or Board of Management with specified authority)
CAPEX	Capital Expenditure
CEO/CFO	Chief Executive Officer/Chief Finance Officer
Chair	Chairperson (Leader) of the Board
Client	Ministry of Mines and Petroleum
CLLC	Corporations and Limited Liability Company Law
CoA	Chart of Accounts
CBM	Coal Bed Methane
CLLC	Corporations and Limited Liability Company Law
EITI	Extractive Industry Transparency Initiative
ERP	Enterprise Resource Planning
HR or HRD	Human Resource Department
HSE	Health, Safety and Environment
IAS	International Accounting Standards
IFMIS	Integrated Financial Management Information System
IFRS	International Financial Reporting Standards
IM/IMC	Independent Miner/Independent Mining Contractor
IPSAS	International Public Sector Accounting Standards
IT	Information Technology
(W)LAN	(Wireless) Local Area Network
LTO	Large Taxpayers Office
MoF	Ministry of Finance
MoMP	Ministry of Mines and Petroleum
NEPA	National Environment Protection Agency
NCE	Northern Coal Enterprise
OPEX	Operating expenditure
PC	Personal Computer
PERMIT	Limited Duration Permit to occupy (a designated site) and extract (Coal)

PPE	Personal Protective Equipment
PPP	Public Private Partnership
SCS	Sub-Contracted Supplier (of coal to NCE or its customers)
SOE	State Owned Enterprise
TGD	Technical Guidance Document
ToR	Terms of Reference
UNICON	UNICON Limited (UK) and their affiliated companies
VPN	Virtual Private Network

Note: Other technical IT terms listed in tables can be referenced to the separate project Report on IT Systems development

1 Executive Summary of Report

1. This report presents a viable and optimal strategy for the reform and restructure of northern coal enterprise. The proposed strategy detailed in this report specifically targets (and enables) the attainment of the “core objectives” established for the NCE business enterprise.
2. The Core Objectives established for NCE are:
 - To raise standards of Worker Safety, Health and Well-being;
 - To reduce mining related fatalities and accidents;
 - To maximise the revenue stream generated by coal mining activities;
 - To increase direct, and associated, employment opportunities;
 - To improve worker skill levels and capabilities;
 - To increase production volumes, capacities and actual attainment;
 - To reduce adverse environmental impacts of coal mining activities.
3. The approach for improvement and the delivery of the desired Core Objectives, presented in this Strategy, is one that is based on

“Co-Operation, not Confrontation”.

4. Effectively offering positive incentives and support to the (currently) Independent Miners – who constitute the great majority of coal production in Afghanistan – that will both encourage and enable these Miners to operate more safely, more productively, and in collaboration with NCE and the Afghanistan authorities. A strategy that will reward those Independent Miners for becoming formally appointed, “Sub-Contracted Suppliers” of coal to the NCE.
5. The central assertion of the strategy proposed in this Paper is that the future improvement of NCE (and the wider mining sector of Afghanistan) will be best realised by a considered and incremental programme of business development rather than by a precipitous pursuit of “Corporatisation and Commercialisation” (with the associated implication of consequent “Privatisation” of the enterprise).
6. The proposed strategy does not discount the possibility of (eventual) privatisation of the NCE business. Rather, this strategy proposes actions that will fundamentally strengthen the NCE business while creating a structure that is more commercially robust. Effectively, reforming and restructuring the extant NCE organisation into one that is more readily suited to eventual full corporatisation and (potential) privatisation when such decision is taken.
7. The strategy specifically proposes that, in the short-term, annual production will be increased improving the basic operations and production methods (and thereby Safety and Productivity) at the extant NCE coalmines while simultaneously beginning the “Formalisation” of the supply relationship between NCE and selected “Independent” coal miners (effectively

converting those previously “independent” coal miners into “Sub-Contracted Suppliers” of coal to NCE).

8. Thereafter, in the medium-term, further increases in annual coal production will be secured by the ongoing development and expansion of the “Sub-Contracted Supplier” Scheme while undertaking the location and identification (for consequent exploitation) of new coal resources amenable - because of their physical characteristics - to extraction by more modern, safer, more cost-effective mining methods than those currently practised.

9. The activities to improve extant mining operations and to identify new coal resources (as referred to above) will be funded by using a proportion of the additional revenue obtained from the increased sales revenue generated by the additional annual production.

10. The strategy proposes that longer-term increases in annual coal production and efficiency will be secured by the development and establishment of actual more modern and more cost-effective coal mines on those new coal resources located in the medium-term (as referred to above).

11. This Report presents comprehensive details of the implementational requirements of the proposed strategy together with analysis and commentary that supports the proposed strategy and provides the necessary explanation of an appropriate mechanism for attainment.

12. This Report is divided into nineteen (19) main sections (of which this, the “Executive Summary”, is the first), supported by a number of ancillary appendices. This “Section 1: Executive Summary” presents a very brief summary of the content and main conclusions of the full Report.

13. Section 2 of this Report (“Introduction to the Project”) presents an introduction to the overall structure of this project, providing an overview of the methodology and approach that was applied together with an outline of the project structure.

14. In Section 3 (“Assessment of Extant Situation”) is found an abbreviated summary of the key factors pertaining to the prevailing, current NCE situation as presented in much greater detail in the original report submitted (“NCE: Assessment Report”).

15. Section 4 herein (“Formulation of Key Strategic Options”) presents an elaboration of the possible strategic options facing NCE, any of which could, conceivable, have been selected as the “preferred” option for Reform and Restructure of the NCE business entity.

16. The fifth section of this Report is entitled “Proposed Strategy for Reform and Restructure”, and it is here that summary details of that preferred strategy (which best satisfies the core objectives for both NCE and the wider coal mining sector) are established and proposed as the strategy that should be adopted.

17. In sections 4 and 5 the Reader is able to become familiar with the respective merits (and disadvantages) of each potential main Strategic Option, while gaining knowledge of the reasons and motivations that have generated and supported the chosen proposed Preferred Strategy.

18. The “Methodology of Reform and Restructure Strategy” is presented in Section 6. In this section the mechanism whereby the proposed strategy can be implemented, together with appropriate structures and systems for on-going management/control of the developing scheme for Sub-Contracted Suppliers (of coal to NCE) is discussed and detailed in depth.

19. Central to the implementation of the proposed strategy for Reform and Restructure of NCE are those changes, amendments and revisions of the legal and regulatory framework of Afghanistan which will be necessary to support the strategy. Section 7 (“Legal Considerations”) enumerates and explains those required changes and the means by which they may, most readily, be accomplished.

20. Section 8 (“Corporate Governance”) elaborates an appropriate system and structure for the effective strategic management and direction of the reformed NCE business entity. The recommendations therein present systems and structure that will satisfy the immediate requirements to support the effective implementation of the proposed strategy while also establishing the necessary framework for the (possible) future formal “corporatisation” and even “privatisation” of the reformed and restructured NCE.

21. Appropriate (and necessary) systems for effective “Financial Management” and the essential “Business Planning” at NCE (both being integral underpinnings of the proposed strategy for reform) are detailed in Section 9 and Section 10 respectively.

22. Closely associated with the details presented in Sections 9 & 10, Section 11 provides examples and methodology for the “Financial Forecasting and Budgeting” that the reformed and restructured NCE will require. Essential tools for corporate management, it will be essential that NCE produces and maintains rigorously updated financial forecasts and budgets (and employs these documents as management tools).

23. In Section 12 (“Human Resources and Organisational Development”) this Report addresses the staff, employee and personnel implications of the proposed strategy. While noting that change, reallocation and training will certainly be required, it is the opinion of this Report that the necessary evolution of the NCE organisation can be accomplished without the need for enforced retrenchment or employee redundancy.

24. Aspects of “Technical and Mining Operations Considerations” are addressed in Section 13 of the Report. Here are detailed those technical and mining aspects associated with, or consequential to, the proposed strategy for Reform and Restructuring of NCE. This section addresses those key technical and operational elements necessary to realise the objectives of the strategy in respect of both NCE’s directly controlled mines and the mining operations of the Sub-Contracted Suppliers.

25. Adjudged as critical to the successful implementation of the proposed strategy, considerations of “Supervisory Structure” (and “Line Management”) are discussed and presented in Section 14 of this Report. It is acknowledged that substantial training and capacity building will be required, and that new systems / methods of supervisory management and control will be needed. Suggested structures and more detailed examples are offered in the section.

26. Possibly the most important of the individual “Core Objectives” identified for the program of Reform and Restructure of NCE, improvements in “Health and Safety” are proposed in Section 15 of this Report. Detailed discussion of measures for better performance, reduced risk and systematic management are offered in this section, together with specific recommendations for action.

27. While not immediately central to the implementation and realisation of the proposed strategy, a commentary on “Sales and Marketing Considerations” is tendered in Section 16 of this

Report. In the longer-term, an in-depth assessment and analysis of the sales and marketing features / opportunities facing the Afghanistan coal sector may be appropriate, but in the short-term such is deemed unnecessary.

28. Addressed in Section 17 are considerations of Information Technology and Data Systems. While not critical to the implementation and success of the proposed strategy, such considerations will make a valuable contribution to increasing both the overall efficiency and effectiveness of the NCE post reform and restructure.

29. Considerations of Environmental Impact are detailed in Section 18 of this Report. While such considerations are not central to the proposed strategy, in their capacity as “stewards” of the mineral resources and assets entrusted to them, management and stakeholders of the NCE have a “duty of care” to the environment in which they operate, and on which they are dependant. Moreover, if at some future date, it is decided to formally corporatise NCE (with the possible intentions of either “privatising” the business or securing external investment in it), then it will be essential that NCE can demonstrate full compliance with internationally accepted norms in respect of environmental matters. Appropriate measures to secure such compliance are noted in this section.

30. This Report concludes, in Section 19 (Conclusions, Proposed Actions and Recommendations), that a strategy for the reform and restructure of NCE, founded (firstly) on securing co-operation and collaboration with a proportion of Afghanistan’s numerous Independent Coal Miners while (concurrently) developing the internal systems / methodologies / practices / structures of the NCE business entity, presents a much greater probability of long-term success and the realisation of the core objectives of the business. The proposed strategy does not refute the possibility of (eventual) privatisation of the NCE business. Rather, actions are proposed that will fundamentally strengthen the NCE business while creating a structure that is more commercially robust. Effectively, reforming and restructuring the extant NCE organisation into one that is more readily suited to eventual full corporatisation and (potential) privatisation when such decision is taken.

31. Section 19 presents comprehensive tables of those specific, individual actions and recommendations that will be required to fully deliver the proposed strategy.

32. Throughout this Report, items of text have been **placed inside box frames**. These highlighted items present, in detail, those actions and recommendations that will demand implementation in support of the proposed strategy.

2 Introduction of Project and Report

2.1 Project Background

33. UNICON Ltd (UK) was engaged by the Ministry of Mines and Petroleum (MoMP) to undertake the World Bank funded project “Improving the Business Environment: Reform of the Afghanistan Northern Coal Enterprise (NCE)”. UNICON mobilised in July 2014 and submitted an Inception Report in September 2014 that provided an updated work plan indicating the required tasks and deliverables.

34. These tasks and deliverables included:

- Assessment of the current state of NCE’s business operations;
- Development of strategic options to address identified concerns within the business and the stated reform objectives of MoMP; and
- Development of a program to restructure and modernise NCE.

35. Within these parameters a stated project task was to consider the capacity for commercialisation and corporatisation of NCE.

36. The Northern Coal Enterprise is a State Owned Enterprise (SOE) established in 1350 (1972-73) under the Afghan Law on State Owned Enterprises. Per the formal provisions of its Legal Charter, NCE can operate as a “full-fledged” coal company, undertaking all business, commercial and operational functions appropriate to such business.

37. A decade ago, as political and economic changes throughout the Afghan economy triggered a drive towards reform and restructuring of mining and other sectors, the NCE had fundamentally become one of two¹ major coal companies in the country.

38. In today’s Afghan coal market, NCE manages its own mining operations and also operates as a coal trader, sourcing supply from a myriad of independent artisanal miners. NCE sells the coal “wholesale” to other coal traders and this represents the official source of supply whereby a fixed fee of Afs 2,100 per ton is standard NCE price by law².

39. Northern Coal Enterprise is included in the Government of Afghanistan’s effort to become a member of Extractive Industry Transparency Initiative (EITI) - an international standard for openness around the management of revenues from natural resources, and the reform of NCE is seen as an important part of the membership approval process, which started in 2009.

40. Participation in such international initiatives along with reform of state businesses and more effective management of the resource sector are seen as key initiatives towards greater

¹ The other company was Sabzak Coal in western Afghanistan.

² This price includes the fee for the miners who extract the coal, at a standard of Afs600/ton, but this can vary marginally according to the degree of difficulty in attaining the coal. Where the coal is sourced from independent miners, in practice this fee is often negotiated directly with the miners/mine owner

financial autonomy for Afghanistan that relies heavily on international financial aid. NCE is identified as the largest taxpayer in Afghanistan³.

41. In these circumstances, a reformed Northern Coal Enterprise is projected to boost state revenues, enhance prospects for fuel and energy sources and provide a catalyst for greater outputs and state benefits from the resources and mining sectors.

42. In 1386 (2006) the MOMP prepared a commercialisation program toward improving NCE operations; this took shape in the form of a Cabinet Decree that was valid for five years; since that time an annual review of the NCE program is conducted and the Council of Ministers is invited to extend the program.

43. The fundamental outcomes of the decree were not commercialisation in the modern market-based business sense, but it did alter some aspects of NCE operations, through,

- Resolving / reclaiming rights to some NCE coal properties;
- Reform of NCE staff positions and payment levels;
- Enhanced payment and contract terms for independent coal workers; and
- Introduced an improved safety program targeting the mitigation of coal fires.

44. While this Report outlines a far more significant and wide-reaching suite of changes and improvements to NCE operations, tendering a very much commercially focused reform strategy, the decree is useful in introducing the notion of reform and paving the way for such significant future changes.

45. During the initial phases of this project the Government and the Ministry of Mines and Petroleum undertook some internal changes following the 2014 National Election and the assignment of counterparts to the project team was unsustainable. Currently the Ministry is still reviewing its position with respect to the reforms of NCE and the findings of this Report are anticipated to be of significant interest and influence for the Ministry.

2.2 Project Structure and Implementation

46. As indicated the Project has evolved and been developed through three distinct phases.

- Assessment of the status of NCE;
- Development of strategic options for reform; and
- Development of a detailed strategic program of reform following selection of the preferred option.

47. The Assessment phase of the project highlighted a number of factors within the business operations, its management, internal business systems, staff structures and business processes

³ According to the TOR of the Project

as well as concerns related to the safety and operating mechanisms, all of which provide opportunities for improvement, provided a sensible and detailed plan is engaged and sufficient commitment and resources are applied to a change and improvement program.

48. Along with knowledge of the significant potential to improve NCE operations, UNICON then sought understanding of the Government intentions and objectives towards reform of NCE. These findings are detailed in Section 4 of this Report.

49. Once due consideration had been given to the different strategic options for Reform, and after significant reviews, discussions and “brainstorming” among the project team, an outline of a strategy for reform was developed and subsequently expanded to the level of detail as presented in this Report.

50. In support of these three key phases of the project a suite of Project outputs has been prepared and submitted, each contributing in some aspect to the general theme of reform (improvement and new systems or mechanisms that can be adopted) and many of them contributing specifically to the proposed strategy for reform as detailed in this Report and/or being a document of value if and when a decision to corporatise NCE is taken.

51. Alongside the development of these outputs and the overall strategic details for reform, a capacity building program was developed and delivered to NCE comprising multiple workshops on management and mining topics and presented to selected NCE staff over two or three days each.

52. The full list of outputs under the project is given in Appendix 1.

2.3 Final Report Arrangement

53. This Final Project Report aims to coordinate the efforts and final conclusions of the project through the detailed explanation of a proposed and comprehensive reform strategy that by all accounts is quite feasible, very doable and pragmatic but without a doubt will necessitate a strong commitment from the Ministry and Government and an allocation of necessary resources. This Report provides the detail of how this should be achieved.

54. This Report is arranged as follows:

- Section 3 summaries the first phase of the project through a brief statement of the extant NCE situation, highlighting some of the concerns noted that have subsequently been the focus of attention in developing improvement strategies;
- Sections 4 and 5 detail the second key phase of the project, being the development and evaluation of key strategic options for reform;
- Sections 6 and 7 explain in detail the third key phase of the project, being the development of a proposed strategy for reform and restructure of NCE and how it is proposed this will be implemented;
- Sections 8 - 18 address key business elements of a proposed reformed NCE including legal matters, financial management issues, technical, organisational and safety aspects to identify the business critical elements that will need to be

addressed and amended to underpin the proposed strategy with details of what needs to be done and how, it is proposed, such changes can be implemented; and

- Finally, Section 19 provides a summary of proposed actions, recommendations and conclusions from the above strategic detail and analysis.

3 Primary Assessment of Extant NCE Situation

3.1 Introduction

55. Resulting from the completion of the initial data gathering phase of the Project, the key salient features of the extant NCE situation have been identified and are presented herein. More comprehensive details and findings can be found in “NCE Assessment Report” compiled by UNICON and issued in December 2014.

56. It is noted that all current NCE operations are physically remote from Kabul. As a result, NCE is heavily dependent on institutional relations with formal provincial, municipal (and other less formal local power bases) to ensure security and to effect operability.

3.2 Business and Commercial Structure

57. Northern Coal Enterprise, established in 1350 (1972-3), is a State Owned Enterprise under Afghan law. The enterprise (NCE) is empowered to operate as a “fully-fledged” coal company, undertaking all commercial and operations functions appropriate to such a business.

58. Under existing legislation, NCE operates without direct payment of fees, extraction taxes, royalties and other amounts that might otherwise be levied upon an independent coal mining company. This benefit that accrues to NCE is offset by the current requirement for NCE to conform to the SOE regulations requiring remittance of enterprise profits (after any due taxes) to the State treasury.

59. In 1386 (2006) the MoMP prepared a “Commercialisation Programme” with the intent of improving the commercial performance of the NCE. While a Cabinet Decree having five years validity was issued and no overt movement towards “commercialisation” has been implemented the programme did commence some important employment and engagement changes to reduce overall staff numbers and - subject to annual Council of Ministers approvals - the programme has been extended.

60. Whilst not imposing “commercialisation” in its fullest sense (or as it is generally understood), the Cabinet Decree result in the restructure of certain aspects of the NCE operation:

- Helped to reclaim certain NCE coal properties which had operated (temporarily) beyond NCE’s control in the informal or illegal sector;
- Restructured staffing to provide for payments to miners on a contractual per-ton basis;
- Clarified NCE staff positions and payment levels;
- Enhanced payment and (in part) clarified terms of engagement for independent coal workers; and
- Introduced an improved safety program targeting the mitigation of coal fires.

3.3 Organisational Structure and Human Resources

61. The legal status of NCE as an SOE means that its organisational structure is prescribed and that the MoMP (for all technical and general operational issues) and MoF (for all financial issues) ultimately manage and determine how NCE will operate.

62. The 1386 (2006) Cabinet Decree significantly modified how NCE workers were categorised and paid, while helping to identify and reclaim NCE coal properties. However, “commercialisation” was a misnomer and neither commercial structure, nor commercial focus of operations, or, ultimately, steps towards “corporatisation”, were put in place.

63. Over the last five years, NCE coal property nominal holdings have been reduced. The MoMP, has directed the transfer of certain coal properties from NCE to be included in the license portfolios of Ghorī Cement, Aynak, Hajigak, as well as to some private operators. Despite this reduction in properties, NCE Tashkeel (professional grade) staffing figures have increased.

64. It is observed that all NCE Tashkeel staff are hired in accordance with the Afghan Civil Service regime which does not require coal industry expertise or other industrial or commercial experience.

65. There is considerable disparity between how the 500+ “Tashkeel” staff of NCE are paid and the benefits to which they are entitled, and the remuneration and benefits of the 400+ independent contract workers, who are paid (since the introduction of the commercialisation decree) according to the quantity of coal that they produce and are not entitled to any benefits. It is noted that the greater part of overall NCE coal production is from the independent contract workers.

66. Seemingly, NCE does not formally record or report detailed independent contract worker, or subcontractor, payments relevant to tax requirements.

3.4 Accounting and Financial Management

67. NCE maintains a detailed, but manually based, system of financial record keeping. Nominally, the system identifies and records all transactions incurred, payments made and to assets (with depreciated values) held.

68. However, this antiquated manual system lacks the completeness and rigor appropriate for a modern business.

69. NCE income derives from coal sales: NCE must ensure that either an NCE controlled and operated mine is able to satisfy an individual customer’s purchasing requirements, or NCE will direct that customer to one of the associated independent miners operating in support of NCE.

70. It is noted that, in recent years, Sales Revenue has significantly and regularly exceeded the forecast annual expectation developed each year by NCE.

71. NCE follows rigid purchasing procedures and is required to refer to MoMP for all purchases exceeding Afs 500,000. In many respects this requirement for MoMP authorisation (in conjunction with other approvals required), while compliant with current laws, impedes NCE effectiveness and potential to operate with a greater commercial and market oriented focus.

72. Broadly, NCE follows stipulated and accepted practice in the preparation of financial statements as endorsed by the enterprise committee and MoF. The prevailing system has been followed for many years without any substantive change.

73. It is noted that, because of the lack of supporting notes and disclosures, the financial statements provided by NCE differ markedly from those required by current International Financial Reporting Standards (IFRS). In recent years NCE has failed to fully complete the preparation of balance sheet and cash flow statements, although these are in place for the years 1391 and 1392⁴.

74. Declared results for the year ended 1392 show revenue of Afs 1.84bn, expenditures of Afs 223m and a profit of Afs 1.63bn. Net Assets and total equity equal Afs 2.16bn.

75. Generally, recent NCE financial results (as declared) indicate positive business performance. However, this must be viewed within the boundaries of the existing accounting structures, fixed price controls, constraints on spending and the requirement to remit large proportions of earnings to central treasury. The revenue potential based on full accounting and commercial pricing, and the implementation of strategic reform (of the business) is discussed and presented in this Report.

76. Within the overall financial arena of NCE, certain issues (as given below) are worthy of note:

- There are reasonable questions and uncertainties related to the value of inventories and the recoverability of accounts receivable;
- There is marked uncertainty in respect of title to (and value of) various fixed assets, most especially the land and property assets;
- NCE retains significant “payables” that are long overdue and the likelihood of payment is questionable;
- In addition NCE retains significant value in reserves and although such reserves derive from approved legal allocations, the build-up of high values raises questions about the appropriateness of such accounting treatment;
- NCE responds to requests for advance payments to the State Treasury (in lieu of taxes and profit remittances) and generally makes ad hoc payments as requested. Such payments are then “post period” reconciled in the NCE Financial Accounts. Inevitably there are reconciling differences and given the lack of balance sheet preparation until recent years, it is unclear if the carried forward balances are fully justified;
- The MoF Large Taxpayers Office (LTO) claims improper submission of tax returns in previous years. Therefore there is a need for decisions to be taken by the relevant bodies to agree and confirm this situation; and

⁴ The most recent fiscal year end at the time of the Assessment Report

- It is understood that NCE assists the MoF in advancing payments, but it would be more prudent and practical if tax and profit remittances can be made post period and within the current law on timing.

3.5 Geology

77. Currently, Afghanistan's known major coal deposits are located in a "belt" of exposed outcrops that run through the middle of the northern half of the country.

78. Due to the circumstances of their formation, these coal resources are formed of "coal beds" (or "seams") that are faulted, folded, thrust and crushed. Consequently, the coal beds are of irregular, variable thickness often being too thin to mine. Present knowledge does not identify large blocks of coal that are amenable to exploitation by large-scale, mechanised mining techniques (such as would be required to support the long-term requirements of large-scale industrial consumers or power plants).

79. The sampling techniques previously employed have provided poor indicators of the quality of the available coal resources, but indications are that Afghanistan's known coal resources are, most probably, in the high volatile, bituminous A, B or C ranks which - with selective mining and beneficiation by washing - could provide an acceptable quality of coal for power generation.

80. Coals of good "coking" or metallurgical quality are not common. It is of note that evidenced by the seemingly high methane content of Afghanistan's known coal resources, the country's coal may host a significant alternative energy source in the form of "coal bed methane" (CBM). This energy source could, potentially, be harvested without the requirement of first extracting the associated coal.

81. Little exploration effort has, to date, been expended to understand the regional Jurassic coal geology in parts of Afghanistan not traditionally associated with the hosting of coal resources.

It is recommended that such studies to undertaken as they will be essential to future exploration success in the search for viable coal resources. These coals, once located, will be "virgin" deposits, previously un-exploited, and may well be suited for the development of large-scale mechanised underground mines.

82. While past exploration efforts have focused almost exclusively on the rocks of the Jurassic period, there are numerous other coal-systems suspected to exist in Afghanistan. Recent work on the North Afghan Platform suggests the presence of a widespread Cretaceous period coal system overlying most of the Jurassic coal deposits. Additionally, with reference to Southern Afghanistan, there are persistent reports of coal returned from villagers at numerous locations south of the Herat River. These reports have not been scientifically verified, but from a geologic perspective, they are theoretically possible.

83. UNICON opines that focused exploration and assessment programs have the potential to identify significant new coal resources in the country. Such exploration and assessment programs, as demanded by the strategy proposed in this Report, will be essential if substantial future development and expansion of Afghanistan's coal resources is to be realised.

3.6 Technical Provisions

84. It was observed that current NCE mining techniques and methodologies are little advanced beyond those commonly encountered in the artisanal and small mining operations of the less developed regions of the world.

85. The reasons for the relatively unsophisticated mining approach practiced by the NCE coalmines are multiple. The most significant among them are identified as:

- The specific geology, morphology, formation, shape and consistency of the individual coal resources being exploited;
- The absence of sufficient, detailed borehole and exploratory data with which to produce a realistic and reasonably accurate model of the individual coal resource to be exploited;
- The paucity of technical and financial investment in the mining sector;
- The lack of an adequate supporting infrastructure.

86. Notwithstanding the above observations, there are, however, many technical and procedural aspects of the current NCE operation that would merit either closer examination or actual modification. These encompass both:

- Strategic and Long-Term Considerations; and
- Immediate Operational Practices.

87. While the longer-term aspects of the Strategic Plan proposed in this Report will require effort, human resources, political will, and commitment to implement, the changes recommended to “Immediate Operational Practices” require more modest investments in time, effort and financial resource.

3.7 Prevailing Business Strategy and Planning

88. **It is concluded that the NCE mines themselves are managed and operated under an extremely “ad hoc” regime:** That is to say that the mines pursue their primary objective (i.e. the winning of coal) on the basis of responding to whatever they encounter, rather than establishing clear medium- and long-term plans against which to formulate and direct their activities.

89. While this “ad hoc” approach is, perhaps, the product of the environment in which NCE exists, the recent history of both NCE and the wider Afghanistan nation, and the specific geological and physical constraints faced by the mines. Equally, it is possible that the current approach is the result of conscious decision-making, and deliberate policy setting.

3.8 Predominant Technical Concerns

90. In consideration of current NCE mining activities, **the greatest concern (among the many) is in regard to the dependence on (so-called) “Natural Ventilation”** to provide an adequate and acceptable Primary Ventilation Circuit in each mine. It is not evident that “Natural Ventilation” is able to provide the necessary supply and consistent flow of fresh air in all parts of the mine workings.

It is strongly recommended, based on the findings of the Project’s assessment phase that a continuously updated Mine Plan - presenting an accurate representation of each mine’s physical conformation, layout and arrangement - be produced.

It is further recommended that such Mine Plan bear the nomination (or “identity name”) of each working place. This will allow address to the numerous challenges and concerns expressed in the corresponding chapter of this report.

3.9 Health and Safety

91. A specific Occupational Health and Safety Policy for the mining sector, and specific Health and Safety Regulations for Mines, are, reportedly in the process of being drafted. The critical importance of such policies cannot be overstated as these form the administrative and implementation framework upon which effective Health and Safety performance is founded.

It is recommended that all possible effort be made to expedite the completion of the relevant Health and Safety Policy and Regulations for the mining sector.

92. In addition to an adequate administrative and implementation framework, the achievement of an adequate Health and Safety system for the mining sector demands consistent and comprehensive data collection (reporting) for all accidents, incidents and other safety related events. Such system was not found to be currently, universally, in-place.

93. While the primary focus of the data-gathering exercise was on those mining operations conducted by NCE itself, it is noted that the overall production and commercial outcomes of NCE are the result of a combination of activities both from those activities directly managed and controlled by NCE and those of “independent”, local miners.

94. Coal output from both types and groups of mines (and miners) contribute equally to NCE’s production plans, and the health and safety of mine workers is of equal importance regardless of the specific “type” or group of operation.

95. There appears to be no formalised or regularised inspection plan for the NCE mine operations, any inspection that is effected being on an “ad hoc” basis. According to the Mining Inspection Department, an Inspection Book, where inspectors document their observations and measures taken relevant to each mine, should be kept at all mines.

96. Effective inspection of the “artisanal” mines, even when operating under a verbal or written agreement with NCE, seems to be severely hindered or impacted by the specific ownership structure of that mine or operation.

97. While seemingly operated by small local businessmen or individuals, some of these private mines appear to be affiliated to, or under the protection of, networks of local or national power brokers and/or “warlords”. Depending on their political orientation/affiliation, these mines are considered either “under the control” of NCE or not.

98. It is noted that, as a result of the structures of influence alluded to above, NCE (or any other mandated authority) may find that opportunities for formal inspection of (or relationships with) these aforementioned “artisanal” mines are severely hindered or wholly precluded.

3.10 Legal Considerations

99. NCE being a state-owned enterprise, the Ministry of Mines and Petroleum (MoMP) is the primary government agency responsible for the management and oversight of technical and general operations of NCE. The Ministry of Finance (MoF) is authorised to oversee the financial management of NCE.

100. NCE and MoMP officials report that precedential legal interpretation in Afghanistan of NCE as an SOE is that NCE coal mines are not required to be licensed under the national Minerals Law. This is in direct contrast to the situation of privately operated mines. As a result, application of legal and regulatory requirements to NCE is unclear.

101. Discussion with NCE management and engineers suggests that NCE operations are predominantly “self-regulated”. In part this may be due to NCE’s SOE status, and, in part, due to remote locations.

102. A clear and comprehensive suite of legal documentation relevant to NCE holdings and assets has not been found, and is therefore assumed not to be in place.

103. As far as could be ascertained, there is no constitutional or legal impediment to reform of NCE in attempt to modernise its business operations, development strategy and approach to property rights registration.

3.11 Environmental Considerations

104. NCE should comply with environmental standards as set forth under the Environment Law and Regulations, but as an SOE, NCE mine operations are not licensed and the application of these environmental standards to NCE operations has been virtually nil.

105. The National Environmental Protection Agency (NEPA) does oversee other mining operations with respect to environmental qualification and performance.

106. NCE submits an annual environmental plan to the Mining Inspectorate at MoMP. However, the plan is a simply one-page template and Inspectorate officials indicate that they have no authority to suggest modifications or monitor implementation. Neither the format nor the procedures are in line with the Environmental Law or the National Coal Policy.

107. NCE apparently presumes that - because NCE is an SOE - that it is self-regulated with regard to environmental matters, (as previously observed with regard to Health and Safety matters). NCE does not maintain formal regulations or standard operating procedures;

implementing actions that fail to respect modern or best practices for environmentally sound mining operations.

4 Formulation of Key Strategic Options

4.1 Introduction of Key Strategic Options

108. Despite the seeming complexity of the complete range of possible options for the future reform (and restructuring) of NCE, there are, in reality, only five (5) “Key Option Groups” available to the stakeholders of NCE.

109. The five main options faced by the stakeholders are:

1. “Avoidance” Option Group;
2. “Exit” Option Group;
3. “Transformation & Restructuring” Option Group;
4. “Improvement & Integration” Option Group;
5. “Development & Expansion” Option Group.

4.2 Explanation of the “Option Groups”

110. The five Key Option groups listed above are elaborated as follows:

- The “Avoidance” options are effectively those that require nothing to change (i.e. a maintenance of the “status quo”, or a “DO NOTHING” options group in which the whole question of change is simply avoided or ignored);
- The “Exit” options encompass those that effectively allow MoMP and NCE to withdraw from direct participation in the Coal mining activities of Afghanistan. These include, for example: Sale of (all or part of) the NCE business; Licensing-out of the NCE business; Closure of the NCE business;
- The “Transformation & Restructuring” options are those in which NCE effectively continues to conduct its affairs using (predominantly) the same methods of production and working practices (subject to changes necessary to improve safety standards and performance) that are presently employed, but implements changes to the current “Structure” of the NCE and to the “Business Methodology” under which it works. This Options Group encompasses those changes that may be categorised as CORPORATISATION and/or COMMERCIALISATION of the NCE;
- The “Improvement and Integration” options are those in which NCE continues to operate under the same ownership structure, but, through closer formal integration with the many current small and artisanal operators is able to effect both increases in production and improvements in mining practices and methods;
- The “Development and Expansion” options being those in which substantial growth in production and significant advances in mining methodology are achieved though

the identification and exploitation of new coal resources, and the establishment of new mining operations.

4.3 The “Core Objectives” of the Reform / Restructure program:

111. In the absence of the provision of clearly defined “Core Objectives” the following have been proposed as reasonable and realistic objectives for any program of Reform or Restructuring of NCE:

- To raise standards of Worker Safety, Health and Well-being;
- To reduce mining related fatalities and accidents;
- To maximise the revenue stream generated by coal mining activities;
- To increase direct, and associated, employment opportunities;
- To improve worker skill levels and capabilities;
- To increase production volumes, capacities and actual attainment;
- To reduce adverse environmental impacts of coal mining activities.

112. The five “Option Groups” (listed above) are neither mutually exclusive, nor required to be implemented singly. Similarly, there is no obligation that any of the options (if chosen) should be implemented immutably or indefinitely. In reality, to attain an efficient implementation of the preferred option, it is probable that different alternatives may, for a time, be required to operate simultaneously.

113. This Report, nonetheless, recognises and stresses the imperative to establish an initial preference (for one of the options to be the desired outcome) in order to subsequently establish the measures that will be required in order to ultimately achieve that chosen goal.

4.4 Itemised Evaluation of Strategic Options

Option Group 1 (“Avoidance”): Advantages and Disadvantages:

Advantages of “Option Group 1”

- Considered to be the easiest option to pursue as it requires no political or operational “will” or effort to implement;
- Avoids any new disturbance of either the political or social balance of the prevailing Afghan “milieu”;
- Allows stakeholders of NCE the possibility of prevarication: Literally, the ability to “do nothing today, as tomorrow may offer better alternatives”;

- Offers the advantage of a neutral impact on current NCE staff and employees.

Disadvantages of “Option Group 1”:

- By definition, all of the presently perceived weaknesses of NCE will continue;
- Worker safety will not benefit other than through minor operational changes;
- Negative environmental impact will continue unabated;
- Any “step-change” in attitudes to safety or the environment through radical reform of operational practices will be excluded;
- The option offers no opportunity to raise the wider “skills base” of workers;
- The possibility of substantially increasing production volumes, proving new coal resources, and generating increased financial revenue, will be foregone.

Option Group 2 (“Exit”): Advantages and Disadvantages:

Advantages of Option Group 2:

- Removal of the economic risk associated with the ongoing operation of NCE;
- Effective exchange of a potential (but uncertain) future revenue stream, for a definite present financial settlement;
- Direct responsibility for the operational costs and liabilities of NCE is largely eliminated;
- Accountability for operational performance of NCE is either negated or devolved to a third-party;
- In the event of selling or leasing the NCE operations, possibility of capital input from the incoming owner / lessee;
- Opportunity to transfer responsibilities for social and environmental impacts to incoming agency.

Disadvantages of Option 2:

- Loss, or surrender of direct control, of a national asset;
- Ability to directly impact worker safety and well-being is foregone;
- Certainty of job losses in the event of closure, and probability of job losses in the event of the sale or leasing-out, of NCE;

- Risk of failing to obtain either the maximum sales price for NCE asset(s) if sold;
- Risk of not receiving maximum expected revenue if NCE asset is leased-out;
- Potential for worker safety and environmental impact to worsen as new Owner or Lessee ascribes greater value to short-term financial gain.

Option Group 3 (“Transformation & Restructuring”): Advantages and Disadvantages:

Advantages of Option Group 3:

- Legal separation of the business enterprise from its investors and stakeholders;
- Creation of an independent, self-actuating, legally recognised entity, which can be sold or traded by its participating investors and shareholders;
- Separation of the Afghan state from the legal obligations, commitments and liabilities of the corporatised business entity;
- Increased “clarity of purpose” for the corporatised entity, as wider government driven objectives are divorced from immediate business objectives;
- Greater incentive for improved performance with operating benefits accruing directly to the corporatised business entity;
- Opportunity for future “listing” of the corporatised business on a recognised Stock Exchange facilitating the ability of the business to raise capital, and for public trading in the shares of business;
- Optimises the use of the assets and resources available to the business entity;
- Provides a clear objective and direction for the application of corporate / company effort, both at a strategic level and at an operational or tactical level;
- Fully implemented, provides the necessary management “tools” for the direction, application, review, amendment and control of effort applied at all levels of the business.

Disadvantages of Option Group 3:

- Large amount of administrative effort and implementation cost to secure corporatised status. Negative political and social response to principal of corporatisation of a (current) State Owned Enterprise;
- Loss of ability to directly control the activities of the business entity;

- Imposed commercial and administrative disciplines, which must be implemented if “corporate” status is to be maintained;
- The corporatised business may not, and has no obligation to, facilitate the implementation of broader Afghan government policy;
- Creates a “management and control” framework for the business, which may be resented by individuals;
- If fully applied, highlights inappropriate or inefficient use of business assets and resources.

Option Group 4 (“Improvement and Integration”): Advantages and Disadvantages:

Advantages: Option 4.

- Based on extant organisational and operational structure, therefore readily acceptable to stakeholders;
- Inexpensive to implement;
- Speedily implemented in comparison to other change options;
- Supports and enhances worker “self-worth” and occupational security;
- Provides mechanism for the direct improvement of worker skills and competences;
- Positive perception of option among potential donors and prospective financiers.

Disadvantages: Option 4.

- Fails to establish an operational base amenable to modern mining systems;
- Maintains the present, highly fragmented coal production structure, with numerous “unitary” production units being difficult to direct and control;
- Accepts systemic weaknesses of current control of mining by unauthorised “strongmen”.

Option Group 5 (“Development and Expansion”): Advantages and Disadvantages:

Advantages: Option 5.

- Once located, a new mine could be equipped to operate using more modern, safer, more productive mining systems;
- A new mine, with more modern systems, could serve as a “Centre of Excellence” for the training and development of skills across the wider Afghan mining sector;

- Inherent safety advantages of improved mining methods could be realised;
- Increased production volumes would be attainable;
- Uplift in overall operational efficiency, with consequent reductions in unit operating costs;
- Opportunity to service or create new sales markets.

Disadvantages: Option 5.

- A suitable coal resource has first to be found;
- Expensive in terms of capital requirement;
- Time delay for design, development and implementation of a new mine;
- High training and skills-development requirement for initial establishment;
- Significant impact on extant coal mining operations and trading.

4.5 Recommendation of a “Preferred Option”

114. Decisions of “preference” or “priority” are not within the remit of the UNICON Project Team: Such decisions being totally remanded to the Government and Ministries of Afghanistan). Nonetheless it is reasonable for the Project Team to express opinions.

115. In due consideration of the respective advantages and disadvantages of each Option Group the Project Team expresses the following opinions:

Given the extant pressures on the Afghan coal mining sector, and the perceived need for improvements both in applied technology and safety, then it is the Team’s view that Option 1 (Avoidance) - the option to “Do nothing” - will be completely unacceptable to the NCE stakeholders.

116. Option Group 2 (Exit) may hold attraction to the stakeholders of NCE - especially if a willing buyer and financially advantageous settlement could be attained. However, while this option, under such circumstances, may offer some short-term benefits to the stakeholders of NCE, the Option Group does not directly address the key objectives of long-term improvement, strengthening and growth for the Afghan coal mining sector.

117. The Option Group designated “Transformation & Restructuring” (Option 3), focussing on the two core dimensions “Corporatisation” and “Commercialisation”, while not without value, fails (in isolation) to deliver the overall objectives sought from the process of change and reform. In respect of the first, Corporatisation, this Report finds difficulty in identifying any substantive benefit to the stakeholders of NCE from the implementation of Corporatisation (as a business form) in itself. While such a change (Corporatisation) may facilitate a subsequent intention to sell or

dispose of NCE, there is no obvious, tangible advantage (in terms of operational growth or improvement) to be gained from the act of Corporatisation.

118. In contrast to the comment above (ref: Corporatisation) the implementation of the requirements of “Commercialisation” may provide (eventually) some improvements in business performance as changes to NCE business “ethos” and practices take root (but such improvements may take some years to become evident).

119. Option 4, “Improvement and Integration”, while having many merits, does not offer a direct route to fully exploit the desired, long-term objectives of improvement, strengthening and growth for the Afghan coal mining sector. However, Option 4, through the mechanism of “Integration”, does offer an immediately accessible approach enabling the partial (and not insubstantial) realisation of many of the objectives for the coal sector.

It is the opinion of this Report that, ultimately (and in the longer-term), it is Option 5 (Development and Expansion) that offers the greatest, long-term benefits to the Afghan nation. This is predominantly because successful implementation of this option will allow the establishment of a new mining enterprise based on modern coal mining techniques.

120. Such techniques, correctly applied, would permit the development of a safer, more efficient, more productive and cheaper, coal extraction entity.

121. However, the establishment of such a (new) mining enterprise is predicated on the identification of a suitable coal resource which is amenable to the application of more modern techniques and systems. Currently, no such resource (while implied) is formally known.

122. If a suitable coal resource can be identified, considerable time, effort and money would be required to establish an operational mining entity. In the intervening period, it is, therefore, recommended that it is appropriate to explore and implement alternative options (either fully or in part).

This Report concludes that, overall, the most practicable route to the attainment of the (assumed) long-term objectives for the coal mining sector of Afghanistan would be to:

- *Accept the ultimate goal presented by Option 5 (Development and Expansion);*
- *Implement immediately the mechanism of “integration” as presented by Option 4 (Improvement and Integration) to provide short-term, intermediate gains based around the extant NCE entity;*
- *Commence the introduction of key reforms towards the requirements of “commercialisation” as presented by Option 3 (Transformation and Restructuring);*
- *Re-visit the proposed objective for “corporatisation” of NCE to review desirability;*
- *Locate and identify a new coal resource amenable to modern coal mining techniques;*

- *Plan, design and implement a new, modern coal mining facility on the identified resource.*

123. By staging a sequential, but “overlapping”, implementation of the recommended options it is felt that a practical (and pragmatic) solution to the need for improvement and reform of the (present) NCE paradigm can be most successfully achieved.

5 Proposed Strategy for Reform and Restructure

5.1 Strategic Approach

124. To develop a meaningful reform strategy and achieve the objectives (both explicit and implicit) outlined previously (see Section: “Formulation of Strategic Options”), it is necessary to consider all the components that currently influence the situation.

125. Given the difficult terrain, the complex relationships with local landowners / occupiers and the extant diversity of coal production sources when considered in aggregate, the proposals of this report aim to improve the present situation of NCE, but do not attempt to substantially or radically change the prevailing core MINING SYSTEM at the NCE operations in the immediate future.

126. The proposed Strategic Approach concentrates primarily not on change to the mining methods that prevail (though several important areas for improvement are specifically included), but on a major and substantial restructuring of the “Business Model” under which NCE operates.

127. Action towards substantial change and improvement (in the operating Mining System) awaits the identification and confirmation of a coal resource that is both of sufficient size and quality and is amenable to the application of more modern mining methodologies than those currently practised. Such actions for substantial change and improvement are, therefore, unlikely to require implementation during the immediate or short-term phase of the Reform & Restructure Programme (once undertaken), but will evolve and develop during the latter medium- and long-term phases of that programme.

128. As a central element of the proposed strategy, with the specific objectives of encouraging coal production and increasing the overall financial value of that production, NCE will be required to increase the annual coal production tonnages derived from controlled sources. These “controlled” sources being the combination of those coal mining operations directly controlled and managed by NCE and a growing group of “Sub-Contracted Suppliers” to NCE.

NCE will be required to increase the annual coal production tonnages derived from controlled sources.

129. By deliberately forcing management attention and focus onto increasing the annual coal production tonnages, NCE (and its management) will be continuously pressured to find / implement more efficient methods of operation, and to perform in a more commercially directed manner (and thereby effecting the principle of “Commercialisation”).

NCE will, in pursuit of the proposed strategy, be tasked with establishing formal contractual relationships in the form of “Permits” (to supply coal to NCE) with a number of (currently designated) “Independent Miners” (IM’s) and thereby engage these newly “permitted” mining operators as, now, “Sub-Contracted Suppliers” to the NCE.

130. It is a matter of record that these current “IM’s” operate without any recognised contract, license or legal entitlement to extract coal. They are, in fact, completely outside of any administrative control and act without sanction in pursuit of their own objectives.

131. While accurate and factual information is unavailable, it is generally surmised that such “IM’s” currently number in the thousands (rather than the tens or hundreds). Certainly, direct physical inspection of an extremely restricted sample of locations in the northern coal-bearing valleys confirms the presence of numerous such “unauthorised” coal extraction operations.

132. In consideration of individual size and organisation, it is generally accepted that these current “IM’s” encompass an extremely wide range of diversity. While some “IM’s” may be no more than a handful of men working informally together, others may represent villages (or similar local communities and tribal groupings). It has also been alleged that some substantial groups have been assembled (on a semi-formal, or certainly controlled and organised basis) to systematically extract coal in certain regions. Often, it is claimed, such larger groups may be dominated by a separate, controlling group or even individual chief / “strongman”. The coercive nature of some of these larger, controlled groups has been the subject of comment.

133. The implementation of the proposed strategy of permitted “Sub-Contracted Suppliers” (of coal, to NCE) will not only benefit NCE (by sourcing volumes of coal from “controlled” sources), but will also benefit the IM’s who become “Sub-Contracted Suppliers”: These IM’s, by becoming Sub-Contracted Suppliers, will benefit from gaining (among other advantages) the following:

- Security, for the license period over the rights to mine their designate areas;
- Provision of support and funding (from NCE) to implement agreed improvements in operations (and hence production) and the safety of those mining operations.

134. These “Permits” granted to the, now “Sub-Contracted Suppliers” (of coal to NCE), will consequently reward satisfactory performance and compliance through subsequent renewal of the Permit at the end of each Permit’s initial duration. NCE will be able to identify those former IM’s who are good “sub-contracted suppliers” and who are co-operating with this formalisation strategy⁵, while simultaneously being able to terminate (or decline to renew) the permits of those operators found to be non-compliant. Slowly this will assist in understanding the practices and operations (safety, efficiency, productivity, and selling behaviour) of each IM.

A key component of the proposed strategy holds that the management of NCE must be charged with the conduct of an appropriate Exploration Programme to locate and fully identify coal resources amenable to such exploitation (and extraction) using more modern (and inherently safer, more productive and cheaper) methodologies and systems.

135. Such Exploration Programme will have, as its primary objective, the location, delineation and confirmation of coal resources amenable to future exploitation by more modern mining methodologies than those currently practised.

For this objective (the conduct of an appropriate Exploration Programme) to be realised, it will be essential that the management of NCE be:

⁵ Formalisation is the most commonly used term to describe the formal integration of artisanal independent miners

- *Allocated the financial resources necessary for the defined programme of exploration;*
- *Supported by appropriate personnel with the requisite skills and training both to implement and manage said programme.*

136. The Proposed Strategy for Reform & Restructure, offered in this Report, fully allows for both of the above prerequisites to be accommodated by the ongoing development of the NCE business entity.

The strategy also holds that extensive consideration will need to be given (by the empowered stakeholders of NCE) to all aspects of product pricing (the coal sales price), purchase pricing (coal purchases), contract prices (with coal suppliers both “Contracted” and “Informal”) and monetary transfers (cash or profit ownership).

Similarly, the empowered stakeholders will be required to fully assimilate, evaluate and endorse the wider commercial and financial business philosophy that underpins the proposed strategy: Changes are proposed that substantially move the business model from its present situation as a State Owned Enterprise to one of a considerably more commercially motivated and entrepreneurially driven system.

137. It is noted that such changes in the business paradigm will provoke much debate and, undoubtedly, division of political opinion.

5.2 The Proposed Strategy

Summary Overview of Proposed Strategy

138. In brief summary, the core strategy proposed for NCE, is to increase the amount of coal (tonnage) produced from authorised and legally mandated (through the mechanism of formal permitting and the issue of the appropriate “Limited Duration Permit to Occupy and Extract Coal”, hereafter referred to as the “PERMIT”) COAL MINING OPERATIONS each year.

139. This annually increasing coal production tonnage is to be attained by a combination of two (2) basic approaches.

The First Element of Approach

The first element of approach, which will be both immediate and ongoing, while not demanding radical changes to the mining systems currently practised at those coal mines directly controlled and managed by NCE itself, will, however, require some basic improvements in the operating practices presently applied. These basic improvements will be directed at increasing the fundamental safety of the mining operation together with augmenting productivity levels.

The Second Element of Approach

The second element of the approach, (simultaneous with the first approach), requires the establishment of formalised supply relationships between NCE and selected, (currently) independent, mining operations (“IM’s”).

140. Such formalisation of relationships, through the signing of a formal “Contract for an Agreement to Supply” and the subsequent issuing of the appropriate “Limited Duration Permit to Occupy and Extract (Coal)”, will effectively convert the hitherto “independent” mining operators into permitted suppliers (or, “Sub-Contracted Suppliers”) of coal to the NCE.

Scheduled “Roll-out” of Proposed Strategy

141. **In the short-term (0-5 years)** the increase in annual production will be secured by:-

- Improving basic operations and production methods (and thereby Safety and Productivity) at the extant NCE coalmines;
- Beginning the “Formalisation” of the supply relationship between NCE and selected “Independent” coal miners, effectively converting those previously “independent” coal miners into “Sub-Contracted Suppliers” of coal to NCE.

The financial costs of improving operations / production methods and of formalising the supply relationship between NCE and selected “Independent” coal miners [referred to above] will be funded by using a proportion of the additional revenue generated from the additional annual production (obtained in the short- and medium-term).

142. **In the medium-term (5-10 years)** further increases in annual coal production will be secured by:

- The location and identification (for consequent exploitation) of new coal resources, which (because of their physical characteristics) will be amenable (suitable) to extraction by more modern, safer and more cost-effective mining methods than those currently practised;
- The ongoing development and expansion of “SUB-CONTRACTED SUPPLIER” relationships with (formerly) independent operators.

The activity to locate and identify suitable new coal resources (as referred to above) will be funded by using a proportion of the additional revenue received from the increased sales revenue generated by the additional annual production (obtained in the short- and medium- term).

143. **In the longer-term (10+ years)** further increases in annual coal production will be secured by:

- The establishment and development of actual more modern and more cost-effective coal mines on those new coal resources located and defined in the Medium Term (as referred to above).

Prerequisite Themes and Essential Conditions of the Proposed Strategy

144. The proposed strategy introduces the need for certain commercialisation initiatives or modifications to the existing NCE Business Model employed by NCE, namely:

- The need for the NCE business entity to retain earnings from the sale of coal, but remit a pre-agreed “Royalty” (or “License”) fee to the Government for the coal resources extracted and subsequently sold (whether that coal be extracted by NCE controlled and managed operations directly, or extracted by duly appointed “Sub-Contracted Suppliers”;
- That NCE, itself, be formally granted (or authorised with) the “Right to Mine” in defined physical areas or mining regions, and that NCE be assigned the right, authority and approval necessary to allow NCE to sub-contract such rights by the issuing of Permits (within specified and defined areas) to duly appointed IM’s (who shall be thereafter deemed “Sub-Contracted Suppliers” to NCE).

Essential Components of a “Formalised Methodology”

145. The essential component of the proposed strategy - not only in the short-term (1-5 years), but on the continuing basis from which ongoing review and refinement is effected – is the development and implementation of a “formalised methodology” as represented by the permitting process.

146. This “formalised methodology” will establish the mechanism whereby (former) IM’s can become Sub-Contracted Suppliers (of coal to NCE) and are gradually brought within the ‘control’ of NCE in a mutually beneficial manner.

147. Key components of the required “formalised methodology” include:

- Awarding of legally binding permits (on conclusion of the relevant “Contract to Supply Agreement”) to selected IMCs, and other suitable competent candidates, aspiring to become “contracted suppliers” (of coal) to the NCE;
- Such permits will have a duration of two (2) years, renewable on expiry by mutual agreement, subject to adequate performance by the permitted Sub-Contracted Supplier (SCS) and satisfactory fulfilment of the permit holder’s obligations and duties under the requirements of the “Contract to Supply Agreement”;
- The Contract to Supply Agreement together with the consequent Permit will formally, and in a legally recognised manner, award to the Sub-Contractor, for the duration of the permit period, entitlement to occupy, and extract coal from, a defined and designated physical area. Such Contract to Supply Agreement and associated Permit will specifically permit the licensee to conduct mining (and directly associated activities) for the extraction of coal from that physical area bounded by, and within, the defined limits established in the Contract to Supply Agreement and Permit;
- The aspirant Sub-Contracted Supplier will agree to sell all coal produced by themselves or by their agents or employees, only to NCE, via NCE, or to those purchasers referred to the Sub-Contracted Supplier by NCE;

- The aspirant Sub-Contracted Supplier will undertake to not sell or supply any coal produced by the SCS, his employees or agents to any third party other than those specifically referred to in the Contract to Supply Agreement;
- Under the terms of the Contract to Supply Agreement, NCE will undertake to purchase all clean coal that the Sub-Contractor produces and makes available for sale;
- The aspirant Sub-Contractor will agree to permit and accept the inspections of, and visits to, the SCS's mining operation(s) by Afghanistan Mines Inspectorate Personnel;
- The aspirant Sub-Contractor will agree to permit and accept the inspections of, and visits to, the SCS's mining operation(s) by Technical and Management staff of the NCE;
- Agreement by the Sub-Contractor to implement working practices that fulfil those basic safety and operating practices guidelines as defined or provided either by the NCE Technical and Management staff or by officers of Afghanistan Mines Inspectorate;
- Training and Technical Support to facilitate the safe and efficient operation of the SCS's mining activities will be provided to the Sub-Contractor (and any persons engaged by the Sub-Contractor) by the Technical and Management Staff of the NCE;
- Financial support (in the form of material "Capital Assets" comprising essential plant, machinery and equipment) will be made available by NCE to the Sub-Contractor. Such plant, machinery and equipment will remain the property of NCE until such time as the Sub-Contractor effects purchase of those items from NCE;
- The Sub-Contractor will undertake to maintain in good and serviceable condition those items of plant, machinery and equipment made available to the Sub-Contractor, and to return said items to NCE at the completion of the permit period. NCE Technical and Management staff will be accorded the right by the Sub-Contractor to conduct regular inspections of the items made available to the Sub-Contractor in order to verify that such items are in use and benefitting from correct maintenance and upkeep;
- The Sub-Contracted Supplier will undertake, under penalty of immediate cancellation of Permit and forfeiture of all rights and benefits accrued therein, not to dispose of, or otherwise reallocate, reassign or convert any of the assets entrusted to him.

148. Effectively, the aforementioned "formalised basis" (as elaborated above) will create the structural framework around which the actual "Contract to Supply Agreement" is drafted, enabling the establishment of approved and recognised "Sub-Contracted Suppliers".

Implementation of Formalised Methodology (“Sub-Contracted Supplier” Agreement)

149. It is noted and understood that policing the elements of the proposed Sub-Contracted Supplier agreement will prove to be difficult and challenging. Both NCE and the Afghanistan Mines Inspectorate will be required to assign and allocate sufficient staff of adequate capability to the task. Correctly applied towards the due objective, and in time, improvements will result.

NCE and the Afghanistan Mines Inspectorate will be required to assign and allocate sufficient staff of adequate capability to the task.

Table 1. Dimensions of Proposed Roll-Out Schedule

SOURCE OF COAL: TONNAGES SCHEDULE				Ref: SOURCEtonnagesSCHEDULE03		
For the Purposes of the PROPOSED STRATEDY for NCE REFORM						
Generic sources from which the required tonnages are to be obtained.						
YEAR	TOTAL TONNAGE SUPPLIED (tonnes per annum)	TONNES FROM NCE MANAGED MINES (tonnes per annum)	TOTAL TONNES FROM OUTSIDE SUPPLIERS (tonnes per annum)	TONNES FROM UNLICENSED SUPPLIERS (tonnes per annum)	TONNES FROM LICENSED SUPPLIERS (tonnes per annum)	NUMBER OF LICENSED SUPPLIERS (teams or gangs)
PRE-LAUNCH	1,500,000	600,000	900,000			
Year 1	1,800,000	700,000	1,100,000	850,000	250,000	50
Year 2	2,150,000	850,000	1,300,000	550,000	750,000	150
Year 3	2,600,000	1,050,000	1,550,000	300,000	1,250,000	250
Year 4	3,100,000	1,250,000	1,850,000	100,000	1,750,000	350
Year 5	3,750,000	1,500,000	2,250,000	0	2,250,000	450

5.3 Stakeholder Benefits and Advantages from the Proposed Strategy

150. This section of the report very briefly identifies the primary benefits and advantages accruing to each of the main “stakeholders” resulting from implementation of the proposed business reform strategy.

Benefits and Advantages to the Aspirant “Sub-Contracted Supplier”

Recognised Right of Occupancy

151. Perhaps the most significant benefit to an IMC who elects to become a permitted, Sub-Contract Supplier to NCE (by entering into a formal Contract to Supply Agreement) is the gaining of recognised occupancy and the associated right to extract coal. The duly permitted Contracted Supplier’s occupation of the designated and identified site from which coal is extracted will be formally and legally recognised, thereby removing the constant threat or risk that the unauthorised occupant must accept of being evicted (in all likelihood, forcibly) from that site.

152. Whilst the period of occupancy awarded to the permitted Sub-Contracted Supplier is not permanent (lasting only for the period of the permit), the opportunity (as a result of satisfactory performance – which is totally within the Contracted Supplier’s power to control) to extend or renew that permit will be always available.

153. This potential longevity of permit offers the Sub-Contracted Supplier both the security and confidence to invest time, effort and ultimately money into “his” venture – safe in the assurance that the enterprise can remain under his control. To foster a “sense of personal ownership” among individuals, who previously had none, is, perhaps, the first step towards creating a wider community of people who hold a shared commitment to the social and economic milieu in which they exist.

Guaranteed Sales

154. Also of substantial importance is the benefit / advantage offered by the “Contract to Supply Agreement” whereby NCE will undertake to ultimately buy all of the coal that the permitted Sub-Contracted Supplier produces. It is of note that in western market-economies, the concept of “guaranteed sales” (of all that a producer is able to supply) is, universally, beyond the most optimistic imaginings of even the most optimistic entrepreneur or business leader.

155. Knowledge of a guaranteed sales market will give the Sub-Contracted Supplier further confidence to invest in, and develop, the business entity that is now in his control. Secure in the opportunity to sell whatever he produces, the Sub-Contracted Supplier will have the assurance to expand and grow his business to its desired ultimate level.

Selling Price Guarantee

156. Closely related to the two preceding benefits (recognised “occupancy” and guaranteed sales), a third core benefit offered to prospective Sub-Contracted Suppliers by the intended “Contract to Supply Agreement” and subsequent “Permit” will be the inclusion of a pre-agreed fixed price for any consequent sale of coal from the Sub-Contracted Supplier to NCE.

157. Nominally effective for the whole life of the respective “Agreement to Supply” period, such sales price will be set at the initiation of the Contract to Supply Agreement and the issue of the respective Permit. Subsequent adjustments to the originally agreed “set price” will be possible, but only under exceptional circumstances and then by mutual agreement of both parties to the agreement (NCE and the Sub-Contracted Supplier). Upon renewal of the permit (every two years) the price can be renegotiated.

158. The commercial benefit to the aspirant Sub-Contracted Supplier is that he will be enabled to plan for future development and expansion of the embryonic business entrusted to him, with certainty regarding not only the purchase of all coal produced, but the price at which those purchases will be enacted. Jointly, a considerable advantage for any commercial entity aiming to enhance its position and increase its presence in the market.

Access to Capital Assets

159. Entry into a “Contract to Supply Agreement” (for coal to the NCE) and the acceptance of the consequent Permit, will immediately bring to the successful applicant access to a source of finance for the development of that applicant’s mining operation in the form of the provision of essential capital assets for use in. and the development of, that mining operation.

160. In a region where external investment or funding for any business venture is difficult to obtain (if even possible), then access to a readily available source of funding for investment in that venture becomes a considerable advantage.

It is intended that the proposed funding not be made available in the form of cash, but in specific “hard” capital assets (i.e. plant, machinery and equipment) that will be used to develop that particular mining operation (for which the funding has been provided) both in terms of its production capability (the tonnage of coal that the venture is able to produce) and the improvement in the safe operation of that mining operation.

161. It has been estimated that the monetary value of the initial investment into each permitted Sub- Contracted Supplier operation will be of the order of US\$ 32,600. This is itemised as follows:

Personal Protective Equipment (PPE)	US\$ 600
1 x Auxiliary Fan (10kW)	US\$ 10,000
Ventilation Ducting	US\$ 2,000
1 x Electricity Generator (15kW)	US\$ 5,000
1 x Air Compressor (5kW)	US\$ 5,000
Pneumatic Hammers and Air-Legs (2)	US\$ 10,000
Total per “Agreement to Supply”	US\$ 32,600

162. Certain assumptions have been made in arriving at the above figure. These are that:

- Average 6 men per gang (3 x “coal winning”, 3 x “support”);

- 3 x 25 (=75) “Coal Winning” Man-Days per Month;
- 300 “Coal Winning” days per year;
- 20 tonnes coal / gang / day will be produced on average as a minimum production level;
- 6000 tonnes coal / gang / year will be produced on average as a minimum.

163. It is proposed that, in drafting the exact wording of the “Contract to Supply Agreement”, careful consideration be given to the inclusion of a specific clause (or clauses) that will define target minimum volumes of production from each successful permitted Sub-Contracted Supplier. It is suggested that this minimum requisite be established at 6000 tonnes of clean coal per annum.

It is further recommended that the “Contract to Supply Agreement” includes provisions that:

- *NCE will retain legal title (i.e. ownership) of all capital assets provided to each Sub-Contracted Supplier;*
- *The Sub-Contracted Supplier will be obliged to return all capital assets in “good order” (due allowance being given for “fair wear and tear”) to NCE at the termination of the due license period (unless said items have been duly purchased by the Sub-Contracted Supplier⁶ and ownership entitlement thereby vested in the Sub-Contracted Supplier);*
- *The permitted Sub-Contracted Supplier will be formally obliged to maintain all capital assets in “good order” throughout the complete period of usage by the Sub-Contracted Supplier;*
- *The Sub-Contracted Supplier will be formally obliged to “make good” any shortfall, lack, damage or deficiency to the capital assets provided at the termination of the due license period;*
- *NCE will retain the right to withhold payments to the Sub-Contracted Supplier in order to make good any outstanding shortfall in the condition or presence of any capital asset previously provided to the Sub-Contracted Supplier.*

164. Even after the inclusion of the above recommended cautionary clauses into the “Contract to Supply Agreement” it is believed that the provision of the above assets represents an extremely attractive and desirable benefit to the aspirant Sub-Contracted Supplier.

165. Extensive discussion has revolved around both the practicality and the desirability of attaching some form of reimbursement or payment structure to the Capital Assets that are provided to the Sub-Contracted Supplier. Various possibilities exist:

⁶ Through a normal commercial purchase transaction with the sub-contracted supplier paying to NCE the commercial value of the assets. As a guide, such value can be assumed to be the purchase cost depreciated over two years.

- At one extreme, it is feasible to provide the proposed Capital Assets at the commencement of the permit period, retain legal title to those assets within NCE, require no interim or ongoing financial payment from the permitted Sub-Contracted Supplier for the use of those assets provided, and ultimately at the termination of the license period then to restore physical possession of those – now used – assets to NCE;
- At the other extreme, it is feasible to require some form of regular payment from the permitted Sub-Contracted Supplier in recognition of the assets being made available to that Sub-Contracted Supplier. In effect, this converts the provision of the assets into a form of “asset leasing” (or Rental) arrangement. Again, legal title (Ownership) of the assets remains with NCE throughout and at the termination of the license period then physical possession of those – now used – assets reverts to NCE;
- A median possibility also exists where, by effecting a series of regular payments from the permitted Sub-Contracted Supplier at prescribed intervals throughout the license period to the NCE, ownership and legal title to the assets provided could eventually be transferred to the Sub-Contracted Supplier.

After careful consideration, it is the recommendation of this report that – at least for the establishment period of the proposed scheme (say, 2-3 years) – the “Contract to Supply Agreement” should be drafted to reflect the requirements of Alternative 1, (no interim or on-going financial repayment or charge) above.

166. This structure, while allowing occupancy of the physical area to be exploited by the Sub-Contracted Supplier, offers the use of the essential Capital Assets to that Sub-Contracted Supplier without requiring any interim or ongoing financial payment from that Supplier for the use of those assets provided. Legal title to those assets provided will remain with Northern Coal Enterprise, and at the termination of the license period then physical possession of those – now used – assets will revert to NCE. It is, however, recommended that (even in this initial form) the Contract to Supply Agreement should make provision for the option whereby the Sub-Contracted Supplier is able to purchase those assets from NCE, and thereby effect a transfer of legal title and ownership of those assets.

Technical Support and Training

NCE will undertake, through its technically qualified engineers and managers to provide essential technical support and training to the Sub-Contracted Supplier.

167. Delivered both “on request” and on inception (of the Contract to Supply Agreement) the core basic training will be directed towards:

- Improving the operational and production methodology of the Sub-Contracted Supplier;
- Increasing, thereby, the safety standards of the Sub-Contracted Supplier’s operation with resultant reductions in accidents, injuries and fatalities.

168. The provision of technical support and training is considered as a universal benefit: By improving operational methodology, productivity and operational safety the training and support provided can only enhance the Sub-Contracted Supplier's position: Effectively enabling the Supplier to produce more, for longer, more safely and at less cost (both direct and indirect).

Benefits and Advantages to Northern Coal Enterprise (NCE)

169. The principal benefit to Northern Coal Enterprise, itself, from the implementation of the Proposed Strategy for Reform & Restructure, is that NCE will be able to significantly increase the annual coal production tonnages that (at least nominally, if not in physical reality) it produces and makes available for sale to the Customer.

170. Without any need to increase either the size or number of directly "controlled and managed" mining operations under its remit, NCE will – under the proposed strategy - effectively more than double (in a five year period) the quantity of coal that it makes available to the Customer. This represents an approximate, average annual increase of some 22% (year-on-year).

171. While this substantial annual expansion will not be achieved without considerable effort on behalf of the NCE, the commercial and organisational "push" that will be required (even in aggregate) will be considerably less than the endeavour that would have been expended to grow NCE's mining operations by the more conservative means of opening additional NCE directly controlled and managed mines.

Benefits and Advantages to the Afghanistan State

172. The outstanding, and immediate, benefit and advantage to the Afghanistan State, resulting from the implementation of the Proposed Strategy for Reform & Restructure of NCE, are those that accrue to the State Treasury (Ministry of Finance) in the form of increased financial revenues resulting from:

- Increase of the coal sales volumes through the controlled mechanism of NCE; and
- Reduction in avoidance of appropriate "royalty" remittances to the State (by coal purchasers, currently buying coal directly from those IM's operating outside of the formal NCE mechanism).

173. In the longer term, the Afghanistan State will benefit further from the formal assimilation of numerous individuals whose current economic efforts to exploit the resources of the State (and thereby the people of Afghanistan) are directed exclusively towards personal gain and the avoidance of broader civic responsibility.

174. Again in the longer term, the increased financial revenues accruing to NCE from the implementation of the proposed strategy will permit the exploration and identification of additional coal resources and, ultimately, the establishment of a more modern, safer, and more productive coal mining sector in Afghanistan.

175. On a deeper level of consideration, it can be argued that the implementation of the proposed strategy, and the consequent evolution of a not-insubstantial group of "sub-contracted suppliers", effectively increases the number of entrepreneurial "owner-manager" business entities

in Afghanistan. Such evolution further supports the commitment of those involved into the wider socio-economic framework of the country. It is often the case that those who hold a financial “stake” in any culture, and who gain from that culture’s further development, are much less likely to seek the dissolution of that culture.

Benefits and Advantages to Coal Purchaser

176. In consideration of the situation of the “coal purchaser” (who may often not be the end-consumer of the coal being purchased, but rather a “middle-man” or facilitator of the broader supply chain between original source of the product and that product’s eventual end-user) it is important to recognise the key advantage that will accrue from “certainty of supply”.

177. Once the proposed strategy is in place, the prospective coal purchaser will be able to approach NCE secure in the knowledge that he (the purchaser) will be directed to a confirmed source of coal supply (being either a directly managed NCE mining operation, or a known “Sub-Contracted Supplier”).

178. Not only will the prospective coal purchaser (once NCE has been approached) be made aware of a confirmed source of supply (for the prospective purchaser’s requirements), but the prospective purchaser will also be made aware of the price that will apply to the purchase. No longer will the prospective purchaser be required to enter into negotiation and debate with a number of potential suppliers, but the purchaser can proceed with certainty – having now only to accept or reject the offer.

5.4 Stakeholder Commitments and Obligations under the Proposed Strategy

179. This section of the report presents, in concise form, the alternative balancing points to those benefits and advantages identified in the preceding sections.

180. Termed “commitments and obligations”, this section could equally be considered as the “costs”, for each of the respective stakeholder categories, of support for, and implementation of (and participation in) the proposed business reform strategy.

Commitments and Obligations for the Aspirant “Sub-Contracted Supplier”

Commitment of Sole Supply

181. The aspirant Sub-Contracted Supplier will agree to sell all coal produced by themselves or by their agents or employees, only to NCE, via NCE, or to those purchasers referred to them by NCE. By inference, therefore, the aspirant Sub-Contracted Supplier will also undertake to not sell or supply any coal produced by the Supplier to any third party other than those specifically referred to in the Contract to Supply Agreement.

182. While it might be deemed that the conversion of formally independent miners into “tied” Sub-Contracted Suppliers represents a disadvantageous “restraint of trade” upon those IM’s, it is considered that the commitment by NCE to purchase – at a pre-agreed price – all coal produced presents an overall advantage.

Access to Capital Assets

183. As previously noted, under the “Benefits and Advantages” available to the aspirant Sub-Contracted Supplier, the provision of essential capital assets for use in, and the development of, that mining operation will be subject to certain constraints placed on the recipient (i.e. the permitted Sub-Contracted Supplier). Principal among these constraints are:

- NCE will retain legal title (i.e. ownership) of all capital assets provided to each permitted Sub-Contracted Supplier;
- The Sub-Contracted Supplier will be obliged to return all capital assets in “good order” (due allowance being given for “fair wear and tear”) to NCE at the termination of the due license period;
- The Sub-Contracted Supplier will be obliged to maintain all capital assets in “good order” throughout the complete period of usage by the Sub-Contracted Supplier;
- The Sub-Contracted Supplier will be required to “make good” any shortfall, lack or damage to the capital assets provided at the termination of the due permit period;
- The Sub-Contracted Supplier will undertake to use the Capital Assets provided in a correct and appropriate manner, following the guidance and training provided, and will meet all associated costs of operation;
- NCE will retain the right to withhold payments to the permitted Sub-Contracted Supplier in order to make good any outstanding shortfall in the condition or presence of any capital asset provided.

It is the recommendation of this report that – at least for the establishment period (say, 2-3 years) – the “Agreement to Supply” should be drafted to reflect the requirements “to provide the proposed Capital Assets at the commencement of the license period, retain legal title to those assets within NCE, but require no interim or ongoing financial payment from the licensed supplier for the use of those assets provided, but, ultimately at the termination of the license period then to restore physical possession of those – now used – assets to NCE.”

184. This structure, while providing for recognised occupancy of the physical area to be exploited by the permitted Sub-Contracted Supplier, offers the use of the essential Capital Assets to that permitted Sub-Contracted Supplier without requiring any interim or ongoing financial payment from the said supplier for the use of those assets provided.

Commitments and Obligations for Northern Coal Enterprise (NCE)

Commitment to Purchase all Coal Produced

185. A core tenet of the Contract to Supply Agreement, entered into between NCE and the aspirant Sub-Contracted Supplier, is that NCE will undertake to purchase all coal that the said Sub-Contracted Supplier (either directly or through his agents and employees) is able to provide. Without this undertaking the Contract to Supply Agreement is both unlikely to be attractive to the

aspirant Sub-Contracted Supplier and, further, would leave open the possibility of coal sales (by the Sub-Contracted Supplier) to third parties.

NCE will undertake to purchase all coal that the said Sub-Contracted Supplier (either directly or through his agents and employees) is able to provide.

186. The aforementioned core tenet is not difficult to accommodate (in any legal sense) in the proposed Contract to Supply Agreement that will be enacted between NCE and the Sub-Contracted Supplier, but the implementation of such requirement is more demanding (of NCE).

187. It is proposed that any such difficulty of implementation be mitigated (in consideration of NCE) by cautious wording of the proposed Contract to Supply Agreement: The agreement must avoid all specific reference to the exact timing of any individual coal purchase, effectively allowing the fulfilment of the commitment (to purchase all coal produced) to be indefinitely flexible.

188. While *NCE will be cautioned to make all reasonable efforts to ensure that all coal produced by any individual Sub-Contracted Supplier is timeously sold*, and will respond sympathetically to any reasonable request for assistance (to effect a sale of coal), NCE will avoid legal obligation to effect any individual sale of coal at a specific time or date.

Commitments and Obligations for Afghanistan State

189. The commitments and obligations placed on the Republic of Afghanistan in respect of the proposed Contract to Supply Agreement entered into between NCE and an aspirant Sub-Contracted Supplier are intentionally minimised.

190. Effectively, all responsibilities, commitments and obligations are assumed by the NCE. It is the NCE, as a legally recognised “corporate body”, that enters into the Contract to Supply Agreement with the aspirant licensed Contracted Supplier; it is the NCE that issues the appropriate Permit to the Sub-Contracted Supplier; it is the NCE that accepts responsibility for the performance of all duties identified in both the “Contract to Supply Agreement” and the respective “Permit”.

The sole obligation of the Afghanistan State is to ensure that the NCE is appropriately empowered to fulfil the requirements of the proposed strategy.

More specifically, NCE must be enabled to:

- *Establish formal contractual relationships in the form of “Contract to Supply Agreements” and consequent “Permits” with a number of (currently designated) “Independent Miners” (IM’s) and engage these newly permitted mining operators as “Sub-Contracted Suppliers” (of coal) to the NCE;*
- *Retain earnings from the sale of coal, but remit a pre- agreed “Royalty” (or “License”) fee to the Government for the coal resources extracted and subsequently sold (whether that coal be extracted by NCE controlled and managed operations directly, or extracted by duly appointed “Sub-Contracted Suppliers”.*

In accordance with the above, NCE, itself, will require to be formally granted (or authorised with) the “Right to Mine” in defined physical areas or mining regions, and

that NCE be assigned the right, authority and approval necessary to allow NCE to sub-allocate such rights (by the issuing of Permits within specified and defined areas) to duly appointed IMC's (who shall be therefore deemed "licensed Contracted Suppliers" to NCE).

191. If the Afghanistan State will satisfy the two fundamental requirements stated above then, thereafter (with the exceptions of periodic oversight, audit and review) the obligations placed on the State by the proposed strategy become negligible.

Commitments and Obligations for the Coal Purchaser

192. The Coal Purchaser, whether in the form of a "final consumer" or as an intermediary (coal trader / "middle-man") faces no additional commitment or obligation as a result of the implementation of the proposed strategy.

193. Every Coal Purchaser (provided that he had observed the correct and legitimate procedures) who had previously obtained coal from NCE will not have to accommodate any change.

194. Those Coal Purchasers, however, who had previously elected to purchase coal from the unauthorised sector and to avoid the payment of the requisite charges and tariffs, will find that it becomes increasingly difficult to find suitable suppliers as the proposed strategy is progressively implemented.

6 Methodology of Reform and Restructure Strategy

6.1 Outline of Methodology

195. The methodology applied to the implementation of the proposed strategy for reform and restructure of Northern Coal Enterprise is one of gradual, incremental (but systematic) development.

196. There is no proposed intention to attain 100% “roll-out” of the programme for the “incorporation” of (hitherto) independent mining operators either instantaneously or in a very short time-frame. Rather, complete implementation of the scheme is scheduled to be achieved over a five (5) year period.

197. Target objectives (for the programme of “incorporation”) have been modestly set at fifty (50) “Permitted Sub-Contracted Suppliers” (of coal) during the first year of the programme, rising to one hundred (100) – representing just two (2) new additions each week - in the subsequent years.

198. This modest scheduled rate has been deliberately chosen to:

- Ensure initial implementation focus remains on correct and high quality of application (of the scheme). NCE must be certain that it recruits suitable and enthusiastic IMC’s to become Sub-Contracted Suppliers, and that all participants in the scheme are fully supported, developed and encouraged during the challenging initiation period;
- Allow the NCE implementation team sufficient time to identify and resolve any operational issues and problems encountered with the scheme;
- Accommodate the likely “natural acceleration” of acceptance of the scheme as it is successfully applied.

It will, however, be essential that the core NCE team charged with the implementation of the scheme be fully trained (in the requirements of the scheme) and be able to operate and deliver the constituent elements of the scheme from “Day One” of the scheme’s roll-out.

The above objective will require that an appropriate Core Team (for the implementation and operation of the scheme) be selected and made available prior to the formal launch of the scheme. It is recommended that the selected Core Team members (together with their duly assigned Leader and Mentors) be fully available at least three months before the target launch date of the scheme.

6.2 Methodology: Required Core Team Composition

199. It is suggested that the Core Team for the initial implementation and subsequent operation of the proposed scheme (though consequent expansion of team member numbers may be necessary as the scheme expands) be as follows:

Table 2. Table of Core Team Composition Numbers (Initial Strength).

Job Title	Number	Main Responsibilities & Duties
Team Leader / Manager	1	Reporting to the appointed Functional Director, responsible for all aspects of the development and implementation of the scheme.
Advisory Mining Engineer	1	Reporting to the Team Manager (or, when appropriate, an Assistant Team Manager), responsible for inspection, training, development and operational guidance of the mining activities of Sub-Contracted Suppliers.
Advisor Health & Safety	1	Reporting to the Team Manager (or, when appropriate, an Assistant Team Manager), responsible for inspection, training, development and operations guidance of the Health & Safety implications of Sub-Contracted Supplier operations.
Advisor Ventilation & Mine Planning	1	Reporting to the Team Manager (or, when appropriate, an Assistant Team Manager), responsible for inspection, training, development and operations support of the Ventilation & Mine Planning aspects of Sub-Contracted Supplier operations.
Membership Canvassers	2	Reporting to the Team Manager (or, when appropriate, a designated Assistant Team Manager), responsible for the identification of prospective Sub-Contracted Suppliers, initial supplier contacts, scheme advertising and promotion, supplier contract closure.
Application Auditors	1	Reporting to the Team Manager (or, when appropriate, a designated Assistant Team Manager), responsible for inspection, review and approval of prospective Sub-Contracted Supplier contracts. Control, support and co-ordination of Membership Canvasser activities.
Logistics Clerks	1	Reporting to the Team Manager (or, when appropriate, a designated Assistant Team Manager), responsible for collation of Sub-Contracted Supplier data, coal availabilities and Purchase Request allocations to Sub-Contracted Suppliers.
Scheme Administrators	2	Reporting to the Team Manager (or, when appropriate, a designated Assistant Team Manager), responsible for receipt of payments for purchases and payments to Sub-Contracted Suppliers. Record keeper for assigned Capital Assets allocations and status.

200. With respect to the preceding table it is noted that specific numbers and responsibilities may require to be amended in order to accommodate actual skill levels and aptitudes of the available team members.

Table 3. Table of Core Team Composition Numbers (Final Strength)

Job Title	Number	Main Responsibilities & Duties
Team Leader / Manager	1	Reporting to the appointed Functional Director, responsible for all aspects of the development and implementation of the scheme.
Assistant Team Manager	2	Reporting to the Team Manager, responsible for those aspects of the overall development and implementation of the scheme as are assigned to each Assistant Manager. The number of Assistant Managers may be required to increase beyond two as the scheme develops and expands. Appropriate decision to be taken by NCE Management.
Advisory Mining Engineer	4	Reporting to the Team Manager (or, when appropriate, the Assistant Team Manager), responsible for inspection, training, development and operations support of the mining activities of Sub-Contracted Suppliers.
Advisor Health & Safety	4	Reporting to the Team Manager (or, when appropriate, an Assistant Team Manager), responsible for inspection, training, development and operations support of the Health & Safety aspects of Sub-Contracted Supplier operations.
Advisor Ventilation & Mine Planning	4	Reporting to the Team Manager (or, when appropriate, an Assistant Team Manager), responsible for inspection, training, development and operations support of the Ventilation & Mine Planning aspects of Sub-Contracted Supplier operations.
Membership Canvassers	4	Reporting to the Team Manager (or, when appropriate, a designated Assistant Team Manager), responsible for the identification of prospective Sub-Contracted Suppliers, initial supplier contacts, scheme advertising and promotion, supplier contract closure. (As scheme develops these positions may be reduced in number to maintain a “drop-out” replacement function only).
Application Auditors	2	Reporting to the Team Manager (or, when appropriate, a designated Assistant Team Manager), responsible for inspection, review and approval of prospective Sub-Contractor Supplier contracts and permits. Control, support and co-ordination of Membership Canvasser activities. (As for Membership Canvassers, when the scheme develops these positions may be reduced in number to maintain a “drop-out” replacement function only).
Logistics Clerks	8	Reporting to the Team Manager (or, when appropriate, a designated Assistant Team Manager), responsible for collation of Sub-

Job Title	Number	Main Responsibilities & Duties
		Contracted Supplier data, coal availabilities and Purchase Request allocations to each licensed Contracted Supplier.
Scheme Administrators	8	Reporting to the Team Manager (or, when appropriate, a designated Assistant Team Manager), responsible for receipt of payments for purchases and payments to Contracted Suppliers. Record keeper for assigned Capital Assets allocations and status.

201. With respect to the preceding table and as noted for the preceding sub-section, it is noted that specific numbers and responsibilities may require to be amended in order to accommodate actual skill levels and aptitudes of the available team members, together with the state of development of the overall scheme.

6.3 Methodology for Performance of a “Sale of Coal”

202. The action sequence associated with the implementation of a “Sale of Coal” as the consequence of an intending Coal Purchaser submitting a request to purchase coal (“Coal Purchase Order”) to NCE will be as follows:

- Intending Coal Purchaser places details of “Coal Purchase Order” (i.e. details of the coal that is required or requested to be purchased) with the designated NCE Office or Official;
- Designated NCE Office produces costed invoice for “Coal Purchase Order”, giving details of selected source of supply (confirming “NCE Operation” or “Sub-Contracted Supplier”), together with monetary cost of “Coal Purchase Order” (hereafter referred to as a “Costed Invoice”). ***NB: At this stage of the process the key decision that must be made is the selection of the “Source of Supply”. To make this decision the designated NCE Office must have accurate, current knowledge of coal stocks availability and the respective standard selling prices for those coal stocks;***
- The Coal Purchaser must now decide whether to accept or reject the offered coal at the price and conditions detailed in the “Costed Invoice”. ***NB: It may be deemed more efficient to give the necessary source & cost details to the Coal Purchaser verbally, securing a verbal acceptance thereto, before completing a written copy of the necessary “Costed Invoice”;***
- The Coal Purchaser, accepting the proffered “Costed Invoice” (which, in legal terms has now become an “Accepted Invitation to Treat”) contacts an approved Bank, and makes payment (to the appropriate NCE bank account) for the monetary cost stated on the, “Costed Invoice”. ***NB: It is essential to establish the overall mechanism for payments (see Section 7.6) prior to implementation of the scheme as this will determine the details that will require to be shown on the “Costed Invoice” and the amount that must be paid at the Bank;***

- Bank issues Coal Purchaser with “Receipt of Payment” or “Proof of Payment” for the transaction. **NB: The aforementioned receipt or proof of payment could either be as a Confirmation Stamp on the original “Costed Invoice”, or as a separate receipt document. The essential considerations being that the receipt – in whatever form it is produced – must show the amount of money received, from whom, the bank account to which the monies have been credited, the reference number of the Costed Invoice, and the date of the transaction;**
- The Coal Purchaser goes to the selected source of supply (as given on the Costed Invoice) taking the – now receipted – Costed Invoice to that source;
- The Coal Purchaser surrenders the receipted Costed Invoice to the designated Source Supplier;
- The Source Supplier provides the Coal Purchaser with the quantity of coal stated on receipted Costed Invoice, retaining the receipted Costed Invoice;
- At this stage, there are three alternative courses of action depending on the exact “payment mechanism” that NCE has selected for the scheme (Refer section 7.6) and the specified Source Supplier:

Option 1 – When the Source Supplier is either an NCE controlled and managed mine or a Sub-Contracted Supplier who has elected to be paid by Bank Transfer – The Source Supplier submits receipted Costed Invoice to NCE as request for payment.

Option 2 – When the Source Supplier is a Sub-Contracted Supplier who has elected to be paid in cash for the coal supplied to Coal Purchasers, but this payment is to be effected (by NCE) in cash – Contracted Supplier takes collected, receipted Costed Invoices to NCE and receives in return due payment in cash.

Option 3 – When the Source Supplier has elected to be paid directly in cash by the Coal Purchaser – The Coal Purchaser pays the Source Supplier (in the event that this is a Sub-Contracted Supplier to NCE) for the quantity of coal provided, at the price-per-tonne specified on the Costed Invoice.

Source Supplier submits receipted Costed Invoice to NCE as proof of invoice fulfilment.

- NCE verifies receipted Costed Invoice, updating NCE accounting and transaction records appropriately. **NB: At this stage it is important that both financial and operational records be updated, and that regular reconciliations (together with outstanding “balance” amounts, to provide adequate oversight of the extant situation);**

- Where appropriate, NCE collates Costed Invoices received from each Sub-Contract Supplier, then authorises and effects any payment that is due to that Sub-Contract Supplier. ***NB: Obviously, if the Source Supplier is an NCE controlled and operated mine then no such transfer is required, from the appropriate NCE bank account to the respective Contracted Supplier bank account.***

6.4 Methodology for Support and Development of Sub-Contracted Suppliers

203. The proposed strategy for the implementation of a scheme whereby (formerly) Independent Miners (IM's) are systematically converted into permitted "Sub-Contracted Suppliers" (of coal to NCE, either directly or via Coal Purchasers) is predicated on the ongoing support and development of those Sub-Contracted Suppliers and the mining operations that they control.

204. A fundamental component in the "package" of benefits that NCE will offer to aspirant Sub-Contracted Suppliers is one of ongoing training and capacity building for the Supplier and his staff.

NCE will undertake, through its technically qualified engineers and managers to provide essential technical support and training to the permitted Sub-Contracted Supplier.

205. Delivered both "on request" and on inception (of the Contract to Supply Agreement) the core basic training will be directed towards:

- Improving the operational and production methodology of the Sub-Contracted Supplier;
- Increasing, thereby, the safety standards of the Sub-Contracted Supplier's operation with resultant reductions in accidents and fatalities.

206. The provision of technical support and training is considered as a universal benefit: By improving operational methodology, productivity and operational safety the training and support provided can only enhance the permitted Sub-Contracted Supplier's position: Effectively enabling him to produce more, for longer, at less cost (both direct and indirect). This training and technical support, with the aim of facilitating the safe and efficient operation of the Sub-Contracted Supplier's mining (and associated) activities must be provided both to the Sub-Contracted Supplier and any persons engaged by that Sub-Contracted Supplier.

While it would be unreasonable to insist that training and technical support for the Sub-Contracted Supplier should be made available "on demand" and without limitation, NCE must ensure that it assigns sufficient adequately qualified personnel to the task as to permit the timely provision of all such training and development as is deemed reasonable.

207. As a minimum, it is proposed that NCE develop a structured programme for the training and development of each Contracted Supplier that encompasses the following elements:

1. Initial audit of Sub-Contracted Supplier operations with concentration on operational practices, safety and environmental impacts;
2. Establishment and identification (in collaboration with the Sub-Contracted Supplier) of future goals, aims and ambitions (in respect of the Sub-Contracted Supplier's coal mining operation);
3. Formulation of an itemised training program being duly recognisant of the findings of a) and b) above. Such programme to be restricted to the duration of the Permit granted to the Sub-Contracted Supplier.

208. The provision of appropriate training and technical support by NCE to each of the Sub-Contracted Suppliers (to facilitate the safe and efficient operation of that Sub-Contracted Supplier's mining activities) will require that NCE make available sufficient suitably qualified (and competent) professional staff to fulfil that obligation.

It is recommended that such staff be selected, with due regard to individual capability, from the ranks of existing technically qualified engineers and managers employed by NCE. The numbers of qualified professional staff required are proposed in Tables 2 and 3 herein.

It is further recommended that the initial requirement for qualified professional staff (which is much less than the final requirement) be selected and be in place some months before the "Sub-Contracted Supplier scheme" be launched.

209. Working with their Scheme Team Leader / Manager, an early allocation will enable the selected "Inception Team" (of Managers, Engineers, Professional and Support Staff) to prepare and develop the detailed material and programs that will be required once the Scheme is initiated.

It is the recommendation of this Report that the Inception Team be in place not less than three (3) months prior to the formal inauguration of the scheme (and preferably six months prior).

This Report recommends that one of the priority tasks given to the Inception Team of qualified professional staff (aided by whichever functional specialists are deemed necessary) should be the creation of a "Technical Guidance Document" for issue to (and use by) each of the Sub-Contracted Suppliers.

210. The "Technical Guidance Document" must provide the essential, practical guidelines and instructions that each Sub-Contracted Supplier will need (and be expected to implement) at each respective mining operation in order to conduct safe and efficient mining operations.

211. It is envisaged that the "Technical Guidance Document" will present the required "Standard Procedures" and "Required Methods and Practices" that all permitted Sub-Contracted Suppliers will be expected to employ in the mining operations under their control and direction. The "TGD" will be expected to specifically detail not only "what should be done", but also highlight those acts and omissions that "should not be done".

It is the recommendation of this Report that the development of the TGD should be progressed in close consultation with the Department of Mining "Mines Inspectorate"

to avoid any divergence of required and recommended practice. The development of the TGD in association with the Mines Inspectorate may also assist in the further development and implementation of appropriate legislation in the form of the necessary “Mining Law (Coal Mines)”.

212. With respect to the aforementioned TGD, it is the prevailing intention of this Report (and the strategy that it proposes) that the basis of the TGD be a co-operative environment of learning and skills development. The prescribed guidance, standards and rules (and their respective enforcement) must not be allowed to override the primary objectives of training and competence building. It is intended that, rather than through the rigid legal enforcement of rules, the proposed scheme should be “self-enforcing” as a result of the benefits that it provides.

213. To this end, it will be required of both NCE and the Sub-Contracted Supplier that the training provided be fully documented and agreed as delivered between the parties, so that records of acquittal of contractual agreement are detailed and to ensure that skills development and progress is documented to assist in overall knowledge of sector reforms.

214. It is considered that, ultimately, failure by any Sub-Contracted Supplier – after full training, support and guidance has been provided - to respect and employ the “Standard Procedures and Practices” (that will be explained and presented in the “Technical Guidance Document”) may be grounds for the revocation and cancellation of any permit issued to such Sub-Contracted Supplier.

215. The “Technical Guidance Document” will become an essential tool in the implementation and control of all aspects of the mining operations conducted by each Sub-Contracted Supplier. It (the Technical Guidance Document) will both provide the preferred model for “how” mining operations should be performed, and direct a template for the contents of the technical training and support modules that will be offered to the Sub-Contracted Suppliers.

6.5 Methodology for Management of the Contracted Supplier Scheme

216. Reference has been made in the preceding sub-section to the need to develop – prior to the outset of the scheme – a “Technical Guidance Document” for use by all Sub-Contracted Suppliers.

217. A core tenet of the proposed scheme for the establishment of (formally recognised) permitted Sub-Contracted Suppliers is the provision of financial support (in the form of material “Capital Assets” comprising essential plant, machinery and equipment) to the Sub-Contracted Supplier. This financial support will be made available by NCE to the permitted Sub-Contracted Supplier, but such plant, machinery and equipment as are provided will remain the property of NCE until such time as the Sub-Contracted Supplier either returns those provided assets to NCE or effects purchase of those items (with consequent transfer of ownership title to the Sub-Contracted Supplier) from NCE.

218. In support of the provision of those capital assets, NCE will have a responsibility for the necessary training (of the Sub-Contracted Supplier receiving those assets) in the correct use, operation and maintenance of those assets. It is expected that such necessary training will be

provided both prior to allocation, and on receipt, of those assets by the permitted Sub-Contracted Supplier.

NCE will have a responsibility for the necessary training (of the Sub-Contracted Supplier receiving those assets) in the correct use, operation and maintenance of those assets.

It will be part of the ongoing responsibility of NCE staff, during regular visits to (and inspection of) the Sub-Contracted Supplier's mining operation, to confirm that the assets provided are:

- *Present and available at the Contracted Suppliers mining operation;*
- *Correctly used;*
- *Maintained in an acceptable condition (in a safe, useable state).*

219. It is considered that failure by any Sub-Contracted Supplier to fully meet the conditions attached to the provision of the capital assets should be grounds for the revocation and cancellation of any permit issued to such Sub-Contracted Supplier (after reasonable instructions, training and support has been given by qualified NCE personnel, and such training, including an assessment of capability and cooperation, has been adequately documented by NCE, thus providing evidence of sufficiency of such training and sufficiency of effort by NCE to assist the Sub-Contracted Supplier concerned).

220. In respect of administrative matters: The NCE team charged with operation of the scheme must ensure that:

- A system is in place whereby each Sub-Contracted Supplier will regularly (probably at weekly intervals) inform the designated person (or their appointed deputy) in the scheme's "Core Team" of the quantity (estimated tonnage) of "free" clean coal currently available at the Sub-Contracted Supplier's site, together with the anticipated further tonnage (of clean coal) that is expected to be made available in the week ahead (of the time of notification);
- At regular (probably weekly) intervals the designated person above, will notify the scheme's Team Leader / Manager of expected coal availabilities and jointly will establish priorities for the uptake of available clean coal in respect of anticipated customer orders;
- Those technical and professional staff charged with conducting visits to Sub-Contracted Supplier sites are instructed to estimate both the quantity of clean coal available "on site" at the time of the visit, and to form an opinion as to the likely production capability of the Contracted Supplier in the immediate future. Such information to be communicated to the designated person;
- The designated person (or appointed deputy) will maintain, from the information provided, a continuously updated record of available clean coal stocks at each Sub-Contracted Supplier site. Such record to be made available to the scheme's Team Leader / Manager;

- The designated person (or appointed deputy) maintains an updated record of customer sales assigned to each Sub-Contracted Supplier. Such record to be made available to the scheme's Team Leader / Manager;
- A financially competent team member will reconcile each week the records of coal stock availability / anticipated coal production / assigned customer orders / payments to Sub-Contracted Suppliers and immediately notify the scheme's Team Leader / Manager of any anomalies or inconsistencies;
- A financially competent team member maintains updated records of the capital assets issued to each Sub-Contracted Supplier, agreed schedules for any payments towards the purchase of such assets by the Sub-Contracted Supplier, actual payments received from each Sub-Contracted Supplier, and deterioration of asset value when reported by the technical and professional staff following their site inspections. Such records to be made regularly available to the scheme's Team Leader / Manager;
- Such measures and procedures as are deemed necessary by the NCE Finance Director to ensure the correct and legitimate operation of the scheme are both implemented and followed.

It is the recommendation of this Report that the scheme's Team Leader / Manager or duly appointed designate (supported by whichever specialist assistance is deemed necessary) make regular visits in person to each Contracted Supplier's operation.

221. The frequency of such visits should reflect the perceived legitimacy of the conduct of the Sub-Contracted Supplier's operation, any reported financial anomalies, difficulties or issues report by Technical and Professional staff following routine inspections (of the Sub-Contracted Supplier's operation).

6.6 Methodology for Coal Sales Receipts and Licensed Contractor Payments

222. A fundamental consideration in the proposed strategy is the selection of the exact mechanisms whereby:

- NCE receives payment for the coal sales effected;
- Sub-Contracted Suppliers are paid for the coal each makes available (for NCE to sell).

223. Broadly, the main alternative systems for effecting the requisite monetary receipts and payments transactions can be grouped into three categories. These three categories are not mutually exclusive, and reflect the differing "money transfer" practices that could be enacted in order to accomplish the primary objectives (i.e. That NCE receive all due payment for the coal that it sells, and that the Sub-Contracted Suppliers are correctly compensated for the coal that they supply).

224. The main alternative systems being:

- Category 1 – Payments and Receipts by Bank Transfer;
- Category 2 – Payments and Receipts by Cash Transactions;
- Category 3 – Hybrid System: Partial Receipt by Bank Transfer, Payment by Cash.

Category 1 – Payments and Receipts by Bank Transfer System

225. Probably the preferred system (certainly in modern Western economies) for effecting both monetary receipts and payments.

226. This Report strongly recommends that, if it was practicable (and operationally feasible) then all Sub-Contracted Suppliers be required to possess a “Business Current Account” with a recognised Afghan bank. (The only constraint being that such bank be able to receive and action automated money transfers).

227. Under this category of payments and receipts the following mechanisms would apply:

1. Coal Purchaser places details of “Coal Purchase Order” with designated NCE Office or Official;
2. Designated NCE Office produces costed invoice for “Coal Purchase Order”, giving details of selected source of supply (NCE Operation or Contracted Supplier), together with monetary cost of “Coal Purchase Order” (hereafter referred to as a “Costed Invoice”);
3. Coal Purchaser contacts Bank, and makes payment in full (to the appropriate NCE bank account) for the monetary cost stated on the, now costed, “Coal Purchase Order”. (Hereafter referred to as a “Costed Invoice”);
4. Bank issues Coal Purchaser with “Receipt of Payment”;
5. Coal Purchaser goes to the selected source of supply (as given on the Costed Invoice) taking the – now receipted – Costed Invoice to that source;
6. Coal Purchaser surrenders the receipted Costed Invoice to the designated Source Supplier;
7. Source Supplier provides Coal Purchaser with quantity of coal stated on receipted Costed Invoice, retaining the receipted Costed Invoice;
8. Source Supplier submits receipted Costed Invoice to NCE as request for payment;
9. NCE verifies receipted Costed Invoice;
10. NCE initiates bank transfer of funds, corresponding to the due amount shown on the receipted Costed Invoice submitted by the Source Supplier (obviously, if the Source

Supplier is an NCE controlled and operated mine then no such transfer is required), from the appropriate NCE bank account to the respective Sub-Contracted Supplier bank account.

Category 2 – Payments and Receipts by Cash Transactions System

228. In this category of receipts and payments mechanisms, all such transactions are conducted (initially) in cash, and the following steps will be enacted:

1. Coal Purchaser places details of “Coal Purchase Request” with designated NCE Office or Official;
2. Designated NCE Office produces costed invoice for “Coal Purchase Request”, giving details of selected source of supply (NCE Operation or Contracted Supplier), together with monetary cost of “Coal Purchase Request”;
3. Coal Purchaser makes payment in full (in cash) to the designated NCE Office;
4. Designated NCE Office or Official issues Coal Purchase with “Receipt of Payment” as proof of payment;
5. Coal Purchaser goes to the selected source of supply (as given on the Costed Invoice) taking the – now receipted – Costed Invoice to that source;
6. Coal Purchaser surrenders the receipted Costed Invoice to the designated Source Supplier;
7. Source Supplier provides Coal Purchaser with quantity of coal stated on receipted Costed Invoice, retaining the receipted Costed Invoice.

Thereafter,

- a) Either, Sub-Contract Supplier takes collected, receipted Costed Invoices to NCE and receives due payment in cash;
- b) Or, NCE makes regular visits to Sub-Contracted Suppliers to physically transfer due cash payments (corresponding to combined Costed Invoice values).

Category 3 – Hybrid System: Combined Cash and Bank Transfer.

229. This category of receipts and payments broadly reflects many of the current practices employed for receipts and payments of “external” coal producers when used to satisfy coal sales requirements. The following stages are enacted:

1. Coal Purchaser places details of “Coal Purchase Request” with designated NCE Office or Official;

2. Designated NCE Office produces costed invoice for “Coal Purchase Request”, giving details of selected source of supply (NCE Operation or Sub-Contracted Supplier), together with monetary cost of “Coal Purchase Request”;
3. In a change to extant practice, in the case of a Sub-Contracted Supplier being specified as the “Source of Supply” the costed “Coal Purchase Request” will clearly state the price-per-tonne at which the coal sourced from the Sub-Contracted Supplier is sold;
4. Coal Purchaser contacts Bank, and makes payment in full (to the appropriate NCE bank account) for the monetary cost stated on the “Coal Purchase Request” in respect of the money due to NCE only. The money due to the specified Sub-Contracted Supplier is not paid at this stage;
5. Bank issues Coal Purchaser with “Receipt of Payment” for the monies received;
6. Coal Purchaser goes to the selected source of supply (as given on the Costed Invoice) taking the – now receipted – Costed Invoice to that source;
7. Coal Purchaser, in the event that specified Source Supplier is a Sub-Contracted Supplier and not an NCE controlled and operated mine, then surrenders the receipted Costed Invoice to the designated Source Supplier;
8. Source Supplier provides Coal Purchaser with quantity of coal stated on receipted Costed Invoice, retaining the receipted Costed Invoice;
9. The Coal Purchaser pays the Source Supplier (in the event that this is a Sub-Contracted Supplier to NCE) for the quantity of coal provided, at the price-per-tonne specified on the Costed Invoice;
10. Source Supplier submits receipted Costed Invoice to NCE as proof of invoice fulfilment.

6.7 Evaluation of Alternative Payments & Receipts Systems

Evaluation of Alternative Mechanisms - Overview

230. Each of the alternative mechanisms (as listed above), whereby monetary receipts for coal sales and the respective payments of Sub-Contracted Suppliers (for the appropriate coal supply) can be effected, have their individual merits and consequent disadvantages.

231. Ultimately, the selection of a preferred method is likely to be as much based on pragmatic considerations (i.e. “Can the particular mechanism actually be effected with a reasonable probability of success?”) as on any theoretical assessment of the respective merits or demerits of each method.

232. Therefore, the ultimate responsibility for the selection of a preferred mechanism will rest with NCE, making a choice on the basis of pragmatic factors.

233. Some observations and opinions regarding the respective advantages and risks of each of the proffered mechanisms are possible, and are noted in the following sub-sections.

Category 1 – Payments and Receipts by Bank Transfer

234. This is arguably the optimal mechanism (if pragmatic constraints permitted) as it is the most directly efficient, involving the least amount of human effort to operate, is the fastest, and is the least open to abuse and unauthorised activities.

235. This report notes, however, that access to such Inter-bank Transfers is not universally available in Afghanistan (especially in the more remote or rural areas in which most of the intended Sub-Contract Suppliers will be located) where internet access (or physical access to a bank branch) is problematic.

236. For this reason, while “Payment and Receipt by Bank Transfer” remains the ultimate goal of the proposed strategy, and while very effort should be made to encourage the use of such systems, it is accepted that it will be necessary to accept (and implement) an alternative, additional system for payments and receipts (additional to bank transfers).

Category 2 – Payments and Receipts by Cash Transactions

237. This category (“Payment and Receipts by Cash Transactions”) represents the most basic system for the conduct of such financial transaction. Practiced for millennia in countless societies and situation, cash-based systems offer the universal “fall-back” solution: Where all other systems either fail or are inappropriate, “cash” offers a workable alternative.

238. It is noted however that – while “cash” provides a universally accepted medium for the conduct of commercial transactions – it is not without significant disadvantages (especially in the modern-day business world). It is because of the disadvantages associated with cash transactions that modern commercial transactions have transferred – almost universally – to electronically based or bank transfer methods.

239. The disadvantages of using “cash” include:

- It is highly labour intensive;
- It is slow for the more complex and complicated transfers;
- It is extremely vulnerable to loss / theft / abuse;
- It provides no inherent “audit trail” for the verification of transactions.

240. Whilst cash has many failings, in the context of the Afghan commercial environment it cannot be completely discounted (due to its universal applicability). For this reason, cash will continue to be part of the financial transfer system until such time as electronic Bank Transfer systems become fully available and wholly reliable.

Category 3 – Hybrid System: Combined Cash and Bank Transfer

As a result of the pragmatic difficulties posed by any attempt to operate (at least in the short-term) a fully electronic Bank Transfer system (for both receipts and payments), it is recommended that a “hybrid” system be implemented.

241. With respect to coal sales: the Coal Purchaser will provide details of the required coal purchase with designated NCE Office or Official. That designated NCE Office will then produce an itemised and costed invoice (the “Coal Purchase Request”), giving details of selected source of supply (NCE Operation or Sub-Contracted Supplier), together with the monetary cost of that intended purchase.

242. The Coal Purchaser must then (either in person or electronically) make contact with the Bank, and make payment in full (to the appropriate NCE bank account) for the monetary cost stated on the “Coal Purchase Request” (in respect of the money due to NCE only).

243. In the event that the required coal is to be sourced from a Sub-Contracted Supplier, the money due to that specified Sub-Contracted Supplier is not paid into the Bank. The Coal Purchaser must obtain proof of payment for the monies that have been deposited.

244. The Coal Purchaser then goes to the selected source of supply (as given on the Costed Invoice) taking the Costed Invoice (together with proof of payment) to that source.

245. The Coal Purchaser, in the event that the specified Source Supplier is a Sub-Contracted Supplier and not an NCE controlled and operated mine, then surrenders the receipted Costed Invoice to the designated Source Supplier.

246. The Source Supplier provides the Coal Purchaser with quantity of coal stated on the Costed Invoice, retaining the receipted Costed Invoice.

247. The Coal Purchaser pays the Source Supplier in cash (in the event that this is a Sub-Contracted Supplier to NCE, who has elected to be paid in cash) for the quantity of coal provided, at the price-per-tonne specified on the Costed Invoice.

248. The Source Supplier must thereafter submit the retained Costed Invoice together with the respective proof of payment to the designated NCE office / official for subsequent reconciliation.

7 Legal Considerations

7.1 Introduction

249. To permit suitable improvements in NCE operations and to actively pursue the proposed strategy for reform, ***it is necessary that amendments are made to NCE's position within the legal environment controlling mining and state enterprises in Afghanistan.***

250. Although it may be ideal that multiple legal revisions are made, to the minerals' law, to the state enterprise law, to the labour code and others, it is ***not*** the aim of this Report (or this project) to revise laws, but to identify a pathway through which the proposed improvements to NCE operations can unfold.

251. The key strategic driver is to increase the productivity and the total amount of coal (tonnage) produced from authorised and legally mandated (through the mechanism of formal permitting and the issue of the appropriate "Limited Duration Permit to Occupy and Extract Coal") coal mining operations. It is understood that this will demand a period of time to fully implement and hence the identification of separate short-term and medium term strategic objectives.

252. This passage of time, or phases of reform, demand changes to the legal environment as there is no capacity (in all respects, institutionally, technically, financially) or benefit to the Government to radically restructure NCE through legal mandate into a private enterprise in one move.

253. The long-term goal of mining a suitable coal resource has many implications so as to alter, significantly, the profile of NCE as an organisation, such that only then will the necessary further legal amendments be clear, if and when, it is deemed appropriate to proceed with such a goal.

254. Thus the aim of this section of this strategy Report is to clarify those legal framework matters and amendments that will facilitate NCE operational improvements in the short-term. It is not the purpose of this Report to espouse new country-wide laws for safety, environment and operational management of mining even as it is clear that the mining sector would benefit from the same. Rather, the proposed strategy calls for formalisation, the empowering of NCE to assist (rather than legally enforce or regulate) miners, within NCE managed mines and formally permitted independent mines, to learn about and improve their own safety and mining methods for mutual benefits (safer environment, increasing productivity and increased earnings potential). Increasing awareness, and protection, of the environment also has far-reaching benefits to local communities and better environmental practices will most-likely add economic benefits and opportunities to local mining communities rather than detract therefrom.

255. As stated, the strategic aim, is to introduce such concepts in a pragmatic and mutually dependent way. In-so-doing, to allow all stakeholders to learn, to grow and to support developments (in safety, environment and operations) over time so that increased legal and regulatory controls of such elements can be effected at the time when capacity to manage and enforce those controls is both achievable and desirable.

7.2 A Pragmatic Approach to Reform

256. Acknowledging the limited capacity (collectively among the extant local mining communities, the regulatory authorities and within the legal, institutional and organisational frameworks of Afghanistan) to implement too many changes, of too regulatory a nature, too soon, the proposed strategy calls for an approach that is **pragmatic** rather than confrontational.

257. This is an approach aimed to educate and assist, rather than impose rules and rigidity in the early days of adoption.

258. It is an approach aimed at developing a positive change mentality through a process of collaboration, consultation and the demonstration of positive benefits so that a commitment to a safer, more environmentally friendly and more productive and efficient operating practices will ensue. The proposed approach is driven as much “bottom-up” (because workers and contractors see and demand the best-practices), as enforced “top-down” through an imposed regulatory regime.

259. Towards this end, imminent amendments to the legal framework fall into two main categories, being those aimed to:

- Empower NCE to engage in an effective supply-chain management role with IM's and to “require” of them relevant operating standards and mechanisms within such a supply-chain; and
- Enable NCE to build a more “commercially” sound operation through more astute commercially-aligned governance, financial and business operating processes and mechanisms.

260. Both of these categories require some amendment or alteration to existing “rules of engagement” and the following parts of this section of the Report, consider each aspect of proposed change and provide suggestions/recommendations of suitable, least-cost, practical amendments to the legal framework to empower and enable NCE.

261. Such empowerment and enablement aims to facilitate the other key elements of this strategy proposal – organisational, financial, governance, technical, Health & Safety, Marketing and environmental - and are as follows:

1. NCE to **re-shape its management** and organisational structure outside of conventional Government/SOE structures and outside of civil service rules and pay structures;
2. NCE to **retain profits**, contrary to existing Law on State Enterprise requirements, and instead to be mandated to submit a “Royalty Fee” for coal extracted from NCE controlled (managed and sub-contracted supply) mining operations;
3. NCE to **appoint a formal Board of Directors** with autonomous powers similar to a private corporation with particular emphasis in advancing and promoting a level of corporate governance of a commercial nature, including, but not limited to the rights

to determine financial priorities and commitments, outside of existing Law on State Enterprise requirements;

4. NCE to be **formally granted (or authorised with) the “Right to Mine”** in defined physical areas or mining regions, and that NCE be assigned the right, authority and approval necessary to allow NCE to sub-allocate such rights (by the issuing of Permits within specified and defined areas) to duly appointed IMC’s (who shall be therefore deemed “authorised Sub-Contracted Suppliers” to NCE) with the rights to revoke the same;
5. NCE to be **granted formal government “support”** for the right to retain and build an exploration fund and to develop and implement a coal exploration programme, inclusive of capacity building, acquisition of technical equipment and field testing aimed ultimately towards feasibility of a suitable coal resource of sufficient size and capacity suitable for medium to long term modern mechanised mining methods;
6. NCE to be formally an approved agent of MoMP cadastre in the supervision and implementation of **standards of safety and environment** in coal mining;
7. NCE be **empowered, in conjunction with MoMP**, to regulate the price of coal across the market so as to, in the short-term, satisfy social requirements and achieve increased price stability, and in the longer-term, develop an efficiently functioning market.

7.3 Re-shape Management and Organisational Structure

262. NCE will need to introduce a new organisational and management structure (as detailed in this Report). It will take time to fully transform from the current way of operating and organisational structure to complete the proposals in this Report, that themselves, aim to respond to the demands of the proposed strategy and to effect improvements in commercial management and operations.

263. NCE will need Government approval to step outside of the rigidity of organisational controls imposed by the Law on State Enterprises, the existing NCE charter and MoMP directives and the civil service code.

It is proposed that such approval be granted through amendments to the Commercialisation Decree in place that authorises current NCE operations and can be expanded to permit the proposed organisational changes.

264. It is better if detailed proposals are included in any Commercialisation Decree amendment, however some flexibility in relation to organisational structure and management must be retained (within the powers of the proposed NCE Board of Directors) to accomplish the strategic goals without the bureaucratic drain of repeated government interventions. In this regard the amendments to the Decree should provide for appropriate powers to organise, recruit, reward, train and dismiss employees and to engage in appropriate contractual relationships conducive to meeting the stipulated commercial objectives and goals of the enterprise.

265. In effect an expanded Commercialisation Decree will provide a range of supporting directives and controls for NCE outside of its obligations and modus operandi as governed by the Law on State Enterprises. Broadly this is a mechanism for excluding NCE from the Law on State Enterprises to enable the proposed reform strategy and commercial reforms to proceed.

What will happen?

NCE is to be granted exemption from some existing regulations and controls, thereby permitting NCE to increase its commercial outlook and independence of operation.

266. Obviously, if a decision to corporatise NCE is ultimately made, and is implemented early enough, the corporatisation procedures and associated legal changes will be sufficient to provide the structure of commercial outlook and independence that is desired.

267. However, there remain some obstacles to corporatisation and some uncertainties regarding direction of the coal mining sector that impede the attractiveness for external investment to NCE until many of the commercial reforms are underway.

It is the recommendation of this Report that Government proceeds with the commercial reforms proposed, with urgency, and without the delay's that will inevitably arise if corporatisation is pursued as a priority.

How can this change be implemented?

268. Ministerial support (from MoMP) is needed to seek amendments to the Commercial Decree for NCE to provide the support and mandate for the commercial reforms proposed including those related to the changes to personnel and organisational management. **Effort then needs to be directed to secure parliamentary ratification of such a Decree**, which is essential to underpin and support this proposed strategy for reform of NCE.

7.4 Retention of Profits

269. An essential element of the strategy holds that **NCE be formally authorised to retain earned profits. Consequentially, NCE will be required to commit some of such funds towards business development** (including improved, commercial business practices and systems and investment in capital assets and potential new sources of coal).

270. In respect of the above, it is accepted that the **NCE business entity will be required to remit a pre-agreed "Royalty" (or "License") fee to the Government for the coal resources extracted** and subsequently sold (whether that coal be extracted by NCE controlled and managed operations directly, or extracted by duly appointed "Sub-Contracted Suppliers").

Thus the legal framework amendments will call for:

- *NCE exemption from the existing requirement under the Law on State Enterprises to remit retained earnings (after provision for up to 25% for specific internal business needs); and*
- *The obligation for NCE to remit the "Royalty Fee".*

What will happen?

271. An amendment to the Minerals Law will require a royalty payable as a “per tonne” rate on all coal extracted. The fact that Government may (for several years) lack the resources to implement and impose this fee on all mining operators is understood. Nevertheless, NCE, as a state owned entity, will be law-abiding and will remit the fee in the manner detailed elsewhere in this report. Ultimately, Government will strengthen its resources and ability to capture such fees more widely in the mining sector. The key purpose is to ensure NCE remits the appropriate fees, in lieu, of monies no longer paid (to the State Treasury) as part of retained earnings.

How can this change be implemented?

A component of the Commercialisation Decree amendments will stipulate NCE's right to retain earnings. Imposition of a change to the Minerals Law depicting the Royalty Fee will be made and internal NCE policy, instigated at General Meeting, will determine a dividend policy for NCE. The combination of these changes will assist in internal commercially driven changes while protecting the State's need to receive income from its coal mining operations.

272. It may be that the Decree will require parliamentary ratification and, if Government so desire to establish a similar Royalty Fee for all coal mining activity and amend the Minerals Law accordingly, that too, will require a legislative re-draft and parliamentary approval.

7.5 Board of Directors

273. The role of the Board is clear under the CLLC law that will apply if, and when, NCE is corporatised. Until such a time existing legislation does not provide adequately for the role of executive management within NCE, at least in relation to the proposed reforms.

Thus, UNICON proposes that the role of the Board is established in a hybrid format, embracing the best of good governance practices, but mindful of the legal constraints and the extent of training and developments needed, over time, towards establishing effective governance practices.

274. Section 9 ‘Governance considerations’ details the proposed mechanisms aimed at establishing the role of the Board.

275. To put this into effect will require another amendment to the NCE Commercialisation decree.

276. To be clear, it is the role and functional accountabilities commonly associated with a Board of Directors that is important at this time. An alternative title, such as Board of Management or Executive Management Board/Committee could be considered if there are concerns with legal provisions in regard to the commonly and legislative use of the term Board of Directors.

What will happen?

277. ***It is proposed that a Board of Directors for NCE be formed, and the functions, powers and composition of such Board⁷ will be tabled.*** The aim will be to transition from the existing operating charter towards the autonomy enjoyed by the corporate governance bodies of major mining corporations internationally.

278. It is a transition and an arrangement directed specifically at NCE to facilitate the strategic changes proposed, to embrace the commercialisation outlook and to prepare NCE for the long-term goal of establishing (and ultimately exploiting) a resource of suitable size and structure for the introduction of modern mechanised mining methods.

How can this change be implemented?

279. The Commercialisation Decree can establish the guidelines for engagement, term, functions, obligations and powers of the Board and establish NCE rights to manage through the Board in the proposed manner and in similar manner to the way the decree currently operates.

7.6 NCE formally granted the ‘Right to Mine’

Introduction

280. Conceptually, the legal considerations either impacting on, or necessary for, the successful implementation of the proposed strategy (i.e. that NCE will be required to establish formal contractual relationships in the form of “Licenses/Permits to Supply” with a number of currently designated “Independent Mining Contractors” and engage these newly licensed mining operators as “authorised Sub-Contract Suppliers” to the NCE, thereby substantially increasing the number of “controlled” sources of coal production) are both extremely simple and few in number.

281. The actual development and enactment of these few, simple legal considerations is, however, made much more challenging by the political implications and vested interests that are likely to be affected by these proposed changes.

The most essential consideration or amendment is that the relevant legal ordinances and statutes must be modified in order to formally and specifically grant (or authorise) to NCE, itself, the “Right to Mine” in defined physical areas or mining regions – effectively giving NCE legal entitlement (or “title”) to mine and extract coal from specified and identified locations⁸.

Consequent to NCE being formally assigned the legally recognised right to extract coal from a specified area, NCE must also be legally and formally assigned the right, authority and approval necessary to permit NCE to sub-allocate such rights (or parts thereof) by the issuing of Permits (within specified and defined areas) to duly appointed IMC’s (who shall be thereafter deemed “Sub-Contracted Suppliers” to NCE).

⁷ Details are in Section 9 ‘Governance considerations’

⁸ Ideally these location definitions will include specific map coordinates and ensure that precise geographic and physical surface boundaries and underground definitions are suitable to promote undisputed mining activity

In addition to NCE being granted the legally recognised right to extract coal from specifically defined and designated areas together with the formally approved authority to “sub-allocate” such right to appointed “Sub-Contracted Suppliers” (of coal to the NCE), it will be necessary for the NCE business entity to “take charge” of its financial assets. Most importantly these financial assets must include the NCE bank current account and all retained earnings from the sale of coal.

Legal Framework (Sub-Contracted Suppliers of Coal to NCE)

282. It is envisaged that the legal framework to establish a network of “Sub-Contracted Suppliers” (of coal to NCE) would consist of two component elements:

1. The CONTRACT TO SUPPLY Agreement (Coal from a sub-contracted supplier to NCE);
2. The “PERMIT” (authorising the Sub-Contracted Supplier to occupy a specified site, and extract coal therefrom).

283. Presented herein is a “pro-forma” draft of the “**CONTRACT TO SUPPLY Agreement**” (Coal from a sub-contracted supplier to NCE) which, together with the corresponding “PERMIT” (Limited Duration Permit to Occupy and Extract Coal), forms an essential component of the Proposed Strategy for Reform and Restructure of Northern Coal Enterprise.

284. Details of the “Permit”, itself, are presented in Section 8.6

285. In addition to the presentation of the draft “pro-forma” agreement, also provided is a summary overview of the background to the requirement for such agreement, together with a concise explanation of the “formalised methodology” of which the agreement forms an essential part.

286. The “Agreement” effectively presents the fundamental duties and obligations of both Northern Coal Enterprise and the aspirant Sub-Contracted Supplier. The “Permit”, in contrast, evidences the entitlement (albeit for a limited period) of that Sub-Contracted Supplier to extract coal, from a defined place, for onward supply to NCE and its customers.

Background to Legal Framework (Licensed Suppliers of Coal)

287. The background and requirements for a viable, legally recognised, methodology under which hitherto “independent” coal producers will be systematically incorporated into the operation of NCE is elaborated hereafter.

288. Effectively, the methodology (which is an essential component of the proposed strategy for Reform & Restructure of NCE) seeks to convert “independent” operators into “controlled” sources of coal production (herein termed “Sub-Contracted Suppliers”).

289. The “controlled” sources placed under the jurisdiction of the reformed and restructured NCE will be the combination of those coal mining operations currently directly controlled and managed by NCE, and this newly proposed controlled source termed “Sub-Contracted Suppliers” (of coal to NCE).

290. This group of “Sub-Contracted Suppliers (of coal)” to NCE does not presently exist in any formally recognised way, though it is current practice within NCE to use (without any formal or contractual arrangements) a number of Independent Miners (“IM’s”) to satisfy coal sales requirements when supplies from NCE’s directly controlled and managed mining operations are unable to fulfil customer needs.

The proposed strategy for the Reform & Restructuring of Northern Coal Enterprise NCE requires the establishment of formal contractual relationships in the form of “Contract to Supply Agreements” and consequent “Permits (to Occupy and Extract Coal)” with a number of (currently designated) “Independent Miners” (IM’s) and engage these newly licensed mining operators as “Contracted Suppliers” to the NCE.

291. This “formalised methodology” will establish the mechanism whereby (former) IM’s can become Sub-Contracted Suppliers (of coal to NCE) and are then increasingly brought within the ‘control’ of NCE in a mutually beneficial manner.

The Formalised Methodology- The Principal Elements

292. The proposed “formalised methodology” is composed of two principal elements:

1. The “Contract to Supply Agreement”, also referred to in the context of the proposed strategy as the “Supply Agreement” (or, in brief, as the “Contract”);
2. The “Permit to Supply Coal”, more fully titled as the “Limited Duration Permit to Occupy and Extract (Coal)”, referred to, in brief, as the “Permit”.

293. The Contract to Supply Agreement together with the consequently issued Permit will formally, and in a legally recognised manner, award to the permitted Sub-Contracted Supplier, for the duration of the license period, entitlement to occupy, and extract coal from, a defined and designated physical area. Such Contract to Supply Agreement and associated Permit will specifically permit the Sub-Contracted Supplier to conduct mining (and directly associated activities) for the extraction of coal from that physical area bounded by, and within, the defined limits established in the Contract to Supply Agreement and Permit.

294. Key constituents of the required “formalised methodology” include the following:

- Awarding of legally binding permits (on conclusion of the relevant “Contract to Supply Agreement”) to selected IMs, and other suitable competent candidates, aspiring to become “sub-contracted suppliers” (of coal) to the NCE;
- Such permits will have a duration of two (2) years, renewable on expiry by mutual agreement, subject to adequate performance by the Licensed Supplier and satisfactory fulfilment of the license holder’s obligations and duties under the requirements of the Supply Agreement;
- The Contract to Supply Agreement together with the consequent Permit will formally, and in a legally recognised manner, award to the Sub-Contractor, for the duration of the permit period, entitlement to occupy, and extract coal from, a defined and designated physical area. Such Contract to Supply Agreement and associated

Permit will specifically authorise the permit-holder to conduct mining (and directly associated activities) for the extraction of coal from that physical area bounded by, and within, the defined limits established in the Contract to Supply Agreement and Permit;

- The aspirant Sub-Contractor will agree to sell all coal produced by themselves or by their agents or employees, only to NCE, via NCE, or to those purchasers referred to the Sub-Contractor by NCE;
- The aspirant Sub-Contractor will undertake to not sell or supply any coal produced by the Sub-Contractor, his employees or agents to any third party other than those specifically referred to in the Contract to Supply Agreement;
- Under the terms of the Contract to Supply Agreement, NCE will undertake to purchase all coal that the Sub-Contractor produces and makes available for sale;
- The aspirant Sub-Contractor will agree to permit and accept the inspections of, and visits to, the Sub-Contractor's mining operation(s) by Afghanistan Mines Inspectorate Personnel;
- The aspirant Sub-Contractor will agree to permit and accept the inspections of, and visits to, the licensee's mining operation(s) by Technical and Management staff of the NCE;
- Agreement by the Sub-Contractor to implement working practices that fulfil those basic safety and operating practices guidelines as defined or provided either by the NCE Technical and Management staff or by officers of Afghanistan Mines Inspectorate;
- Training and Technical Support to facilitate the safe and efficient operation of the Sub-Contractor's mining activities will be provided to the Sub-Contractor (and any persons engaged by the Sub-Contractor) by the Technical and Management Staff of the NCE;
- Financial support (in the form of material "Capital Assets" comprising essential plant, machinery and equipment) will be made available by NCE to the Sub-Contractor. Such plant, machinery and equipment will remain the property of NCE until such time as the Sub-Contractor effects purchase of those items from NCE;
- The Sub-Contractor will undertake to maintain in good and serviceable condition those items of plant, machinery and equipment made available to the Sub-Contractor, and to return said items to NCE at the completion of the permit period. NCE Technical and Management staff will be accorded the right by the Sub-Contractor to conduct regular inspections of the items made available to the Sub-Contractor in order to verify that such items are in use and benefitting from correct maintenance and upkeep;

- The Sub-Contractor will undertake, under penalty of immediate cancelation of Permit and forfeiture of all rights and benefits accrued therein, not to dispose of, or otherwise reallocate, reassign or convert any of the assets entrusted to him.

The “Contract to Supply Agreement”: A Pro-Forma Draft

295. The following is provided as a proposed draft for a “Contract to Supply Agreement” that satisfies the requirements established for the “Formalised Methodology”. After suitable review, editing and appropriate approval this document would form the basis of an agreement between the Northern Coal Enterprise and those former IM’s engaged as “Sub-Contracted Suppliers”.

“CONTRACT TO SUPPLY AGREEMENT”

This document represents a formal agreement, entered into voluntarily and without duress, force or coercion, between NORTHERN COAL ENTERPRISE (henceforth referred to as the “Recipient”) being a State Owned Enterprise of the Islamic Republic of Afghanistan, and __ __ __ (insert name here) __ __ __ __ (henceforth referred to as the “Supplier”), for the supply of coal, either directly or indirectly, from the Supplier to the Recipient (or the Recipient’s duly designated intermediary.

This Agreement is deemed as effective from __ __ __ __ (insert date here) __ __ __ __ of 20__ __ __ until __ __ __ __ (insert date here) __ __ __ __ of 20__ __ __ being an effective duration of two (2) years.

On signing and conclusion of the “Contract to Supply Agreement”, the Supplier will be issued by Northern Coal Enterprise with a formal permit (“Limited Duration Permit to Occupy and Extract Coal”) bearing entitlement for the Supplier to occupy, and extract coal from, a defined and designated physical area. Such Permit will specifically authorise the Supplier to conduct mining (and directly associated activities) for the extraction of coal from that physical area bounded by, and within, the defined limits established by the “Contract to Supply Agreement” and stated in the Permit.

The “Contract to Supply Agreement” is renewable on the date of expiry for further periods of two years subject to mutual agreement between both Recipient and Supplier, and on the satisfactory fulfilment (as adjudged by the Recipient, or the Recipient’s correctly appointed agent) by the Supplier of the obligations and duties imposed under the Agreement. The Recipient may not unreasonably withhold such agreement for renewal.

The Permit will have a limited duration of two (2) years effective from the date of issue of that Permit. The Permit will be renewable on the date of expiry for further periods of two years subject to mutual agreement between both Recipient and Supplier, and on the satisfactory fulfilment (as adjudged by the Recipient, or the Recipient’s correctly appointed agent) by the Supplier of the obligations and duties imposed under the Agreement. The Recipient may not unreasonably withhold such agreement for renewal.

The price of sale between the Supplier and the Recipient will be __ __ (insert agreed price here) __ __ Afghanis per metric tonne of clean coal.

The price of sale will be agreed between the Supplier and the Recipient prior to the signing of the Agreement, and will thereafter have force for the duration of the Agreement (subject only to adjustment by mutual agreement of both parties to the “Contract to Supply Agreement”).

The Recipient agrees to –

Purchase all clean coal that the Supplier produces and makes available for sale.

Provide to the permitted Supplier (and any persons engaged by that Supplier) training and technical support to facilitate the safe and efficient operation of the permitted Supplier’s mining activities.

Provide financial support (in the form of material “Capital Assets” comprising essential plant, machinery and equipment) to the Supplier. Such plant, machinery and equipment will remain the property of NCE until such time as the Supplier effects purchase of those items from NCE.

The duly permitted, Sub-Contracted Supplier agrees to -

- 1. Make available to the Recipient not less than 6000 (six thousand) metric tonnes of clean coal (that is coal free of waste rock, soil, vegetation and all other materials) per annum unless the Recipient formally authorises the supply of a lesser quantity;*
- 2. Sell all coal produced by themselves or by their agents or employees, only to NCE, via NCE, or to those purchasers referred to the Contractor by NCE;*
- 3. Not sell or supply any coal produced by the Sub-Contracted Supplier, his employees or agents to any third party other than those specifically referred to in this Agreement;*
- 4. Regularly (at intervals not exceeding one calendar month) notify the Recipient of the quantities of clean coal that the Supplier;*
- 5. Has immediately available at the time of notification;*
- 6. Will make available during the month subsequent to the time of notification;*
- 7. Permit, accept and facilitate the inspections of, and visits to, the Sub-Contracted Supplier’s mining operation(s) by Afghanistan Mines Inspectorate Personnel;*
- 8. Permit, accept and facilitate the inspections of, and visits to, the Sub-Contracted Supplier’s mining operation(s) by Technical and Management staff of the NCE;*
- 9. Implement working practices that fulfil those basic safety and operating practices guidelines as defined or provided either by the NCE Technical and Management staff or by officers of Afghanistan Mines Inspectorate;*
- 10. Maintain in good and serviceable condition those items of plant, machinery and equipment made available to the Supplier by the Recipient, and to return said items to NCE at the completion of the license period. NCE Technical and Management staff will be accorded the right by the Supplier to conduct regular inspections of the items made available in order to verify that such items are in use and benefitting from correct maintenance and upkeep;*
- 11. Be fully responsible for the purchase, supply and use of all consumable materials required for the correct operation of the capital assets entrusted to the Sub-Contracted Supplier;*
- 12. Not to dispose of - under penalty of immediate cancelation of Permit and forfeiture of all rights and benefits accrued therein, - or otherwise reallocate, reassign or convert any of the assets entrusted to the Supplier.*

Signatures of Acceptance

Confirming willingness to be bound by the conditions of the “Agreement to Supply”:

a) For Northern Coal Enterprise, being the Recipient

----- Date:

b) For , ----- (insert name here) ----- being the Supplier

----- Date:

The “PERMIT”

296. This section concentrates on the second key element of the formalised methodology required for the establishment of a network of Sub-Contracted Suppliers (of coal to NCE), namely the “PERMIT”. (The first element – the “Contract to Supply Agreement”, on which the issue of the “Permit” is dependant – was elaborated in above section of this report).

297. Specifically detailed in the Permit, itself, are the following elements:

- The name of the Permit Holder (or parties to that individual Permit);
- The location and extent of the physical area to which the Permit applies. (Normally being a horizontal radius of 100metres from a given central point, but may be enlarged at the discretion of NCE under exceptional circumstances);
- The dates of validity of the Permit;
- Indicative details of the material elements that are permitted to be installed or constructed on the site to which the Permit applies;
- Limitations of activities on the designated site;
- Environmental protection duties;
- Site rehabilitation duties at expiry of Permit.

The “Permit”: A Proposed Draft

298. The following is provided as a proposed draft of an appropriate “Permit” that satisfies the requirements established for the “Formalised Methodology”. After suitable review, editing and appropriate approval this document could be issued to those (former) IM’s who have accepted the proposed “Contract to Supply Agreement” and are to be engaged as “Sub-Contracted Suppliers”.

“LIMITED DURATION PERMIT TO OCCUPY AND EXTRACT COAL”

This document is a formal PERMIT issued by NORTHERN COAL ENTERPRISE, being a State Owned Enterprise of the Islamic Republic of Afghanistan, to the following parties:

1. Name:
2. Name:
3. Name:

This formal PERMIT entitles the above named parties (or their employees, or duly appointed agents) to occupy and extract coal from the area extending horizontally a distance of one hundred (100) metres from the specified central point as given below.

The specified Central Point being°.....” (degrees / minutes) of longitude and being°.....” (Degrees / minutes) of latitude (insert as appropriate).

Such PERMIT being subject to the following conditions and restrictions:

The PERMIT will be deemed as effective from ____ (insert date here) ____ of 20__ until ____ (insert date here) ____ of 20__ being an effective duration of two (2) years.

The PERMIT HOLDER (including their employees and duly appointed agents) will be authorised to:

- *Extract coal from within the designated permitted area;*
- *Temporarily, but not permanently, remove soil, rock and other materials from portions of the permitted area in order to facilitate the extraction of coal from that area;*
- *Conduct such associated activities as are reasonably necessary to support the extraction of coal from the designated permitted area;*
- *Construct, erect or install such temporary facilities, buildings and shelters (including roads, hard-standings, offices, workshops, stores, rest-rooms and sanitary facilities) as are reasonably necessary to support the extraction of coal from the designated permitted area;*
- *Create or otherwise build temporary stockpiles of extracted coal, provided that such stockpiles must be constructed in such manner as prevents any environmental contamination;*
- *Temporarily, but not permanently, occupy the designated site for the sole and express purpose of extracting coal from that site and the necessary supporting activities of that purpose.*

The PERMIT HOLDER (including their employees and duly appointed agents) will be expressly prohibited from:

- *The construction, within the designated permitted area, of any building or structure for the permanent habitation or residence of any person;*
- *Conducting any activity that may, with reasonable foresight, be considered as a source of pollution of the environment;*
- *Performing any commercial activity other than those specifically and directly required to facilitate the exploitation of coal from the permitted site.*

The PERMIT HOLDER is formally required to effect the following:

- *Institute working procedures and methodologies having full regard to the safety and well-being of all persons engaged therein;*
- *Provision of sufficient, appropriate safety and first-aid equipment for the protection and use of all persons engaged therein;*
- *Dispose of all waste materials emanating from the site (or the activities conducted thereon) in an approved and non-polluting manner;*
- *Establish and operate suitable measures for the capture and containment of foul or polluted waters originating from the site or the operations thereon;*
- *Ensure that all materials or minerals (including coal) are transported from, or on, the site in a manner that will not result in pollution of the environment;*
- *At the termination of the permit period, to restore the site, and any workings thereon, to a condition approved by the Inspectorate of Mines;*
- *To remove from the site all structures and buildings constructed during the duration of the license period;*
- *To allow and accept the inspections of, and visits to, the Permit Holder's mining operation(s) by Afghanistan Mines Inspectorate Personnel;*
- *To permit and accept the inspections of, and visits to, the Permit Holder's mining operation(s) by Technical and Management staff of the NCE;*
- *Agreement to implement working practices that fulfil those basic safety and operating practices guidelines as defined or provided either by the NCE Technical and Management staff or by officers of Afghanistan Mines Inspectorate;*
- *To undertake to maintain in good and serviceable condition those items of plant, machinery and equipment made available to the Permit Holder, and to return said items to NCE at the completion of the permit period;*

- *To purchase and provide all necessary consumable materials required for the safe and effective operation of the capital assets made available to the Permit Holder;*
- *NCE Technical and Management staff will be accorded the right to conduct regular inspections of the items made available to the Permit Holder in order to verify that such items are in use and benefitting from correct maintenance and upkeep;*
- *To agree, under penalty of immediate cancelation of Permit and forfeiture of all rights and benefits accrued therein, not to dispose of, or otherwise reallocate, reassign or convert any of the assets entrusted to him.*

Signatures in respect of Permit Acceptance

Confirming willingness to be bound by the conditions of the Permit:

- a) For Northern Coal Enterprise, being the Issuer of the Permit*

----- Date:

- b) For, _____ (insert name here) _____ being the Permit Holder*

----- Date:

What will happen?

299. MoMP will need to approve the proposed draft agreement and permit. The MoMP Legal Directorate can then propose relevant amendments to Articles 16 – 19 of the Minerals Law to both:

- Empower NCE with the right to mine in its designated mining areas; and
- Enable NCE to sub-contract such rights through the mechanism of the proposed agreements and permits.

300. It is useful to note, that in this context, doubts or uncertainties about NCE's legal status are removed and NCE is affirmed as a separate legal entity, if not a separate corporate entity.

How can this change be implemented?

301. A legislative amendment to the Minerals Law is needed to ensure that NCE has the right to mine and is enabled to sub-contract such rights to mine.

302. With urgency upon approval of this Report and its proposals, effort should be directed towards preparing the brief but necessary legislative amendments and seeking parliamentary ratification.

7.7 Support for the 'Right' to retain and build an Exploration Fund

303. As indicated in this Report, the capacity to identify and explore for further coal resources (and specifically for a resource of suitable size and structure conducive to modern mining methods) is both fundamental to the proposed strategy for improvement of the business environment at NCE and essential to the development of the coal sector in Afghanistan.

304. While some capacity exists within the MoMP and the AGS, overall this capacity, as evident from the records and information available, is very limited. Such limitations cover scope, program funding, geological know-how, environmental considerations, feasibility and exploration program management skills and mining methodologies, among other elements.

305. It is the proposal of this report to build such capacity, as is necessary to establish an effective exploration and evaluation function, through a structured program of training, acquisition of equipment, field-work and fund development⁹.

306. Essential to this proposal is the financial ability to support the program and the strategy holds that NCE should allocate a portion of retained earnings to a reserve fund specifically for Exploration. These funds can be drawn-down to support the training and capacity building in the formative years and it is anticipated (based on the budget assumptions associated with the productivity gains) that after about 5 years a sizable fund suitable to commence a significant exploration program could be achieved.

⁹ Details of the Fund are provided in section 10.7 and details of the department can be found in section 13.

What will happen?

307. Once approval for NCE to retain earnings has been given then it is a matter of NCE internal policy to allocate funds to reserve accounts. However, Government remains the owner of the business and such important policies should be the recommendation of the Board, but seek approval in General Meeting. In this respect it will require the Government (ownership) Minister(s) to approve the proportion of retained earnings that is allocated annually to the Exploration Fund¹⁰.

308. Also it is proposed that the General Meeting authorise the annual business plans and budget as proposed by the Board. This should identify the spending plan for the Exploration Fund to cover initial training and capacity building.

How can this change be implemented?

309. ***The Board will propose a proportion of retained earnings to be allocated to the Exploration Fund reserve and an allocation will be made each year.*** The Government (ownership) Minister(s) should approve the same and a separate bank account should be maintained with detailed records and formal authorisations for all draw-downs in accordance with approved business plans.

7.8 NCE as a formally approved agent of MoMP

310. In conjunction with the above amendments to the existing legal framework, it is appropriate (and therefore recommended) that ***MoMP formally recognise NCE as an authorised agent***¹¹. In practice such recognition may make little difference, however, the agreement and proposed permitting of approved sub-contractors will require NCE officers to visit independent operations to further understand their scale and potential and to check on the use of (NCE owned) assets and the safety of operations. Matters of safety, mining operations and environment will be of mutual interest to NCE and the ministry and it will add credibility to NCE visits and MoMP inspections and assist both NCE and the ministry, if NCE is formally recognised. Although no additional objectives are necessary in the formative years, official recognition of NCE as an agent of the ministry may enhance future opportunities to develop regulatory control with independent mining businesses.

311. Essentially, such formal recognition of NCE can be mandated by MoMP policy irrespective of any specific clause in the mining law. Provided MoMP indicates, through policy and relevant commentary/action that the ministry recognises the role of NCE as an agent, it will suffice in the formative years.

¹⁰ The concept of the General Meeting and ownership/shareholding Minister(s) are relevant if and when NCE is corporatised. In the meantime, the proposal to instigate a Board of Directors will enable NCE commercial reforms to evolve similarly to a corporatised or commercial entity. In this regard, it is proposed that the Board develops and approves a Business Plan and Budget and that, on behalf of the owners, akin to a shareholders Annual General Meeting, the nominated Minister(s) approve the allocation to the Exploration Fund.

¹¹ As indicated in the earlier sections, NCE should be affirmed as a separate legal entity and as such can be recognised as an agent of MoMP, being one who is authorised to act for another by contract or apparent authority.

7.9 Strategic Management of the Price of Coal

312. In section 16.4 comments are made to justify the strategy requirements for Coal pricing. Pricing impacts significantly on the financial issues and cash flows through NCE and to the government. However, pricing is principally a component of the marketing mix and in a mature market prices should be pitched to balance the supply / demand criterion. In Afghanistan, coal is mostly a commodity, in an immature, poorly regulated market with only a portion of consumers in the formal sector, many consumers in the informal sector and limited knowledge about production, distribution and demand.

It is proposed, therefore, with respect to the declared “formal coal price”, that the Commercialisation Decree that currently stipulates such formal coal price, via NCE purchase of Afs 2,100 per ton, be systematically revised (in both a socially and politically acceptable manner) to reflect the current inequalities in the market¹², and that this be formalised via revision to the Commercialisation Decree.

7.10 Legal Considerations Appropriate to Restructure as a Corporate Entity

313. The proposed strategy in support of the reform of NCE as detailed in this Report does not, as a necessity, demand the corporatisation of NCE as a pre-requisite. Indeed, the Report argues that, in the short term there is no purpose or particular benefit to early corporatisation of NCE.

314. Rather, the proposed strategy calls for the commercially oriented reforms as detailed in this Report to strengthen and improve business methods and operations and work towards the identification of a coal resource of suitable size and geology conducive to modern mechanised mining. At that time (identification of such a coal resource and a positive feasibility study for the exploration of the same) there may well be a benefit to proceed with formal corporatisation and, indeed, possible partial privatisation of NCE.

315. Nonetheless it is acknowledged that reform of state enterprises generally, and corporatisation particularly, has been considered within various ministries in Afghanistan in recent years, and also within MoMP. Suffice to say that much of the analysis and assessment work under this project and as detailed in multiple project Reports¹³ will serve well to inform the necessary committees/legal officers responsible for any corporatisation should a decision to that end, eventually be made.

316. Appendix 2 provides a summary of the corporatisation process and relevant comments in that regard.

7.11 Conclusion to Legal Considerations

317. The proposed strategy for reform of NCE requires some amendments to the legal framework to:

¹² These matters are detailed in section 16 of this Report

¹³ As detailed in Appendix 1

- Empower NCE to engage effectively with Sub-Contracted Suppliers; and to
- Enable NCE to build a more “commercially” focused business operation.

318. Such empowerment and enablement aims to facilitate the supporting elements of this strategic proposal and through the mechanisms of selective manageable amendments to the Commercialisation Decree and moderate revisions to enabling laws as indicated above, NCE can:

- **Re-shape its management and organisational structure;**
- **Retain profits** and instead submit a “Royalty Fee” for coal extracted from NCE controlled (managed and sub-contracted supply) mining operations;
- Appoint a formal **Board of Directors;**
- Issue a **formal License to grant NCE the “Right to Mine;**
- Authorisation/Mandate for **“support” for the right to retain and build an exploration fund;**
- Be a **formally approved agent of MoMP** cadastre in the supervision and implementation of standards of safety and environment in coal mining;
- Ensure **coal price adjustments** are legislated as necessary.

8 Corporate Governance

8.1 Introduction

319. Under the terms of reference for this project UNICON has submitted a number of deliverables relating to improvements in the Corporate Governance of NCE. However, as indicated by name, they mostly reflect a position that is mandated if, and when, NCE is corporatised into a separate legal corporation.

320. These deliverables include:

- Northern Coal Enterprise Board Requirements and Guidelines;
- Constitution (Articles for Incorporation) for Northern Coal Enterprise;
- Bylaws for Northern Coal Enterprise;
- Board Reports to conduct the first Board of Directors' Meeting.

321. While the principles of good governance can and should be followed by all commercially minded organisations, currently the Afghanistan Law on State Enterprises restricts the capacity for any SOE to adopt widely recognised best governance practices.

While this can be overcome through the corporatisation process, UNICON's recommendation is that a suite of commercial reforms be introduced gradually during the next 5 years and that actual formal "Corporatisation" – which will undoubtedly be a substantial economic / business change, and a significant political challenge – be deferred until some of the proposed commercial improvements are implemented and bearing positive results.

To this end it is proposed that NCE, with MoMP support, introduce some key principles of good governance during these formative years and thereafter further changes may be introduced depending on proposals for the timing of corporatisation and/or the results of exploration and market developments.

322. This proposal recognises that not all good governance practices can be adopted, and neither should they all be introduced, simultaneously. It is understood that such significant change is challenging and takes time and that there are many hurdles and practical considerations to first be accommodated.

Therefore, there are three key governance principles to be proposed and that are core to the overall strategy. The three key principles are:

- *Introducing the role of the Board of Directors and non-executive director expertise;*
- *Introducing a thorough process of business planning and reporting; and*
- *Introducing full independent financial audits.*

8.2 Role of the Board of Directors

323. Corporate governance encompasses the arrangements by which the power of those in control of the strategy and direction of an entity is both delegated and limited to enhance prospects for the entity's long-term success, taking into account risk and the environment in which it is operating.

324. A good governance framework should guide the actions of individuals by providing clarity of direction as to appropriate behaviour and decision-making. When working well, a governance framework produces better outcomes simply because it exists. The Board of Directors of an organisation oversees the work of the executive management and takes overriding responsibility for good governance. The requirements of the Board of Directors, its operations and rules of procedure are critical to good governance and thus organisational success.

A transition for NCE

325. This proposal holds that NCE will benefit, as an SOE, from the engagement of an active Board of Directors¹⁴ to take overall responsibility for executive management, implementation of the business plan and risk management and implementation and oversight of this strategic change to commercialisation. ***Such a Board needs to be empowered through a suitable mandate and needs relevant skills and experience to succeed.***

326. ***The proposal holds that, at the earliest opportunity, a decision is made to engage a Board in a hybrid form*** (between the current existence of the Board of Management operating under NCE charter and the Law on State Enterprises; and the full mandate for a Board of Directors as evident in corporations law and international codes of conduct).

327. Such a hybrid-form aims to introduce many of the guidelines and governance practices that will be key to NCE success, while recognising the time necessary to acquire the personal and institutional competencies to impact radically to improve governance outcomes.

328. In practical terms, this means to activate a Board, to engage as suitable and qualified members as possible and to commence the series of duties and responsibilities. It is accepted that the government (through MoMP) will still retain a formal oversight role but increasing greater interactions and communications should be between the Minister and the Board Chair and increasingly less day-to-day operational communications, authorisations and oversight.

329. The 'how-to' details are evident in the aforementioned deliverables.

Recruitment and Training

330. ***Prospective Board members need to be identified through a basic vetting process.*** Often a 'pool' of prospective candidates for SOE Boards is maintained within the SOE monitoring or oversight agency and when a Board vacancy is pending then a recruitment process is instigating through nomination of suitable candidates from the pool.

¹⁴ As indicated earlier, an alternative name may be better suited since a non-incorporated concern has no existing legal instrument governing such a function

Afghanistan needs to consider taking such steps and in regard to NCE will need to identify candidates with business and commercial experience as well as those with engineering, technical and mining know-how.

It is important that NCE quickly transition away from reliance on public sector officers fulfilling the role of Director. Non-executive directors should be engaged as quickly as suitable candidates can be identified.

331. UNICON understands that one or two Director positions will likely be allocating to ministry personnel in the initial strategy implementation and if suitable executive recruitment is undertaken, an experienced Chief Executive and/or Chief Financial Executive may also be nominated to the Board in the early years. Ultimately, however, it is this Report recommendation that emphasis is placed on engagement of non-executives to better add the objectivity, range of experience and breadth of skills that will be needed to drive the strategy and deliver effective governance in the process.

332. Once selected a suitable induction process and ongoing training will be important features for the role of the Board as well as management and employees.

Role of the Chair

333. Good boards are created by good chairpersons. The chairperson creates the conditions for overall board effectiveness and success.

334. The chairperson should demonstrate the highest standards of integrity and probity, and set clear expectations concerning the company's culture, values, and behaviours as well as the style and tone of board discussions.

335. The chairperson's role includes the following key responsibilities:

- Demonstration of ethical leadership;
- Setting a board agenda focused on strategy, performance, value creation and accountability. The agenda should ensure that issues relevant to these areas are reserved for board decision;
- Ensuring a timely flow of high-quality and useful supporting information to board members and executive management;
- Assuring the board determines the nature and extent of the significant risks the company is willing to embrace in the implementation of its strategy;
- Regularly considering succession planning and the composition of the board;
- Making certain that the board has effective decision-making processes and applies sufficient challenge to major proposals;
- Ensuring the board's committees are properly structured with appropriate guidance;

- Encouraging all board members to engage in board and committee meetings by drawing on their skills, experience, and knowledge and, where appropriate, independence;
- Fostering relationships founded on mutual respect and open communication – both in and outside the boardroom;
- Developing productive working relationships with all directors and the CEO (chief executive officer) in particular;
- Taking the lead on issues of director development, including training new directors and regular reviews with all directors;
- Acting on the results of board evaluations;
- Being aware of, and responding to, his or her development needs, including people and other skills, especially when taking on the role for the first time; and
- Ensuring effective communication with all shareholders and other stakeholders with the board.

336. The chairperson of the board has to be more than just a nominal leader. A good chairperson needs to perform many functions.

337. The many functions that a good chairperson needs to perform include serving as an effective team builder, a motivator, a diplomat and a conflict solver. In addition, the chairperson of a state-owned enterprise (like NCE) is required to reconcile the needs and opinions of the government, SOE executives, and the board,. They must retain the trust of all parties and keep political pressures away from proceedings of the board.

338. The chairperson is also a key contact point for the CEO if and when significant matters arise in the day-to-day operations of the business, and the Chair is the focal point for the CEO reporting to the Board, through the Chair. Effective relations with the CEO helps in achieving an appropriate balance of power, increasing accountability and improving the board's capacity for decision-making independent of management.

339. The CEO supports the chairperson to make certain that appropriate standards of governance permeate through all parts of the organisation and that management views and analysis of relevant issues are expressed at board level.

340. The Chair should lead board discussion and evaluation of issues and proposals and any executives presenting to the board will appreciate that constructive challenge from directors is an essential aspect of good governance and a part of the broad responsibility of the board.

For all of the above reasons, it is necessary that a respected, qualified and suitable Chairperson is appointed to lead the Board.

Recommended Rules of Procedure

341. As indicated, the Board of Directors of a commercialised NCE should have the requisite skills to fulfil key functions and be accountable for its actions and those of NCE. To accomplish this it is useful to stipulate specific operating protocols and procedures.

342. Obviously it is most beneficial if a high level of compliance of such protocols and procedures is achieved early in the reforms of NCE. However, it is understood that full compliance will take time and is an evolving process.

Part A: Individual Accountability

343. Upon election each Board member must submit full details of:

- Full name (and any past names), address, passport details, qualification certificates, resume and experience, Other past and present Board positions;
- Any shareholdings, family ownerships and other interests in businesses or formal organisations;
- Declaration of any interests within the hydrocarbons sector, within government, or any known or perceived conflicts of interest.

344. Such member must sign an affidavit of commitment to be available for Board meetings and to discharge legal and fiduciary responsibilities of the role to the best of his/her ability, noting the obligations regarding the use of non-public and confidential information, the use of corporate assets and leveraging of business opportunities.

345. Further, such member should be required to sign an affidavit of competence to act and that qualifications, experience and declaration of conflicts statements direct or indirect, temporary or permanent, and to related parties are true and fair.

Part B: Governance

- The Board will be comprised of six voting members with the option for the Chairperson to co-opt additional non-voting members on an ad hoc basis to bring necessary skills and expertise to the decision making process as needed;
- Each nominated member will have one vote on any decision with the majority vote ruling, except in the event of a tie, the chairman's vote will settle decisions;
- A quorum for attendance and authority of the Board will require a minimum of five members present and entitled to vote;
- The Board shall meet regularly once a month and in addition for an extraordinary meeting at the request of four or more members and the authorisation of the Chairperson or his/her deputy;
- Meetings shall occur at the offices of NCE or any place as it may specify, on the date and time that it determines and extraordinarily convened by itself. The convening of meetings, both ordinary and extraordinary, shall be made by notice

delivered or filed with each of the members in advance of not less than seven (7) calendar days; such communication may be sent by any suitable means such as fax or email;

- Minutes of each meeting of the Board shall be maintained and shall be signed by the Chairperson or the deputy, at the following meeting after any corrections are made the a resolution to accept the minutes is passed;
- Board members, not being employees of the enterprise, do not receive any salary or similar payment, but receive an allowance to be fixed by Resolution.¹⁵

Part C: Specific Tasks of the Board

Strategy and Reporting

- Develop and approve NCE strategy, business plans and policies on all strategic technical, economic, financial, environmental and social issues and operations;
- Approve and monitor the progress of major capital expenditure (the threshold¹⁶ to be established by policy), capital management and financing initiatives including any business acquisitions and divestments;
- Approve the annual report and financial statements (including the directors' report and statement) and any other published reporting, upon the recommendation of the Audit committee;
- Monitor performance period-to-period in relation to strategic plans and financial budgets and to ensure the integrity of policies and systems.

Risk and compliance

- Review, approve and monitor the risk management and internal control systems;
- Approve and monitor corporate governance systems, formation of Board committees and their effectiveness;
- Appointment, re-appointment and or removal of the external auditors, approve auditors' remuneration, upon recommendation of the audit committee and approval of the General meeting;
- Recommend extraordinary investment in emergencies and extraordinary situations that may arise, and seek ministerial authorisation;

¹⁵ This applies to non-executive directors ONLY. If public sector employees and NCE executives are engaged as Board members, they will not receive additional compensation and their role will be deemed as a part of their public service/employee duties. Any specific expenses incurred may be reimbursable but no fees or sitting fees will be payable other than to non-executive (non-public sector directors)

¹⁶ A recommended threshold initially is US\$100,000 or Afs equivalent

- Promote and propose amendments to NCE governing policies;
- Manage the performance of the Board and ensure participation in annual self-assessment of Board performance.

Executive Personnel

- Appoint and remove the CEO (after authorisation from the Minister) and, in consultation with the CEO, appoint and remove the executive team of management;
- Approve overall remuneration policy, non-executive director remuneration (in consultation with MoF and MoMP), upon recommendation from the remuneration committee.¹⁷

Stakeholder communications

- Oversee management of NCE interactions with Government, MoMP and other stakeholders and the broader community;
- Monitoring the timeliness and effectiveness of information provided to government, and other stakeholders;
- The Board Chairman shall publish regularly reports on the functioning of the Board, in which the attendance at meetings of the Board and its Committees shall be noted.

8.3 Business Planning and Reporting

346. In the formative years, one of the most effective forms of governance to be established is to formalise the concept of credibility in management plans and results. Currently, NCE is weak at its planning role and the ministry lacks the institutional capacity to monitor plans and reports and to effectively supervise the performance of NCE.

347. Once an established and credible process of planning and reporting against the plan is in place then performance monitoring and management is easier for the Board, the executives, the ministry and other stakeholders.

348. Such a process requires the creation of a plan: Effectively, a clear statement of 'This is what we are going to do', and then, later, a comprehensive review or report of conclusion, generally incorporated in the Annual Report. Effectively, a clear statement of 'This is what we did'.

349. Critical to these two documents (the Plan, at the commencement of a fiscal year; and the Annual Report, at the conclusion of the fiscal year) is a common thread so that accompanying the Annual Report is an assessment of performance 'How well did we do? Did we achieve our Plan?'

350. Towards this end, the business plan should be a thorough and comprehensive document to explain the market and environmental assessment that impacts on NCE capacity, its internal

¹⁷ A level of market-based commercial remuneration will be required to attract suitably qualified executives

resources and strengths and thus to clearly articulate key objectives, strategic actions to accomplish those objectives and specific performance targets and measures to enable determination of such achievement.

351. The business plan should include a set of financial budgets in similar format to the annual reporting formats to facilitate comparison and evaluation.

352. An effective business plan for NCE will be one that demonstrates recognition of the institutional and resource constraints, while striving for capacity development and productivity improvements. It will detail year-by-year and multi-year targets and development initiatives with clearly defined measures.

353. The Annual Report will include detailed financial reporting and a series of accompanying details that explain actions, achievements and operational conditions during the relevant fiscal year. Most importantly will be a section, signed by the Chief Executive and Chairperson of the Board, which specifically reconciles performance (actual results and key indicator measures) against the business plan and budget expectations. This reconciliation will need to have three components:

- The actual indicator/measure/result comparison against plan;
- An explanation for major variances (including large positive variances) to indicate why different outcomes to the plan were achieved; and
- Due comment of proposed actions/inputs to the next business plan arising from the differences expected demonstrating appropriate adjustments and lessons from the performance assessment.

354. Details and examples of how these documents can be constructed are evident in the project deliverable ‘3-year business plan for NCE’.

8.4 Independent Financial Audits

It is proposed that, as an integral part of the “reform” process that is undertaken, NCE should address current deficiencies in financial reporting as soon as possible.

355. It is acknowledged that the transition to full compliance with international financial reporting standards will take both time and also the acquisition of new skills and systems. However, it is important that there is evidence of a transition and reasonable attempts to increase the quantity and quality of financial information prepared and reported as soon as practical¹⁸.

356. Once there is evidence of “sufficiency of effort” in meeting reasonable financial statement preparation and disclosure then it is appropriate for NCE to engage an independent audit firm, with requisite qualifications (possibly from India or a Middle East country if there is a lack of firms with the ability to audit to international standards based in Afghanistan) to conduct an independent financial audit. While there is a probability that NCE will have qualified audit reports in the

¹⁸ Details of expectations regarding the transition to IFRS are documented in the project deliverable ‘Proposal for divisional shares and Reporting Requirements’;

formative years, the audit process will provide input to the learning and transition activity at NCE for the accumulation of improved skills and systems to eventually meet relevant standards.

357. The independent audit should therefore be seen as an important component of good governance, a necessary input to the evolution and learning at NCE and as a check on conduct, compliance and credibility of the results achieved.

8.5 Conclusion on Corporate Governance

358. Improvement to and development of the many elements of corporate governance can only serve to assist NCE in its business outcomes and results.

359. It is understood that such governance improvements take time and, to an extent, emerge together with business process improvements and in many cases cannot develop in isolation.

360. While it is understood there are many components to the suite of corporate governance initiatives and there are models and guidelines recommending appropriate practices for SOEs¹⁹, the specific proposals in this Report recommend a focus in the short-term (Years 1 – 5) on the need for:

- Introduction of a commercially-oriented and autonomous Board of Directors;
- Development of effective mechanisms for proper Business Planning and Reporting; and
- Introduction of an Independent Financial Audit.

361. Efforts in these three areas will strengthen internal controls and disciplines and provide a solid platform for further improvements to governance as operations and business processes develop and more modern management, IT and communications systems and methods become more entrenched in the organisation.

¹⁹ IFC, UN and other agencies have developed Governance Manuals

9 Financial Management

9.1 Introduction

362. The overall proposals for reform and restructure of NCE and the strategy and strategic direction recommended by UNICON, have, as key components, important financial management considerations.

363. However, in recognising the many issues technically and culturally that MoMP and NCE has to contend with, the proposed strategy does not identify financial management reforms as fundamental to business improvement; moreover, it advocates such reforms to assist as supporting mechanisms for the key strategic driver – namely, the improvement and increase in productivity, production and financial return - and such proposed financial management reforms are consistent with an overall aim to enhance capacity and shift towards greater commercialisation of NCE operations and the potential for corporatisation at a chosen future date.

364. Indeed, at the pragmatic level, the nature of changes that will ultimately be required for NCE to shift to best practice financial management standards and practices will take some years to implement regardless of anything else, due to the lack of in-house capacity and the required training and resources to be allocated.

UNICON therefore proposes that financial management reform should develop steadily in time and in support of more fundamental changes to operations that are being proposed.

So these financial management proposals fall into three broad categories:

- *Specific changes deemed necessary to underpin the desire and motivation towards the short-term strategic driver to substantially increasing productivity, via more efficient and safer mining practices, and funding the relevant costs of this from internally generated funds;*
- *Creation of an 'Exploration Fund' to support the capability and the long-term aim of identifying and developing a suitable coal resource for scale economies and mechanised mining practices; and*
- *Overall capacity and systems improvements in financial management practices that support both the above intentions and contribute to the progressive improvement of NCE, its shift towards more commercial practices and provide a suitable platform for corporatisation, when the time is deemed appropriate.*

365. Changes consistent with point 1) above are priorities as part of the overall short-term strategy for change.

366. Point 2) should be commenced as soon as possible as funds will be required for initial capacity building, research and geological studies prior to any formal exploration field work and lead times are long, such that it is desirable, that steps to initiate the NCE Exploration division are commenced as early as possible.

367. Changes consistent with point 3) above support both the short-term proposals recommended for improvement to NCE business operations and the long-term shift towards greater commercialisation and eventual corporatisation. These are a function of capacity, evolution over time and incremental improvements.

9.2 Financial Management Proposals

368. The key financial management proposals to support the short-term strategic driver to substantially increase productivity are:

- **NCE to retain earnings** exempt from (or by decree, excused from) the requirements of the SOE Law;
- NCE to remit funds to central treasury through the **introduction of a Royalty Fee** on Coal production and a dividend on profits (at amounts expected to equal and ultimately exceed current equivalent remittances in accordance with the SOE Law);
- **Provision for interim (2 - 3 years) advance remittances** to assist in Government cash flow, but this practice to be phased out and eliminated; and
- **NCE to make financial management decisions** (investments in assets, safety and other initiatives) based on an approved business plan and via Board and management authority rather than ministerial approval.

369. The key financial management proposals to support the Creation of an 'Exploration Fund' are:

- **NCE to establish as a separate account a 'Coal Exploration Fund'** with an allocation (as a reserve and in accordance with an agreed formula) with annual remittances to boost the fund capacity, and
- To expend fund balances towards identification of a large and suitable coal resource for modern, mechanised mining in accordance with a detailed plan for building capacity in geological resource identification, exploration techniques and management and eventually in accordance with a plan for field exploration work and identification of a suitable resource.

370. The key financial management proposals to support overall capacity and systems improvements in financial management practices are:

- **Introduction of, and increased use of IT and IT systems** to record transactions and prepare financial statements;
- Implementation of **more detailed and accurate budget preparation and planning**;
- Focus on capacity building towards **convergence to international accounting standards** and financial management practices;

- Development of **more effective asset management practices** including liquidity and working capital systems, Inventory, credit and debt management practices and management, and to include the management of title and valuation of fixed property and assets; and
- A structured approach to financial management and accounting practices, incorporating **commercial, best-practice policies and procedures**.

9.3 NCE to retain earnings

A key component of the proposed strategy requires NCE to fund improvements in mining operations and safety both within NCE managed mines and to support sub-contracted IM's.²⁰

371. A level of autonomy (subject to good governance and formal approvals) over spending is therefore essential for NCE to operate sensibly and efficiently. Fundamentally this necessitates NCE to retain earnings from its coal mining operations.

372. This change will also satisfy the requirement to improve NCE business processes towards commercialisation and by extension will move in the right direction to assist NCE in preparation for corporatisation, if this is desirable at some future date.

373. It is well understood that there are wide implications to this proposal:

- Political;
- Government need for NCE contribution to national budget revenue;
- Capacity of NCE to manage such funds;
- NCE need to re-invest in its business assets, systems and processes and to financially support the operational efficiencies and safety proposals.

In essence this proposal is to exclude NCE from the requirements of the SOE Law (regarding remittance of after tax earnings).

What will happen?

374. NCE will be exempt from remittance of after-tax profits and will use those funds generated – in part - in the business to better equip its mining operations for improved safety and productivity through:

²⁰ A component of the strategy known as 'Formalisation' relates to the supply relationship *between NCE and selected, formerly, "Independent" coal miners (effectively converting those "Independent" coal miners into "SUB-CONTRACTED SUPPLIERS" to NCE.*

- Acquisition of some basic pneumatic, mechanised and power hand-tools and equipment for winning coal;
- Instigation of ventilation systems, safer tunnel support structures, acquisition of personal protective equipment, more efficient mechanisms for moving and transporting extracted (won) coal etc.

375. Specific details of what expenditures are required, in what amounts and how they will be executed is included in section 12 of this Report and is estimated in detail in the deliverable '2-year budget for NCE' and the supporting financial model.

How can this change be implemented?

It is proposed that a special decree or an amendment to the commercialisation decree²¹ be drafted and enacted to enable NCE to be exempt from remittance to Treasury of after-tax profits (while simultaneously proposing to create structures, being a Royalty Fee and Dividend Policy) to compensate for such remittances to Treasury.

9.4 Introduction of a Royalty Fee

The proposal is that, in lieu of remittance of after tax (and after deduction of 25% for reserve allocation) profits, NCE will be levied (and will remit) a "Coal Royalty Fee" based on the tonnage of Coal resources extracted.

376. **NCE will also develop a formal dividend policy** and so regularly pay a dividend on profits to compensate Government as owners of the business, and to reward the Government as increased productivity eventuates.

377. It is anticipated the Coal Royalty Fee will be established as a fixed amount per ton of coal extracted / produced within NCE mined operations. This is consistent with the Afghanistan Constitution article 3 that stipulates resources in the ground belong to the State and it is reasonable and appropriate that a fee should be charged for use of such resources.

378. Initially it is estimated that the fee should be \$15 (Afs900) per ton, however this should be subject to regular review and amendment to ensure that the value being received by Government is consistent with overall policy and requirements.

379. In addition to the 'Coal Royalty Fee' it is proposed that a dividend policy will provide an alternative to after-tax remittance of earnings and will provide for remittance of dividends to reflect the cash flow capacity of NCE and will be based on a percentage of after-tax annual profit.

380. The Board of Directors should establish the dividend policy, solicit MoMP approval and determine, in consultation with MoMP and Treasury, how to declare and remit such dividends. A twice-yearly (per fiscal year) remittance is recommended such that the first payment can be

²¹ It is understood that a Government decree titled as the 'Commercialisation decree' for NCE was approved in 1386 and identified specific reforms to NCE operations. It is understood this decree is regularly reviewed and extended and thus it is proposed that a similar instrument may facilitate the change in the manner of remitting funds to central treasury.

known as an interim dividend based on 6-monthly financial statements and the final dividend declared following completion of the audit of the annual financial statements.

381. While it is desirable that NCE have control of funds to effectively manage legitimate business expenditures, there is no desire for an accumulation of cash other than what is required for legitimate business needs. Therefore it is anticipated the dividend policy will be quite high, estimated at 20%.

382. ***The combined Coal Royalty Fee and the Dividend Payment is designed to equate to the equivalent value currently achieved through the remittance of after-tax profits.***

What will happen?

383. ***NCE will keep satisfactory records of tonnages produced from each mining operation and recorded through the weighbridges with full reconciliations between each set of documented records.***

384. Each month a Form/Return will be submitted to the Treasury, detailing the specific tonnages produced and recorded and the value of the Coal Royalty Fee payable.

385. NCE will remit the value on a monthly or quarterly remittance as preferred by MoMP/Treasury.

386. Each year, after completion and submission of the Audited Financial Statements the final dividend value will be declared and due for remittance within one month and within six months of the end of the financial year. An interim dividend can be declared and paid at a six-monthly interval (assuming this is desirable to the owners – Treasury) and the final dividend payable will be adjusted to reflect the interim dividend paid.

How can this change be implemented?

387. ***An amendment to the commercialisation decree is required to put in effect the requirement of a Coal Royalty Fee*** to be stipulated on the quantity of Coal extracted. It may be that the Decree will require parliamentary ratification and, if Government so desire to establish a similar Royalty Fee for all coal mining activity and amend the Minerals Law accordingly, that too, will require a legislative re-draft and parliamentary approval.

A Board of Directors / NCE Management Committee policy decision is needed, with approval from MoMP and Treasury of the Dividend Policy to be declared.

9.5 Provision for interim (2-3 years) advance remittances

388. Currently NCE obligations in relation to its tax liability and its after-tax profit remittance, is satisfied through advance payments made at the request of Treasury. These advances are prior to declaration of annual profits and calculation of income tax and after-tax profits.

389. NCE carries the value of such advances as a receivable in its balance sheet and due to the multiple years of such practice and the inability until recent years of NCE to reconcile such balances and prepare a formal balance sheet, there remains a 'disputed value' in bought-forward balances. However, generally the values in recent years reflect correct calculations based on

reported values of earnings, reserve retentions, obligations (tax and after-tax profits) and balances.

390. A component of the unusual circumstance of this practice of advance remittances is that amounts remitted are later 'allocated' against calculated tax due and after-tax profit remittances due.

391. This current practice of advance payments is long established and understood, but is not mandated under any legislation.

The proposal is to change this practice to a system of introducing a Coal Royalty Fee and declaration of dividends that will supersede the system of payment of after-tax profits (NCE to retain earnings).

In recognition of the requirements of Treasury (for emergency cash funds) it is proposed that advances (against the Coal Royalty Fee and the dividends) can be made to assist Treasury for an interim period, with a clear understanding to phase-out this practice and to ensure that all values are formally agreed and beyond dispute at all times.

392. ***Regular remittance of the Coal Royalty Fee and the Dividend Payments will substitute for the need for advance remittances to Treasury.***

What will happen?

393. Amounts will be remitted in advance, as is current practice, at the request of Treasury and with the approval of NCE and MoMP.

394. Reconciliations will be done promptly and such advance remittances will be allocated at the time, firstly against the monthly Coal Royalty Fee obligations as they are declared and accrue on a monthly basis and secondly against any interim dividend that is declared.

395. Formal confirmations of amounts remitted, allocations against NCE obligations (Coal Royalty Fee obligations and dividends payable) and balances due or payable by/to NCE will be signed by NCE and Treasury following each and every remittance.

After a short time period (maximum 2 – 3 years) of continuation of this practice, it is anticipated that NCE will cease advance payments but instead will remit the Coal Royalty Fee regularly (monthly or quarterly) and pay an interim and final dividend each six-months and that these formal remittances will compensate and remove the need for the advance remittance system currently practiced.

How can this change be implemented?

396. ***These proposals (to temporarily assist Treasury with advance remittances) only require the consent and agreement between Treasury, MoMP and NCE to implement.*** There is no legal mandate for the current practice of advance payments therefore the proposed changes could be implemented through the mechanism of a concise written memorandum between the three respective parties.

9.6 NCE to make financial management decisions

397. Capacity building will be directed towards skills in business planning in order to coordinate and reconcile proposed strategies relating to:

- Improved productivity;
- Improved Safety;
- More efficient mining methodologies; and
- Better financial management planning.

Essentially this means that a reformed NCE will prepare and submit for approval (to MoMP) a commercial business plan on an annual basis – such annual commercial business plan including details of proposed expenditures towards the above initiatives together with a capital expenditure plan.

398. The business plan, above, will identify key objectives, strategies and performance measures in each of the above areas and appropriate time-scales for achievement, allocation of resources and funding. One element of reform in each functional area (mining methods, safety management and financial management) aims to build internal capacity and some time, effort and funding will be directed towards specific training and capacity building activity.

399. Where initiatives in safety and mining methodologies are identified both for NCE managed mine operations and for Sub-Contracted Suppliers (former IM's) relevant costs on an annual basis will be determined and included in the business plan for approval. Spending authority and spending limits will be devised for NCE management and will only be permitted within the scope, scale and amounts as per the approved business plan and annual budget limits.

400. One component of this will refer to the proposed agreement(s) between NCE and the IM's to implement specified safety and productivity initiatives, with NCE agreement to provide financial support for the same. Such financial support to those IM's electing to become Sub-Contracted Suppliers to NCE is considered a necessary feature of the overall strategic direction and the costs of such support must be included in the business plan for approval (prior to expenditure). Such costs may be subject to regular review and negotiation with each IM at the time of attempts to formalise arrangements (via legal contract).

401. UNICON has prepared a draft business plan and detailed financial budget/model to assist NCE in implementing these initiatives.

402. In preparing the business plan and budget, in seeking MoMP approval for the budget, and ultimately in negotiating with IM's (within the limits of the approved budget), the issue of support to IM's who elect to become Sub-Contracted Suppliers to NCE must be guaranteed. If loans (to the Sub-Contracted Suppliers) can be successfully negotiated and managed, or if gifts of equipment and tools are required and this is deemed to be commercially in the best interests of achieving the overall strategy, then this is acceptable. Provided, of course, that the appropriate costs are identified and approved and can be demonstrated to provide overall added value to NCE, coal production and to the reform outcomes.

403. Once the business plan and budget is approved, NCE will be able to manage its own financial affairs and make financial management decisions within the boundaries and constraints as detailed in approved financial management procedures and in the detailed annual business plan (and budget and as approved by MoMP).

404. ***The detailed business plan will be a key management tool for communicating financial resource allocations in an effective manner conducive to NCE becoming more commercial and supporting the reform strategy.***

What will happen?

405. ***At least two months in advance of each fiscal year, NCE will submit a thorough business plan and budget for the ensuing year.*** In practice there are many methods of business planning and a common approach is to prepare a 3 – 5 year revolving plan, such that the overall objectives and strategies are articulated for a medium-term outlook with specific actions and performance measures detailed for the following financial year.

406. Then at the next anniversary, the plan is updated to reflect new information, new directions and objectives and to focus on the detailed actions and performance measures for the following year and to adjust and consider the implications of any shortfall in actions and targets for the year just finishing.

407. It is acknowledged that NCE will require training and capacity building on the preparation of such a business plan.

408. The plan will include a detailed budget with supporting documentation to justify proposed expenditures on operational improvements, new initiatives and efficiencies and proposed capital expenditures and the budget will include balance sheet and cash flow statements to indicate how the expenditures can be made and the sources of funding.

409. The plan and accompanying budget will provide the key tool for expenditure approval and subsequent monitoring by the Board / Management committee of NCE and by MoMP²².

How can this change be implemented?

410. ***These proposals only require a policy directive from MoMP*** and, of course, the time, effort and finances to implement the necessary training and capacity building. There are many financial management courses and various business process and business planning courses available from proven training providers who offer excellent materials and training. These providers are available within the region, in the Middle East and from Europe and other countries.

²² See following sections 11 and 12 that provide commentary on the draft business plan and budgets prepared under this reform project.

9.7 NCE to establish as a separate account a ‘Coal Exploration Fund’

411. A key component of the proposed strategy holds that the management of NCE must be charged with the conduct of an appropriate Exploration Programme. Such a programme will have, as its objective, the location, delineation and confirmation of coal resources amenable to future exploitation by more modern mining methodologies than those currently practised.

412. For such an objective to be realised, it will be essential that the management of NCE be:

- Allocated the financial resources necessary for the defined programme of exploration; and
- Supported with the requisite skills and training both to implement and manage the said programme.

413. With regard to the financial resources NCE will need to allocate a proportion of after-tax profits to the “Coal Exploration Fund” and to utilise such funds towards the development and expansion (i.e. to identify a suitably large coal resource for mechanised mining) opportunity.

414. An indicative programme including how such financial resources may be utilised is included in Appendix 3. The issue here is financial capacity and it is proposed that the fund is created through the allocation of after-tax profits, prior to dividend declaration.

415. The long-term aim is to identify a suitable coal resource and capacity in exploration know-how. The financial resources to support this must come from NCE earnings and must be properly allocated towards such an aim.

What will happen?

NCE will create a special purpose bank account (nominated for the Coal Exploration Fund) that is permitted under SOE Law and can be achieved with approval of MoMP.

416. NCE will make nominal transfers up to US\$1m to support an initial fund and during the first year of implementation and such transfers to be deducted from the first formal reserve allocation. This is simply to initiate the fund and provide some working capital so that the Exploration department can be established with a financial resource to commence some training in the first year of strategy implementation and prior to the first formal year of accounting and allocation to the fund.

417. After the first fiscal year of implementation the allocation will be based on an agreed formula, estimated at 20% of after-tax profits. The fund will remain on NCE balance sheet and under NCE direct control, but again the exploration activity and fund expenditure will be subject to detailed planning (and budgeting) and prior approvals of the Board/Management committee and MoMP.

418. The financial model indicates the fund will grow year-on-year, depending on the feasibility, commitment and aggressiveness of the Exploration training program and the skills and capacity to spend in the formative years.

419. After 5 – 7 years it is anticipated the fund will be large enough to support a programme of sophisticated fieldwork aimed at identifying a suitable coal resource and, in addition, it will have created a significant “in-house” (within NCE) capacity relevant to coal exploration.

How can this change be implemented?

An amendment to the commercialisation decree is required to establish the fund as a reserve. A policy decision is then required for NCE management to take the necessary action to establish the bank account.

420. A sub-component of the NCE business plan and budget will relate to the Exploration Department activity and will necessitate full forecasting for fund expenditure. Equally detailed financial records will be maintained for the actual drawdowns and expenditures in line with the approved budget.

9.8 Introduction to increased use of IT and IT systems

421. To support the strategies identified, NCE needs to incorporate more sophisticated financial management systems into its operations. It is acknowledged this will take time and should be seen to complement the core strategy rather than to be a driver of such strategy.

422. Training and capacity building is needed to underpin such introduction, as current capacity is weak. While financial management systems and process changes should be much more than merely IT systems, it also follows that substantial improvements without incorporating suitable IT systems is sub-optimal and a poor use of time and resources.

Thus it is recommended that in the initial time periods NCE increase their capacity and use of ad hoc IT systems for communications and information storage and exchange, before building capacity to a level conducive to the introduction of a fully integrated IFMIS based system.

423. These changes support the proposed strategy for reform of NCE and are endorsed by the existing draft NCE Charter objectives 3(v):

424. To promote the financial viability and overall good governance of the company through the use of:

- Digitalised financial and accounting affairs for easy access;
- Computerised database of customers, contractors, coal sales and other information;
- Inventory of equipment;
- Equipment and inventory of produced coal control system;
- Management information system;
- Implementation of annual external audit.

425. Section 17 details specific proposals to develop IT systems.

It is recommended that there is an initial increase in the use of basic IT tools, including M/S Office software for reporting, which can be the catalyst for progress towards a full IFMIS system.

What will happen?

426. ***NCE need to allocate personnel for suitable IT training, increase access to IT systems through the acquisition of software and hardware, and to generally adopt IT based systems for internal communications and financial information & record-keeping and financial reporting.*** Ultimately this will lead to greater sophistication in systems as local capacity increases towards a fully integrated system.

How can this change be implemented?

427. ***Relevant costs for the proposed IT development need to be allocated within the business plan and budget process.*** Once approved it is internal NCE policy and management decisions that will drive implementation and capacity building.

9.9 Convergence to international accounting standards

428. International Financial Reporting Standards (IFRS) are now adopted in over 100 countries worldwide and are the definitive standards for financial reporting. They have evolved from International Accounting Standards (IAS) and promote the concepts of fair value accounting. The standards are demanding in terms of information, compliance and disclosure and NCE will require significant training and systems development before there will be any capacity for adoption of such standards. ***It is recommended that a program of suitable training and systems development be developed and commenced as soon as practicable.***

429. The important point is that a move towards adoption of IFRS, (i.e. a convergence and all that is involved in regard to better systems, better record keeping, better and fuller disclosure in reporting etc.) contributes to improved financial and business controls and outcomes and a more commercial focus for NCE.

430. The above-mentioned draft NCE Charter has additional stated objectives:

- Article 3(vi):
 - To develop options for commercial restructuring company operations to be more economically efficient.
- Article 8(vii):
 - To organise and implement NCE operations in a fiscally responsible manner that will ensure financial viability of NCE including the use of international standards of accounting, procurement systems, control and inventory of goods, good corporate governance, and independently audit of financial accounts each year by an internationally recognised accounting firm, where necessary,

- Article 22:
 - As of the adoption of this Charter, where possible NCE will commence the use of international accounting standards (IAS).
- Article 33:
 - NCE will have its annual report and financial statements, profit and loss, and balance sheet audited by an independent auditor that is not part of Government, every year.

431. Guidelines and templates to support effective financial reporting and converge towards IFRS standards are provided in the UNICON deliverable 'Proposal for Corporate Shares and Reporting' submitted in October 2015.

The process or 'journey' towards introduction of IFRS should only commence after initial reforms and systems improvements, including IFMIS have progressed. Once started convergence towards IFRS compliance will facilitate further systems and business process improvements and add value through driving a higher standard of governance and accountability.

What will happen?

432. ***NCE finance department should develop a program of training and capacity building for key personnel to attend programs and study towards understanding the requirements of IFRS*** and in a step-by-step fashion the Head of Department should be responsible for introducing the necessary record keeping and systems that will permit compliance with IFRS standards within a targeted time period, say 5 years from inception.

433. A commitment towards such standards will help drive the commercial reforms and systems developments that are needed, including the appointment of independent auditors, who will eventually be required to audit the financial statements as prepared in accordance with IFRS.

434. The need for independent auditing is paramount and ***it is recommended that a reputable international firm be engaged to undertake the annual financial supervision for coal exploration fund of NCE***. Rigour in the annual audit and improvement to accounting and financial management practices to satisfy audit requirements all work hand-in-hand towards learning, knowledge sharing and enhancing capacity towards international standards.

How can this change be implemented?

435. NCE Board and management decisions are required, with the approval of MoMP, to initiate the appointment of a reputable international audit firm and to ***allocate resources towards capacity building in financial management, systems and process improvements and IFRS standards***.

9.10 More effective asset management practices

436. NCE fixed assets fall into four primary categories:

- Coal Mines;
- Property (buildings and land);
- Equipment and Machinery – each mine maintains its own inventory and requirements and provides headquarters with an annual list of depreciation for assets; and
- Roads - Some roads are included in the NCE asset list; they are generally mine access roads.

437. There are legal difficulties surrounding title to some assets, especially the actual mines and some of the neighbouring land. It is understood that land adjacent to some mine operations is forestry land, where the timber can be cut and used to support mine buildings and mine tunnels. Local residents and businesses occupy other land and have done so for some decades.

438. Recently some mining properties and land has been leased to Metallurgical Corporation of China and Afghanistan Investment Corporation in support of major mineral development projects. These leases appear to be contractual relationships between the Government and the contracted mining operators but have not been accounted for formally through NCE.

Subject to confirmation that the leases meet the standard accounting definitions of finance leases then the assets should be excluded from NCE balance sheet while the lease is in force.

439. Nevertheless, asset or property ownership is not critical to, or a pre-requisite of, execution of the UNICON proposed strategy. Since title to these mining properties is unclear, such properties can be valued as part of the NCE business and thus be valuable NCE assets OR title could remain with the Government, provided NCE has the license to mine the properties, for a reasonable time period.

440. Either option (formalising title and ownership to NCE or retaining ownership within Government and providing formal licenses to NCE) is viable, **but a decision (in regard to ownership of property and assets) is required so that proper accounting (within NCE, the Government or another entity as owner) entries can be completed.** Rents or lease fees should then feature as a commercial charge/cost between the occupier and the owner. This can be considered satisfied through the proposed Coal Royalty Fee for the land housing the mines and mine tunnels. Rents for other land use and building use should reflect commercial values.

441. Ultimately, issues of land/property title are about a formal decision based on evidence of entitlement in accordance with land rights laws. If such claims are not in evidence or are not forthcoming after due notice (in accordance with the law) then it is about formalising the decision and issuing legal title. This should be accompanied by appropriate details of the respective lands (block size, coordinates, boundaries etc.).

Other NCE assets include inventories and receivables. The introduction of suitable management practices governing the issuing of credit, the maintenance of inventories and stores of coal etc. including the management of obligations and payables is required as a part of overall capacity building and strengthening of financial management processes.

Title and formal reconciliation of fixed assets, the issuing of good governance practices to control liquid assets and liabilities are all required and should be introduced commensurate with the institutional strengthening, training and capacity to implement and manage effectively.

What will happen?

442. ***MoMP should issue instructions for land titles to be verified or issued as necessary.*** In support of this an appropriate surveying of the land may be required to ensure that title can be specified correctly. Formal title can then be authorised, issued and registered and a qualified valuer can determine an appropriate land/property value for accounting purposes.

443. In addition commensurate with training and improved financial management capacity, ***new procedures to govern the management of other assets and liabilities should be introduced.***

How can this change be implemented?

A decision will need to be taken relating to title to properties and then a suitable commercial value, of such properties, should be determined. Following endorsement by parliament of such a decision, the legal documentation should be prepared and the accounting transactions completed.

444. This will be a prerequisite for any prospective corporatisation.

445. ***The Board of Directors and NCE management should issue a plan and instructions to implement suitable capacity building and asset management improvements.***

9.11 Commercial best-practice policies and procedures

446. The scope for training and up-grading of the skills within the accounting and financial management department is significant and resources must be allocated to satisfy this need. It is understood that training in the broad areas of commercial business management and financial management is available locally and via some donor supported programs aiming to provide core training within the broad energy industry.

447. Once a suitable level of understanding and capacity is achieved a task for the Head of department is the development of commercial, best practice policies and procedures. These will most likely be a work-in-progress over several years as tighter controls, better systems and IT systems permit and facilitate improved practices and the improvement of internal controls.

448. ***NCE currently operates on a 'cash-adjusted' method of accounting and will need to move towards full accrual accounting.*** Expenditure control and Commitment Control procedures, pertaining to the management of the initial incurrence of obligations, rather than the

subsequent cash payments, in order to enforce budget constraints, authorisation levels and expenditure ceilings will need to feature strongly in new accounting procedures.

449. Common practice is to draft a formal Financial Policies and Procedures Manual and use this as the basis of controls, to govern workflows, direct staff and demonstrate accountability. Such policies and procedures once completed and authorised should be regularly reviewed and updated.

450. Once an adequate system of commercial internal controls is established the process of internal audit should follow. The internal audit work focus is on compliance with the stated controls and processes and is an essential component of risk mitigation and accountability in an effective governance framework.

451. Introduction of an IFMIS accounting system accompanied by a strengthening of policies, procedures, and internal controls will add depth and robustness to financial reporting.

452. Such reforms will take time and should be structured to evolve in harmony with the overall proposed reform strategy and in a manner compatible with staff and institutional capacity to learn and apply.

453. Another feature of commercial best practice is formal performance measures, through the identification of business and financial targets and the use of trends, ratios and absolute values to monitor performance. Such targets should be identified in the formal business plans at the commencement of a fiscal period and should be reconciled and reviewed at the end of the period with an explanation as to achievement, accountability and appropriate reasons and corrective actions for any underachievement.

454. As a commercial (and eventually a corporate) entity NCE should appreciate the capacity to offer assets as collateral (to support repayment obligations) and borrow for commercially viable projects and investments. Effective use of alternate funding sources, including debt should eventually feature as a component of NCE operating under commercial best practices and policies.

NCE is to implement a programme of financial management training and to introduce effective internal controls, policies and procedures in accordance with good governance and commercial best practices.

What will happen?

455. The Head of the department of Financial Management needs to implement the above changes. In accordance with the business plan and budget approval he/she needs to oversee a programme of financial management capacity building including:

- Appropriate personnel to be thoroughly trained in commercial accounting practices;
- Acquisition of hardware and software to facilitate improved systems and internal controls;
- Development of appropriate commercial policies and procedures conforming in good governance practices and leading towards conformity with IFRS; and

- Implementing effective budget and internal reporting processes to increase financial controls, accountability and information sharing.

456. This programme will be multi-year and needs to commence with initial training and learning as soon as possible.

How can this change be implemented?

457. Ultimately the Board of Directors is responsible to oversee the implementation of such changes. ***With support from MoMP, the Board will instruct the CEO and Head of Financial Management to arrange capacity building and to propose a timetable for step-by-step improvements.***

458. The business plans and budgets should identify improvement targets and resource requirements to implement proposed changes.

Board decisions are also required (with the approval of MoMP) to initiate the appointment of a reputable international audit firm.

9.12 Coal Pricing

459. This Strategic Proposal holds that extensive consideration needs to be given (by the empowered stakeholders) to all aspects of product pricing (coal sales price), purchase pricing (coal purchases) and contract prices (coal suppliers).

460. Partly it can be asserted that pricing is a marketing function. It is considered here briefly due to the impact of proposed price adjustments on the overall financial capacity of a reformed NCE.

461. Revenues are a function of price and volume and the fixed price mechanism appears to provide very well for NCE. Usually commodity pricing is an issue of market factors, although there were no formal market mechanisms under the Soviet regime that influenced the current Afghan systems.

462. Existing data on coal demand and supply is not comprehensively available, but is sufficient to indicate that aggregate demand exceeds aggregate supply from official and authorised sources. As a result, many independent (and unofficial coal miners/suppliers) are able to charge significantly higher than the official price of Afs 2,100 per tonne when supplying coal to a purchaser.

463. This strategic proposal holds that revenues can (and will) increase in the short-term period through volume increases (more coal produced and sold into the market), and assumes (by logical inference) that the demand (for such officially sanctioned production of coal) will rise accordingly. In regard to price increases, a key concern is the impact on pricing through the supply chain and the potential to increase the price of a basic commodity fuel for poor consumers.

464. In conjunction with market considerations it is asserted that price increases (above the official Afs 2,100) will be proposed and will, in combination with increased volumes, contribute to

a growth in NCE revenue during the short-term and medium-term implementation of the strategy²³.

9.13 Tools and Guidelines for Effective Financial Management

465. In response to the Project Terms of Reference and as requested, UNICON has prepared and submitted a suite of ‘deliverables/documents/tools and guidelines’ related to the analysis of NCE operations, the prospects for reform and most importantly, the proposals for reform.

466. Collectively these outputs form the suite of assessment and analysis of options and strategies for NCE and include detailed analysis of financial management matters.

467. Key documents and deliverables, relating to the proposals and thus a ‘set of tools and guidelines’ of a Financial Management nature that have been prepared and submitted in support of this proposed new business strategy are as follows:

- Draft Terms of Reference for independent audit contract;
- Proposed financial structure of NCE;
- Reconciliation of NCE balance sheet;
- Workshop/seminar – Financial Management;
- Establish new Chart of Accounts;
- Proposal for division of corporate shares, reporting requirements;
- Prepare a Debt Recovery plan and Debt Payment plan;
- Two (2) year budget for NCE operations.

468. Each document/deliverable provides important guidelines and ‘user friendly’ tools to assist in implementing the proposed financial management reforms and in support of an eventual transition towards commercial practices and eventual corporatisation, if that decision is ultimately taken.

469. Findings and specific recommendations within each document/deliverable are not necessarily repeated in this report. Particular attention is drawn to recommendations regarding balance sheet adjustments that will assist in creating a more robust financial structure and better platform for NCE to progress to manage the business in a more commercial manner.

470. As indicated relevant costs associated with the proposed strategy for reform should primarily be sourced from NCE earnings from coal sales. Costs related to changes to personnel and other people related costs and any costs associated with assets transfer and corporate restructure should likewise be funded from NCE earnings.

²³ Further comments in section 16.4

471. As indicated, in support of the proposed strategy and as a foundation for the deliverable '2 year budget for NCE operations' UNICON has prepared a simple financial model to test assumptions, correlate projections and possibilities and assess the potential financial capacity and returns, over the short-term.

472. This model then allows the relaxation and variation of key assumptions to present different financial propositions and it is intended that after some basic training MoMP and NCE personnel will find the model another useful planning tool.

9.14 Conclusion to Proposed Strategy for Financial Management Reforms

473. Proposed financial management reforms fall into three broad categories.

1. Proposals to support the short-term strategic driver to substantially increase productivity are:
 - **NCE to retain earnings** - In essence this proposal is to exclude NCE from the requirements of the SOE Law (regarding remittance of after tax earnings);
 - **Introduction of a Royalty Fee** on Coal production and a dividend on profits - The combined Coal Royalty Fee and the Dividend Payment is designed to equate to the equivalent value currently achieved through the remittance of after-tax profits;
 - **Provision for interim (2 - 3 years) advance remittances** – but Regular remittance of the Coal Royalty Fee and the Dividend Payments will substitute for the need for advance remittances to Treasury;
 - **NCE to make financial management decisions** - A detailed business plan will be a key management tool for communicating financial resource allocations in an effective manner.
2. Proposals to support the Creation of an 'Exploration Fund' are:
 - **NCE to establish as a separate account a 'Coal Exploration Fund'** - The long-term aim is to identify a suitable coal resource and capacity in exploration know-how. The financial resources to support this must come from NCE earnings and must be properly allocated towards such an aim.
3. Proposals to support Overall capacity and systems improvements in financial management practices are:
 - **Introduction to increased use of IT and IT systems** - An initial increase in the use of basic IT tools, including M/S Office software for reporting can be the catalyst for progress towards a full IFMIS system;

- ***Convergence to international accounting standards*** - The process or 'journey' towards introduction of IFRS should only commence after initial reforms and systems improvements, including IFMIS have progressed. Once started convergence towards IFRS compliance will facilitate further systems and business process improvements and add value through driving a higher standard of governance and accountability;
- ***More effective asset management practices*** - Title and formal reconciliation of fixed assets, the issuing of good governance practices to control liquid assets and liabilities are all required and should be introduced commensurate with the institutional strengthening, training and capacity to implement and manage effectively;
- ***Commercial, best-practice policies and procedures*** - NCE is to implement a programme of financial management training and to introduce effective internal controls, policies and procedures in accordance with good governance and commercial best practices.

10 Formal Business Planning at NCE

10.1 Introduction to Formal Business Planning at NCE

474. This section of the Report offers an overview of the requirements for “Formal Business Planning” at NCE having due regard to the anticipated implementation of the Strategic Proposal (for Reform and Restructure) that is tendered herein. More detailed assessment and commentary are to be found in the previously submitted Reports “A 3-Year Business Plan for Northern Coal Enterprise” and “A 3-Year Budget for Northern Coal Enterprise”.

475. It should be read in close reference to the contents and proposals of Section 8 – Corporate Governance, Section 9 - Financial Management, and Section 11 – Financial Forecasting & Budgeting.

476. This section of the Report presents, from a predominantly financial and accounting perspective, a specific Business Planning framework for the necessary reforms that will be required as NCE progresses towards the objective of business entity “Commercialisation” together with an indicative “Business Plan” and outline Financial Budget.

477. It is not, however, considered necessary by the requirements of the Proposed Strategic Plan presented in this Report to delay the development and implementation of the Business Planning framework (elaborated herein) until such time as a commitment to Commercialisation is formally made. Indeed, it is held that timely implementation will be advantageous regardless of any future corporate change or restructure.

478. It must be understood that assumptions and proposals within the business plan proffered are submitted in good faith in line with information and understandings of the UNICON team as at the time of delivery. UNICON is not responsible for proposed or required amendments to the rationale and assumptions of the plan that may arise as time lapses beyond the date of delivery of this Report.

479. *To provide greater clarity.* It can be considered that, while the “Business Planning” process aims to identify what a business entity either intends or proposes to do (being largely an expression of future direction), the “Financial Forecasting & Budgeting” process identifies the expected financial outcomes and parameters associated with the actions that are either intended or proposed.

10.2 Why NCE Needs a Business Strategy

480. A clear statement of Business Strategy will allow NCE to communicate to employees, customers, and all stakeholders what the organisation is attempting to do. Most importantly a clearly defined strategy helps optimise performance and business results because it identifies the purpose, objectives and measures against which performance is to be assessed.

481. Lack of a strategy may lead to sub-optimal decisions because there is no benchmark to guide the way forward and a series of decisions may be inconsistent and result in ineffective use of resources. For most businesses many decisions and transactions occur every day. Without a strategy there could be a miss-match in activities that hinders results and reduces future opportunities.

10.3 Practical Corporate Planning Approaches

482. The Corporate Planning process should consider both internal and external influences on NCE. Among them being environment, legislation, competition, geographical markets, and technologies. All elements that will affect business performance.

483. A useful tool for this is the SWOT (Strengths, Weaknesses, Opportunities, and Threats) analysis.

484. While the Board of Directors will ultimately be responsible for the Corporate Plan, and employee buy-in is desirable and required for success, in practise management, with employee input, often provide the basic information and formats of the Plan, suggesting relevant strategies and actions to consider. An effective Board will participate, challenge the issues and offer their own ideas and interpretations to assist the process.

485. After analysis of the situation (e.g. SWOT analysis) internal resources, in terms of money, people and equipment, need to be assessed. Ensuring the availability of key resources is an essential component of the planning exercise and the plan should demonstrate how the acquisition of such resources adds to business competence and how this coincides with achieving new levels of market or product opportunity.

486. Once established, communicating the strategy and business plan is all-important. Communicating a poor strategy is probably unhelpful, but failing to communicate a good strategy is just as damaging. The strategy needs to be well documented to facilitate presentation and communication to all key stakeholders.

10.4 NCE Business Plan Preparation

487. An effective strategic approach and plan, as detailed in this Report, is at the root of all business performance assessment. Business progress and individual achievement is only understood and accountable when it can be measured. To achieve this there need to be established targets, i.e. performance measures that are meaningful to the business, and these are the results of a proper plan with clear vision, objectives, strategies and measurable actions.

488. The approach, the structure and the content of the proposed inaugural business plan for a reformed Northern Coal Enterprise is informed by consideration of the key principles of effective business planning as articulated in the project deliverable '3-Year Business Plan for Northern Coal'. That deliverable also detailed a planning 'framework' suited to state enterprises, and this framework has been followed in preparing a draft business plan for NCE.

489. The totality of other work, analysis and deliverables under this project and the discussions and feedback²⁴, review of prior coal sector studies and experience of the consulting team also influence the content of the proposed plan.

490. This report, the Final Report, details in a comprehensive yet precise manner the proposed strategy and the internal and external factors influencing the choice of strategy and the particular matters that require attention and action to implement the strategy and thus these details form a significant part of any reasonable business plan. Given the comprehensive nature

²⁴ Formal participation and feedback from the ministry has been lacking

of such sections of this report, the following details of the business plan focus on the tabulation and summary of measurable actions, rather than repetition of earlier commentary and analysis.

491. As indicated in the '3-Year Business Plan for Northern Coal' deliverable, strategic options are a reality but a business plan needs to be specific. Effective management and leadership includes the capacity to manage the plan in an iterative manner, so as to adjust planning inputs and outputs in light of new information and thus to be responsive, and to react quickly, as new information impacts on chosen strategy. To this end, while options may be mentioned, specific strategies drive the proposed business plan.

492. The supporting budget document²⁵, is backed-up by assumptions that can be changed and thus alter the budget position. To the extent that MoMP or Northern Coal management opt to amend input assumptions this may require amendment to the wording and detail of the proposed business plan to ensure 'logic and flow'²⁶. To the extent this is done after submission, it cannot be UNICON responsibility.

10.5 Planning Period Objectives

Overview, and Attainment of Period Objectives

493. Broadly Government has indicated and UNICON has asserted that the objectives of reform are to increase government control of the coal mining sector and improve sector performance through:

- Improved operational safety (reduced accidents and fatalities);
- Increased productivity (increased volumes, capacities and attainment);
- Introduction of more modern mining methodologies;
- Improved financial contribution;
- Enhance worker skills and capabilities;
- Increase employment opportunities; and
- Reduce adverse environmental impacts of coal mining.

494. Currently the supply chain from coal production to the consumer market is fragmented, poorly documented and unsafe with many illegal and irresponsible actions moving coal to market. The challenge is not to totally rectify this, as the benefits do not outweigh the costs, rather it is to

²⁵ The budget is a separate deliverable in this project and this deliverable provides the supporting detail and input assumptions to the budget in an excel model

²⁶ The point here is to ensure consistency in the plan. Objectives to be achieved must be supported by necessary resources. Without this link, the objectives are unlikely to be realistic (unfortunately many SOE plans in many countries end up with multiple stated objectives that are a 'wish list' because the resources are never likely to be available to achieve the stated objectives).

improve the situation through cooperative engagement with local producers²⁷ enabling the state, the producers and the consumers to benefit.

495. Despite an estimated small share of the produced tonnage actually recorded through NCE, the entity remains an important contributor to the state budget. The current situation, and state dependence on NCE for revenue prevents effective investment in the coal sector, both to rectify (and improve) the existing operational weaknesses and most importantly to invest in any new coal resources²⁸ that could substantially impact on the overall market, resource value and local energy supply.

496. The proposed Strategic Approach concentrates primarily not on change to the mining methods that prevail (though several important areas for improvement are specifically included), but on a major and substantial restructuring of the “Business Model” under which NCE operates.

497. As productivity and earnings through NCE increase, allocations through funding and training to build capacity for exploration is essential in order to maximise the potential for resource efficiency and value and thus ultimately, to eradicate the adverse impact of existing operational weaknesses.

498. Towards improving these aspects of operations and to achieve the overall reform objectives, specific business plan objectives can be grouped and developed to enable specific strategic actions to drive change:

- To manage the transition away from excessive government oversight towards a commercial business capturing operating efficiencies, improvement in business practices and **improved operational safety** and to manage the social consequences of such change in a responsible manner and through the engagement of expertise in an advisory capacity with a focus on **enhancing worker skills and capabilities [Change Management]**;
- To develop a practical supply-chain arrangement conducive to increased NCE control of the management of coal resources and foster cooperation for **increased productivity** and supply with the small scale independent miners **[Cooperation with independent miners]**;
- To build the resources and capacity to manage a full exploration program and up-skill in appropriate **modern mining methodologies [Exploration Program]**;
- To assist MoMP to ensure that legal and regulatory framework amendments, as necessary are implemented so that related business and financial management structures are engaged quickly to support and facilitate all aspects of the reform strategy **[Regulatory and Process Changes]**;
- Through proactive engagement with local communities, to build community awareness towards **reducing adverse environmental impacts** and to creating

²⁷ Full explanation of this is provided in the earlier project deliverables

²⁸ Exploration activity is sporadic, documentation is old and unreliable, however there exists positive indicators of significant undiscovered coal resources

newer and **increasing employment opportunities** within and in support of mining activity [**Community Engagement**];

- To manage budgets and targets for **improved financial contribution** during reform initiatives and to effectively and efficiently as possible continue to serve existing customers and to manage operations during major business transition. [**Managing business as usual**].

Table 4. Key Objectives to accomplish by the end of the Planning Period

	Key Objectives
Change Management	
A	Engage implementation consultants to assist MoMP and NCE management in the implementation of the reform strategy. Empower the consultants with resources to engage expertise to implement the necessary capacity building specifically for NCE to adequately develop necessary skills
B	Develop a business-wide Capacity Building program to re-skill and re-train selected employees across all business-critical disciplines, specifically: <ul style="list-style-type: none"> ▪ Mining safety and use of mining equipment ▪ Commercial business processes including financial management, record-keeping, marketing and management processes ▪ IT systems, processes and communications
C	Develop sufficient employee assessments and a program to shift employees towards the proposed organisational structure, to reduce numbers and to establish new functional departments
Cooperation with Independent Miners	
D	Build capacity in contracts management and negotiating and managing the agreements/permits with independent sub-contracted miners
E	Secure sufficient permits ²⁹ with independent sub-contracted miners to support the productivity and growth targets
Exploration Program	
F	Build capacity in exploration (geology, surveying, modern mining methods etc.) and develop a program for identifying potential coal resources and to undertake field testing towards full feasibility studies
G	Implement the process to support (and manage) a specific Exploration Fund
Regulatory and Process Changes	
H	Assist MoMP to amend the NCE Commercialisation Decree, attain approval and thus proceed to implement its provisions to permit a commercial, autonomous business operation ³⁰
I	Build capacity in financial management and governance practices and supervise the achievement of specific revenue, profit and investment targets
Community Engagement	
J	Promote awareness of environmental impact through internal environmental management capacity building within NCE and through promotion of environmental awareness and direct assistance to local communities

²⁹ As per the drafts detailed in the Final Report 'Agreement with Sub-Contracted miners' and 'Permit for Sub-contracted miners' that specify the particular terms and conditions of cooperation and provide the rights and obligations between the Sub-Contracted miners and NCE

³⁰ As detailed in the earlier sections of this Report

Managing business as usual	
K	Maintain operations and relationships with employees, customers and suppliers in a harmonious manner while undergoing change
L	Achieve budget targets (<i>essential for cash input to investment and exploration plans</i>)

10.6 Strategies/Actions to satisfy Objectives

Change Management

499. There is a significant amount of change required and capacity development to enable NCE to transform from its present business approach that at best is a passive operating entity, towards a proactive commercially driven business.

500. In addition to a structured program of training and development across the breadth of marketing, asset management, modern technical operations in the coal mining sector, commercial business processes and financial management, the use of information technologies to enhance communications, information flow and business performance monitoring; there is an initial need to introduce key personnel to the principles of Change Management.

501. There is a need to change attitudes as well as operational processes. It will take time, but initial efforts during the early years to alter the mind set of leaders is important in driving change to a commercial orientation.

502. The introduction of specific programs and on-the-job learning to improve skills can then follow and be commensurate with the pace of change (to organisational structure, to management changes, to new safety initiatives and the take-up of sub-contract supply agreements). It is important that as external expertise is procured to assist in capacity building across each technical and business discipline that NCE can leverage from that expertise to build the skills for local managers and workers and to embrace better mining methods, modern operational techniques, the use of IT and effective HSE practices.

503. It is well understood that matters impacting on continuity of employment are very sensitive social and political issues. It is proposed that this is managed in a constructive manner over time so as to minimise disruption and hardship and to utilise natural attrition and potential retirements as mechanisms to absorb surplus employees over a period of years.

Co-operation with Independent Miners

504. The nature of the proposed Sub-Contract agreements aim to promote sharing of information and learning so that the attraction of such arrangements become apparent through improved performances, safer and better work practices and in mutual co-operation for the advancement of all participants in the market. In this regard the specific terms and conditions of the proposed agreements are particularly important.

Exploration Program

505. Directing the appropriate training, to develop capacity over a period of time and to acquire equipment and skills will take a dedicated effort guided by an experienced adviser and with an appropriate budget. Allocating resources towards the initial establishment, training and development and basic equipment to support the appropriate learning is essential. Later, at a time

when capacity targets are reached and funds are available acquiring expertise to undertake exploration drilling should follow.

506. Thus the significance of preparing a detailed exploration program and a budget to support this is regarded as an essential component of the proposed 'reform of NCE' strategy and one that is required to provide Afghanistan with the best possible prospects of identifying and being able to effectively utilise a suitable coal resource conducive to more modern mining technologies and the sustainable production and earnings that are desired.

Regulatory and Process Changes

507. It is necessary that important elements of the reform strategy are underpinned by formal government mandates, through amendments to legislation and the commercialisation decree.

508. Such changes will empower and enable NCE to proceed to implement this strategy and to develop commercial operational and business practices that will underpin the projected progress and planned developments.

Community Engagement

509. Engagement with local Sub-contracted suppliers, through a cooperative arrangement of sharing and support should extend beyond just the coal supply transactions and become the basis of support for local communities and local businesses, environmental and safety improvements.

Managing "Business as Usual"

510. During the period of transition new systems, operating methodologies and organisational structures will be implemented. Significant capacity building will ensue. While this is on going it is important that NCE maintain existing operations, customer relationships and earnings and that the budget targets are reached.

511. Cash flow from 'normal' business is essential in contributing to the overall funding requirements for business development. Even though new systems and processes will emerge, budget targets should be seen as stretch targets, necessary to achieve, and attention to such performance monitoring must emerge early in the reform program.

10.7 Overall Proposed Key Strategic Actions

Table 5. Strategic Actions Table

Strategic Actions	Who	Resources
A. Engage implementation consultants to assist MoMP and NCE management in the implementation of the reform strategy. Empower the consultants with resources to engage expertise to implement the necessary capacity building specifically for NCE to adequately develop necessary skills.		
1. Complete full and detailed skills needs and training needs assessment ³¹	CEO* Manager Administration & HR External Advisers	
2. Engage Consultants/Advisers and Training Suppliers	CEO* Manager Administration & HR External Advisers	Needs support for such extensive capacity building from within the MoMP
3. Early appointment/recruitment of executive management team	CEO*	Approved funding for necessary recruitment
B. Develop a business-wide Capacity Building program to re-skill and re-train selected employees across all business-critical disciplines, specifically: <ul style="list-style-type: none"> ▪ Mining safety and use of mining equipment; ▪ Commercial business processes including financial management, record-keeping, marketing and management processes; ▪ IT systems, processes and communications. 		
4. Design Required Capacity Building Program (<i>to include each course/topic, key persons/positions to attend and a schedule of delivery</i>)	CEO* Manager Administration & HR External Advisers	Approved budget of up to US\$1m per annum for 5 years
5. Implementation the Capacity Building program to benefit NCE managed operations and Sub-Contracted suppliers	CEO* Manager Administration & HR Technical Manager External Advisers	Identify a 'Champion of Change' to lead the change initiatives
6. Development of a Technical Guidance Document to provide guidelines and instructions in respect of safe and efficient mining operations and business practices.	CEO* Technical Manager External Advisers	
C. Develop sufficient employee assessments and a program to shift employees towards the proposed organisational structure, to reduce numbers and to establish new functional departments		
7. Monitor progress of Capacity Building program so as to achieve skills needs and revised organisational structure by Year 5 ³²	CEO* Manager Administration & HR External Advisers	Identify a 'Champion of Change' to lead the change initiatives
8. Complete revision of employee numbers through retirement, natural attritions and redundancy	CEO* Manager Administration & HR External Advisers	Redundancy and Early Retirement package offerings

³¹ Refer to various UNICON reports that indicate skills needs and training needs. However a full TNA based on individuals and a transition to the new proposed Organisational structure was not done, and needs to be done.

³² Specific details of expected needs in terms of people and people skills are detailed in the Organisational Development and Human Resource section of this Report

Strategic Actions	Who	Resources
D. Build capacity in contracts management and negotiating and managing the agreements/permits with independent sub-contracted miners		
9. Select and complete Training (of 'Core Team' ³³ for implementation) and a Program Plan for the take-up of sub-contracting agreements with independent miners.	CEO* Technical Manager Manager Administration & HR External Advisers	Need to train up to 35 new staff in department
10. Develop a process/database for monitoring feedback from sub-contracted miners to include: <ul style="list-style-type: none"> ▪ Mine size, grade, production details; ▪ Quality, quantity, reserve and production methods; ▪ Logistic issues, comments and concerns; ▪ Negotiation issues for consideration in future contracts. 	CEO* Technical Manager External Advisers	PC and manual formats to be designed for capture of important information
E. Secure sufficient permits with independent sub-contracted miners to support the productivity and growth targets		
11. Proactively manage plan for take-up and review contract/agreement terms and conditions as necessary	CEO* Manager Sub-Contracted suppliers	Transport for visitations and information sharing
F. Build capacity in exploration (geology, surveying, modern mining methods etc.) and develop a program for identifying potential coal resources and to undertake field testing towards full feasibility studies		
12. Allocate suitable staff and establish facilities for the Exploration Department	CEO* Manager Exploration	
13. External Adviser (with approval from executive management) to develop a plan for capacity development towards formal field exploration	CEO* Manager Exploration External Adviser	
14. External Adviser to commence and implement training and capacity building program	CEO* Manager Exploration External Adviser	
G. Implement the process to support (and manage) a specific Exploration Fund		
15. Establish formal policies, bank accounts and supervision arrangements for Exploration Fund	CEO* CFO	
16. Prepare detailed plans and budget for Fund income and expenditure over 5 year period	CEO* CFO Manager Exploration External Adviser	
H. Assist MoMP to amend the NCE Commercialisation Decree, attain approval and thus proceed to implement its provisions to permit a commercial, autonomous business operation		
17. External advisers/executive management to engage with MoMP executives as a priority to structure program of approvals and mandates necessary to support reforms	CEO*	

³³ Refer to section 7.2

Strategic Actions	Who	Resources
18. Coordinate meetings/presentations and follow up actions to ensure that approvals are granted in sufficient time to support reforms: <ul style="list-style-type: none"> ▪ NCE to retain earnings and remit a Royalty fee and Dividend to Government; ▪ NCE to be assigned the “Right to Mine” and to issue Permits to Sub-Contracted suppliers; ▪ NCE to negotiate suitable ‘prices’ in its agreements with Sub-contracted suppliers and in its negotiation with customers. 	CEO* CFO Manager Administration & HR	
I. Build capacity in financial management and governance practices and supervise the achievement of specific revenue, profit and investment targets		
19. External Adviser (with approval from executive management) to develop a plan for financial management, business systems and introduction of IT systems (aiming for a gradual convergence towards best-practice procedures and standards)	CEO* CFO Manager Administration & HR External Adviser	
20. Develop appropriate Planning & Reporting formats and underlying support systems and processes	CEO* CFO External Adviser	
21. External Adviser (with approval from executive management) to develop a plan for engagement of suitable Board of Director appointments	CEO* CFO External Adviser	Interaction and cooperation with MoMP
22. Appoint Board of Directors and commence pattern of regular meetings ³⁴	CEO* CFO External Adviser	
23. Develop a process for, and engage Independent Auditors	CEO* CFO External Adviser	
J. Promote awareness of environmental impact through internal environmental management capacity building within NCE and through promotion of environmental awareness and direct assistance to local communities		
24. External Adviser (with approval from executive management) to develop a plan for capacity development towards formal field exploration and community awareness	CEO* Manager Exploration External Adviser	
25. External Adviser to commence and implement training and capacity building program	CEO* Manager Exploration External Adviser	
K. Maintain operations and relationships with employees, customers and suppliers in a harmonious manner while undergoing change		

³⁴ To follow practices and protocols as per Report ‘Board Procedures’

Strategic Actions	Who	Resources
26. Develop and implement a program of continuous information sharing, business improvements and community awareness, including: <ul style="list-style-type: none"> Formal newsletters/publications; Website; Formal regular meetings with stakeholders. 	CEO* Manager Administration & HR External Adviser	
L. Achieve budget targets (essential for cash input to investment and exploration plans)		
27. Commitment to achieve revenue and cash flow targets using cash flow as a source of funding for Exploration and dividends to the state	CEO* Technical Manager CFO	

**The CEO (or acting CEO) and external advisors, with the support of the Minister, will need to take some responsibility for initial actions until the executive management team is in place and suitable advisory support is procured. This whole process may take some time. Thus the CEO must maintain overall responsibility for initiating the strategies for change as per this plan.*

Ultimately each strategy needs one person with overall responsibility and accountability for delivery. The CEO should allocate such accountability accordingly.

512. Support this by a concise statement linking other aspects of the “business as usual” approach identifying the other aspects of the business that contribute to earnings.

513. Business as usual for NCE generally means continuing to procure and supply coal from its internally managed mines and from independent suppliers.

514. It is anticipated that this pattern will evolve into sources of coal from internally managed mines, formally Sub-Contracted Suppliers and external independent suppliers during the short-term years of reform. Only when sufficient tonnages are available through the internal mines and the formally Sub-Contracted Suppliers will NCE be able to cease outsourcing from external suppliers

515. It is important that supply continues as best as possible while initiatives towards safety, semi-mechanised mining and new business processes are implemented. Indeed, the strategy holds that supply and productivity needs to increase to support the proposed changes and to ensure sufficiency of funding for returns to the state budget and the growth of the Exploration Fund.

516. Broadly business cost structures will change to reflect:

- Shift in salary structures from decline in staff numbers and some increases in salary rates for new skilled personnel;
- New departments and resource requirements specifically the management of sub-contract miners and the exploration department;
- The inclusions of operating costs (Opex) from new initiatives including IT costs, tools and equipment and capacity building requirements; and

- The introduction of royalty payments.

10.8 Performance Measures: Key Strategies Attainment

517. Identify quantifiable KPI's that relate specifically to each strategy (include progressive KPI's for multi-period strategies and include both financial and non-financial measures where relevant).

518. Assuming that reform agenda 'starts' at 1 January 2017.

Table 6. Reform Agenda

Key Strategies	Measures	When
A. Engage implementation consultants to assist MoMP and NCE management in the implementation of the reform strategy. Empower the consultants with resources to engage expertise to implement the necessary capacity building specifically for NCE to adequately develop necessary skills.		
1. Complete full and detailed skills needs and training needs assessment ³⁵	> 80% staff assessed 100% staff assessed	April 2017 June 2017
2. Engage Consultants/Advisers and Training Suppliers	100% Complete	August 2017
3. Early appointment/recruitment of executive management team	Contracts signed	September 2017
B. Develop a business-wide Capacity Building program to re-skill and re-train selected employees across all business-critical disciplines, specifically: <ul style="list-style-type: none"> ▪ Mining safety and use of mining equipment; ▪ Commercial business processes including financial management, record-keeping, marketing and management processes; ▪ IT systems, processes and communications. 		
4. Design Required Capacity Building Program (to include each course/topic, key persons/positions to attend and a schedule of delivery)	Completion of first formal training course under contract	September 2017
5. Implementation the Capacity Building program to benefit NCE managed operations and Sub-Contracted suppliers	20% of proposed courses completed	June 2018
	40% of proposed courses completed	September 2019
	100% of proposed courses completed	September 2021
6. Development of a Technical Guidance Document to provide guidelines and instructions in respect of safe and efficient mining operations and business practices.	TGD completed and approved	December 2017
C. Develop sufficient employee assessments and a program to shift employees towards the proposed organisational structure, to reduce numbers and to establish new functional departments		
7. Monitor progress of Capacity Building program so as to achieve skills needs and revised organisational structure by Year 5	Revised Org structure in place with trained and qualified personnel	September 2020

³⁵ Refer to various UNICON reports that indicate skills needs and training needs. However a full TNA based on individuals and a transition to the new proposed Organisational structure was not done, and needs to be done.

Key Strategies	Measures	When
8. Complete revision of employee numbers through retirement, natural attritions and redundancy	100% of employees identified and re-assigned	December 2020
D. Build capacity in contracts management and negotiating and managing the agreements/permits with independent sub-contracted miners		
9. Select and complete Training (of 'Core Team' ³⁶ for implementation) and a Program Plan for the take-up of sub-contracting agreements with independent miners.	Core Team in place and ready to implement Sub-Contract agreements	January 2017
10. Develop a process/database for monitoring feedback from sub-contracted miners to include: <ul style="list-style-type: none"> ▪ Mine size, grade, production details; ▪ Quality, quantity, reserve and production methods; ▪ Logistic issues, comments and concerns; ▪ Negotiation issues for consideration in future contracts. 	Design of process/database	June 2017
	Process/Database fully operational	September 2017
E. Secure sufficient permits with independent sub-contracted miners to support the productivity and growth targets		
11. Proactively manage plan for take-up and review contract/agreement terms and conditions as necessary	50 agreements in Place	December 2017
	150 agreements in Place	December 2018
	250 agreements in Place	December 2019
	350 agreements in Place	December 2020
	450 agreements in Place	December 2021
F. Build capacity in exploration (geology, surveying, modern mining methods etc.) and develop a program for identifying potential coal resources and to undertake field testing towards full feasibility studies		
12. Allocate suitable staff and establish facilities for the Exploration Department	Department functioning and operational	September 2017
13. External Adviser (with approval from executive management) to develop a plan for capacity development towards formal field exploration	Plan approved	December 2017
14. External Adviser to commence and implement training and capacity building program	Training ongoing	March 2018
	Capacity to commence Field exploration	December 2019
G. Implement the process to support (and manage) a specific Exploration Fund		
15. Establish formal policies, bank accounts and supervision arrangements for Exploration Fund	Policies and arrangements approved	September 2017
	Accounts and procedures operating	September 2017
16. Prepare detailed plans and budget for Fund income and expenditure over 5 year period	Plan and budget approved	September 2017
H. Assist MoMP to amend the NCE Commercialisation Decree, attain approval and thus proceed to implement its provisions to permit a commercial, autonomous business operation		
17. External advisers/executive management to engage with MoMP executives as a priority to	Program of required mandates formalised with MoMP and Government	March 2017

³⁶ Refer to section 7.2 Final Report

Key Strategies	Measures	When
structure program of approvals and mandates necessary to support reforms		
18. Coordinate meetings/presentations and follow up actions to ensure that approvals are granted in sufficient time to support reforms: <ul style="list-style-type: none"> NCE to retain earnings and remit a Royalty fee and Dividend to Government; NCE to be assigned the "Right to Mine" and to issue Permits to Sub-Contracted suppliers; NCE to negotiate suitable 'prices' in its agreements with Sub-contracted suppliers and in its negotiation with customers. 	Approvals 100% completed	June 2017
I. Build capacity in financial management and governance practices and supervise the achievement of specific revenue, profit and investment targets		
19. External Adviser (with approval from executive management) to develop a plan for financial management, business systems and introduction of IT systems (aiming for a gradual convergence towards best-practice procedures and standards)	Plan approved	September 2017
20. Develop appropriate Planning & Reporting formats and underlying support systems and processes	Formalised Planning & Reporting in operation	September 2020
21. External Adviser (with approval from executive management) to develop a plan for engagement of suitable Board of Director appointments	Plan approved	December 2017
22. Appoint Board of Directors and commence pattern of regular meetings.	Board appointed	June 2018
	Board fully operational	September 2018
23. Develop a process for, and engage Independent Auditors	Independent Auditors appointed	December 2018
J. Promote awareness of environmental impact through internal environmental management capacity building within NCE and through promotion of environmental awareness and direct assistance to local communities		
24. External Adviser (with approval from executive management) to develop a plan for capacity development towards formal field exploration and community awareness	Plan for Community Awareness and Environmental Impact	June 2018
	Statistical evidence of positive environmental impact ³⁷	June 2019
	Capacity to commence Field exploration	December 2019
25. External Adviser to commence and implement training and capacity building program	Training ongoing	March 2018
K. Maintain operations and relationships with employees, customers and suppliers in a harmonious manner while undergoing change		

³⁷ It is better if a quantitative measure is identified. However, until data is collected and capacity is developed on measuring and managing environmental issues, it is difficult to identify effective measures. Such measures can be introduced into subsequent business plans

Key Strategies	Measures	When
26. Develop and implement a program of continuous information sharing, business improvements and community awareness, including: <ul style="list-style-type: none"> Formal newsletters/publications; Website; Formal regular meetings with stakeholders. 	Develop adequate NCE website	December 2018
	Provide Quarterly newsletter/communications to all employees	June 2018
L. Achieve budget targets (essential for cash input to investment and exploration plans)		
27. Commitment to achieve revenue and profit targets and deliver funding for Exploration and dividends to the state	Net Revenue of > Afs 5.07bn	December 2017
	Net Revenue of > Afs 6.09bn	December 2018
	Net Revenue of > Afs 7.30bn	December 2016
	NPAT of > Afs 714m	December 2017
	NPAT of > Afs 942m	December 2018
	NPAT of > Afs 1,355m	December 2019

11 Financial Forecasting & Budgeting at NCE

11.1 Introduction to Financial Forecasting & Budgeting at NCE

519. This section of the Report offers an overview of the requirements for “Financial Forecasting & Budgeting” at NCE having due regard to the anticipated implementation of the Strategic Proposal (for Reform and Restructure) that is tendered herein. More detailed assessment and commentary are to be found in the previously submitted Reports “A 3-Year Business Plan for Northern Coal Enterprise” and “A 3-Year Budget for Northern Coal Enterprise”.

520. It should be read in close reference to the contents and proposals of Section 9 – Corporate Governance, Section 10- Financial Management, and Section 11 – Formal Business Planning at NCE.

521. This section of the Report presents, from a predominantly financial and accounting perspective, a specific Financial Forecast & Budgeting framework for the necessary reforms that will be required as NCE progresses towards the objective of business entity “Corporatisation” together with an indicative outline Financial Budget and other key Financial Reports.

522. It is not, however, considered necessary by the requirements of the Proposed Strategic Plan presented in this Report to delay the development and implementation of the Financial Forecasting and Budgeting framework (elaborated herein) until such time as a commitment to Commercialisation is formally made. Indeed, it is held that timely implementation will be advantageous regardless of any future corporate change or restructure.

523. *As previously stated, and to provide greater clarity:* It can be considered that, while the “Business Planning” process aims to identify what a business entity either intends or proposes to do (being largely an expression of future direction), the “Financial Forecasting & Budgeting” process identifies the expected financial outcomes and parameters associated with the actions that are either intended or proposed.

524. It must be understood that assumptions and proposals within the business plan proffered are submitted in good faith in line with information and understandings of the UNICON team as at the time of delivery. UNICON is not responsible for proposed or required amendments to the rationale and assumptions of the plan that may arise as time lapses beyond the date of delivery of this Report.

11.2 Effective Budgeting

525. A budget is a financial representation of a plan, usually the corporate business plan.

526. Preparing budgets, usually on an annual basis is a widely established norm especially among large businesses. With the growth in computer software sophistication, the budget process can proceed faster and in more detail than ever before. Nonetheless, there is still much effort and important assumptions that must inform the annual budget exercise.

527. A key principle in budgeting (and business planning) is the ethos “for one unit of time spent in planning and preparation, multiple units of time are saved in execution”. Essentially this means that the better the planning and budgeting – the better logic and consistency – will assist

in better understanding of actual results and variations from budget as they arise and thus permit more efficiency and effectiveness in overall business performance measurement.

528. Clearly it follows that efficiency is achieved by applying sensible well thought structures to the budget process and most importantly, during the financial year, by carefully reconciling actual results to budget on a regular basis.

529. Effective budgeting thus requires:

- A clearly defined organisational structure;
- Accurate accounting systems;
- Clearly defined policies;
- Active participation by senior management;
- A logical sequence in budget preparation; and
- Clarity of assumptions made.

530. The combination of these factors will ensure that a credible budget can be achieved and one that can be understood, so that if and when actual results differ by budget departments, cost centres, product returns or overhead expense or other line items, there is relevant logic in assessing variances, their impact on the business and on future business planning.

531. While a corporate budget is a monetary expression of the business plan, it also serves as an allocation of financial resources and a distribution of such resources among departments and business cost/profit centres. Thus budgets serve multi-purposes and increase the capacity to manage around key financial goals and targets. But this must not be mistaken as a panacea for all. Other non-financial measures and other developmental and growth objectives should also be considered in assessing overall business performance. This is why budgeting is best considered as an essential sub-set of effective business planning and certainly not as a discrete independent exercise.

532. The budget should be a monetary representation of the business plan. Key goals and achievements expressed in the plan should be evident in the sales, profits and investments shown in the budget. Appropriate costs of resources and administration to achieve such goals and investments should also be shown. The budget should then be broken down in sufficient detail, by department, functional area or product so that it is a working document available for regular periodic reconciliation.

533. In this way budgeting provides a mechanism for:

- Planning;
- Control;
- Communication;

- Identifying variances;
- Making corrections; and
- Re-appraisal.

11.3 Budget Preparation

534. Extensive study courses and books have been written relating to the topic of budget preparation. Such detail is beyond the scope of this project and this report. An introduction to the topic has been provided for NCE in the Financial Management training program delivered in December 2015. It was agreed with NCE representatives that further learning will be beneficial and that follow up training should be sourced. Indeed a proposed budget line item is the costs associated with various components of capacity building for NCE.

535. Broadly budget preparation depends on identifying the anticipated revenues, expenditures, cash flows and changes in assets and liabilities that will be incurred in the budget period. As indicated the key source of this information should be the business plan. However, an effective business plan does not fully regurgitate the “business as usual” component of most business operations and so it is common practice that many revenues and expenditures can be estimated (for budget purposes) based on a review of prior year activity. Of course, adjustments should be made for known new markets, new products, new costs and/or changes to existing activities (but such new activity and changing activity is indeed the subject for the business plan).

536. Therefore effective budgeting is often a combination of updating estimates based on prior year actual knowledge, adding the financial impact of proposed changes to activity, adjusting for external factors such as exchange and interest rates and then modifying for any constraints on resource allocations (such as the need to reduce staff costs or close specified business operations).

Budget Preparation: Northern Coal Enterprise

537. In proposing an initial 3-year budget for NCE, UNICON has adopted this approach and extracted useful information from prior year results, added and amended these for the impact of the proposed new strategy within the business plan and modified the impact of reform, internal capacity and resources.

538. Key assumptions have been made, regarding volumes and prices of coal, NCE operating expenses and any CAPEX related to infrastructure and mining activities.

539. To facilitate Northern Coal use of, and management of the budget an Excel-based tool has been created for input of the budget variables and assumptions and the budget model has been created such that changes to any assumption will automatically flow through the model and update the budget. In this manner it becomes a practical and useful tool as well as an informative output.

540. UNICON recommends that similar simple, yet robust budget tools be used, so as to ensure that adjustments to one (or more) variables or underlying assumptions are properly linked

through to the overall budget. This will permit effective updates and monitoring as new information arises and as the fiscal year progresses.

541. This excel tool is informed by the proposed new Chart of Accounts for Northern Coal, as provided under this project and it identifies, broadly, new expense categories resulting from the proposed reform initiatives.

Accrual and Allocations

542. Given the desire to ensure that the proposed reform initiatives provide for increased revenues and profits from NCE operations and that these can result in increasing cash remittances to the government, it is appropriate that the emphasis on budget management, especially in the formative years is on cash rather than accrual.

543. The full impact of accrual accounting is yet to be realised at NCE and is a topic of financial management capacity building that should evolve during the formative years of reform.

544. The Profit & Loss budget therefore does not attempt to manage all of the nuances of accrual accounting (inventories, accounts receivables and accounts payables) but it does include those items that inform the basic economy of developing the NCE business (depreciation, borrowing etc.). It remains the assumption that many transactions and particularly acquisition of coal (from sub-contracted suppliers) and receipts from customers will be largely in cash.

11.4 The Budget Model for NCE

545. An extract from the summary draft budget (as at the date of this report) is provided in the next section and the budget model as an attached excel file.

546. No further explanation is given in this report, as the budget file aims to be self-explanatory and provide the necessary detail supporting the assumptions and variables.

547. In addition the budget does not fully allocate all costs to the detailed account codes, as this is a futile exercise in guesswork. Significant changes will occur in organisational structure and operations as well as the use of new systems and the new chart of accounts. Therefore, the budget applies proposed revenues and costs to appropriate economic codes (first two digits) and the detailed allocations can be filled in as greater understanding and knowledge is derived through use of the budget as a tool.

548. It must be noted that the budget model uses assumptions as indicated and as derived from the project analysis work. In one or two instances a project report provides some analysis of anticipated costs and the budget model approximates to these. The budget model attempts, where possible, to use uniform factors of change year-on-year so it is easier to amend any assumptions and variables made. This results in minor differences to some of the project report analysis, (e.g. regarding annual production volumes, annual IT costs).

549. The model is supported by a second file 'Scenarios' that indicates up to eight (8) alternative sets of assumptions and provides ease of amending data to quickly see the outcomes if one of the eight alternative scenarios arises. In this file, all assumptions and variables can be amended.

550. The accompanying Excel model shows the budget in US\$ and AFN and projected Financial Statements for the first three years in AFN.

All assumptions are as indicated in the supporting pages of the excel file.

Table 7. Summary of Key Budget Data

		Year 1	Year 2	Year 3	Year 4	Year 5	Cumulative Yr 1 - 5	Cumulative US\$m
Production	Tons	1,810,000	2,170,000	2,600,000	3,130,000	3,750,000	13,460,000	
Net Price/ton	Afs/Ton	1,600	1,600	1,600	1,600	1,600		
Revenues	Afs	5,076,000,000	6,092,000,000	7,300,000,000	8,788,000,000	10,540,000,000	37,796,000,000	629.9
NPBT	Afs	858,087,150	1,171,521,985	1,715,605,564	2,331,258,042	3,068,233,432	9,144,706,173	152.4
Government Take		1,904,763,379	2,206,422,944	2,635,527,511	3,115,948,721	3,673,596,831	13,536,259,386	225.6
NPBT Growth	%		37%	46%	36%	32%		
Government Take Growth	%		16%	19%	18%	18%		
Exploration Fund		109,835,155	149,954,814	219,597,512	298,401,029	392,733,879	1,170,522,390	19.5

Table 8. Budget Profit & Loss Account (Afs)

PROFIT & LOSS ACCOUNT	Year 0 Base	Year 1	Year 2	Year 3	Year 4	Year 5
Net Revenue	4,202,158,500	5,078,283,150	6,094,409,785	7,302,531,004	8,790,632,504	10,542,721,114
Cost of Coal Sales	1,384,000,000	1,562,910,000	1,716,400,000	1,885,114,000	2,070,574,400	2,274,455,840
Gross Profit	2,818,158,500	3,515,373,150	4,378,009,785	5,417,417,004	6,720,058,104	8,268,265,274
GP%	67%	69%	72%	74%	76%	78%
Expenditure	218,500,000	2,657,286,000	3,206,487,800	3,701,811,440	4,388,800,062	5,200,031,842
Net Profit Before Tax	2,599,658,500	858,087,150	1,171,521,985	1,715,605,564	2,331,258,042	3,068,233,432
Income Tax at 20%	(519,931,700)	(171,617,430)	(234,304,397)	(343,121,113)	(466,251,608)	(613,646,686)
Net Profit After Tax	2,079,726,800	686,469,720	937,217,588	1,372,484,451	1,865,006,433	2,454,586,746
Dividends Payable	(415,945,360)	(137,293,944)	(187,443,518)	(274,496,890)	(373,001,287)	(490,917,349)
Retained Profit	1,663,781,440	549,175,776	749,774,070	1,097,987,561	1,492,005,147	1,963,669,397
NCE Retained Earnings	1,331,025,152	439,340,621	599,819,256	878,390,049	1,193,604,117	1,570,935,517
Exploration Fund	332,756,288	109,835,155	149,954,814	219,597,512	298,401,029	392,733,879
	1,663,781,440	549,175,776	749,774,070	1,097,987,561	1,492,005,147	1,963,669,397

Table 9. Budget Balance Sheet (Afs)

BALANCE SHEET	Beginning Base	Year 1	Year 2	Year 3	Year 4	Year 5
Non-Current Assets						
Property, Plant & Equipment	-					
Land & Building Structures	700,000,000	710,000,000	720,000,000	730,000,000	740,000,000	750,000,000
Acc Dep		(17,750,000)	(35,750,000)	(54,000,000)	(72,500,000)	(91,250,000)
Machinery & Spare Parts	10,000,000	123,800,000	133,800,000	143,800,000	153,800,000	163,800,000
Acc Dep		(22,760,000)	(46,520,000)	(71,280,000)	(97,040,000)	(123,800,000)
Mechanical & Vehicles	10,000,000	20,000,000	30,000,000	40,000,000	50,000,000	60,000,000
Acc Dep		(1,400,000)	(3,500,000)	(6,300,000)	(9,800,000)	(14,000,000)
	720,000,000	811,890,000	798,030,000	782,220,000	764,460,000	744,750,000
Current Assets						
Cash & Cash Equivalents	1,150,000,000	1,607,285,776	2,370,919,846	3,484,717,407	4,994,482,554	6,977,861,950
Inventory	200,000,000	200,000,000	200,000,000	200,000,000	200,000,000	200,000,000
Receivables	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
TOTAL ASSETS	2,080,000,000	2,629,175,776	3,378,949,846	4,476,937,407	5,968,942,554	7,932,611,950
Current Liabilities						
Payables	80,000,000	80,000,000	80,000,000	80,000,000	80,000,000	80,000,000
NET ASSETS	2,000,000,000	2,549,175,776	3,298,949,846	4,396,937,407	5,888,942,554	7,852,611,950
Equity						
Owner's Capital	2,000,000,000	2,000,000,000	2,000,000,000	2,000,000,000	2,000,000,000	2,000,000,000
Retained Earnings		439,340,621	1,039,159,877	1,917,549,926	3,111,154,043	4,682,089,560
Exploration Fund		109,835,155	259,789,969	479,387,481	777,788,511	1,170,522,390
EQUITY	2,000,000,000	2,549,175,776	3,298,949,846	4,396,937,407	5,888,942,554	7,852,611,950

Table 10. Budget Cash Flow (Afs)

CASH FLOW STATEMENT	Year 1	Year 2	Year 3	Year 4	Year 5
Net Profit from P&L	858,087,150	1,171,521,985	1,715,605,564	2,331,258,042	3,068,233,432
Depreciation Expense	41,910,000	43,860,000	45,810,000	47,760,000	49,710,000
Tax Payable	(171,617,430)	(234,304,397)	(343,121,113)	(466,251,608)	(613,646,686)
Cash Flow from Operating Activities	728,379,720	981,077,588	1,418,294,451	1,912,766,433	2,504,296,746
Acquisition of Fixed Assets	(133,800,000)	(30,000,000)	(30,000,000)	(30,000,000)	(30,000,000)
Proceeds from Sale of Fixed Assets	-	-	-	-	-
Cash Flow from Investing Activities	(133,800,000)	(30,000,000)	(30,000,000)	(30,000,000)	(30,000,000)
Proceeds from Loans	-	-	-	-	-
Repayments of Loans	-	-	-	-	-
Dividends Payable	(137,293,944)	(187,443,518)	(274,496,890)	(373,001,287)	(490,917,349)
Changes in Financing Activities	-	-	-	-	-
	-	-	-	-	-
	-	-	-	-	-
Cash Flow from Financing Activities	(137,293,944)	(187,443,518)	(274,496,890)	(373,001,287)	(490,917,349)
Cash Flow from All Activities	457,285,776	763,634,070	1,113,797,561	1,509,765,147	1,983,379,397
Cash Flow at beginning of Year	1,150,000,000	1,607,285,776	2,370,919,846	3,484,717,407	4,994,482,554
Cash Flow at beginning of Year	1,607,285,776	2,370,919,846	3,484,717,407	4,994,482,554	6,977,861,950

11.5 Conclusions to Financial Forecasting and Budgeting

551. The proposed budget adequately considers a new commercial orientation to NCE operations as underpinned in the proposed strategy for reform and the draft business plan.

552. The excel-based budget model illustrates how existing data and new data has been combined, based on specific assumptions and how such data has been adapted towards the proposed chart of accounts and new accounts preparation formats.

It is recommended that NCE adopt this approach and format to budgeting and embrace the more inclusive and comprehensive nature of annual business planning and budgeting as a key instrument of business control and management.

12 Human Resources and Organisational Development

12.1 Introduction

553. To facilitate the implementation of the strategy as detailed earlier in this report, important changes will be required in the organisational structure of NCE and in the role of the human resources department.

554. While it is important that such changes aim to ensure continuity and improvement of the HR support function and to improve the efficiency of the workforce there are **three key strategic** changes to the organisational and HR elements necessary to underpin a successful implementation of the NCE reform strategy:

- ***The creation of two new functional departments:***
 1. **A “Sub-Contracted Suppliers”** department to be established exclusively for the management of sub-contract agreements, supervision and monitoring of sub-contracted suppliers and to support the efforts for assistance in mining, mine safety and efficiencies of the Sub-Contracted Suppliers;
 2. **An “Exploration”** department to be established exclusively to learn and acquire itself with new skills in geology, surveying and field exploration activity, environmental management and to develop the know-how and skills to instigate and support a full coal exploration programme. This department will be financed through the use of the proposed Exploration Fund.
- ***The implementation of a comprehensive and detailed capacity building*** programme to evolve over a 5-year period to support the instigation of new skills, new business and technical processes and to re-skill and up-skill existing employees in priority to recruiting or ‘buying-in’ the skills necessary for the effective implementation of the NCE reform strategy, and
- ***The re-allocation of existing staff to better suit the needs of a new commercially-focused organisation;*** such a re-allocation based on existing skills (and learned skills) and staff roles and tasks directly in support of the new NCE strategy as detailed herein.

555. These changes will be achieved through a carefully planned and implemented programme to optimise the structure of the organisation and the use of the skills, knowledge and ability currently existing, augmented by extensive training and capacity building efforts. It will be a comprehensive reform programme requiring a significant investment of time and money.

556. The HR Department with support and guidance from external consultants (if deemed necessary), will lead this reform effort and to be responsible for the overall planning, coordination and implementation of actions to satisfy the requirements of the proposed reform strategy.

12.2 Organisational Structure

Current Status and Staffing

557. There is currently 508³⁸ Tashkeel (State Employees) staff in NCE. Of these 204 is Karmand (professional) staff, with the other 304 designated as Ajir³⁹ (support) staff. Of these 508, there are 190 (74 Karmand and 116 Ajir) employed at NCE head office in Puli Khumri, the remainder of 318 persons (134 Karmand and 184 Ajir) are at the mine sites.

558. Additionally, there are over 400 independent “contract” miners with short-term, informal (sometimes verbal) contracts to work in the four functioning mines operated by NCE. These coal winners (mine crews) are not employees of NCE, but independent contract workers – generally deemed as “self-employed” - who do not enjoy any of the legal protection, entitlements or benefits received by the direct employees.

559. This Report considers that this combined total (900+) of workers and support staff (including the high number of Ajir staff is excessive in terms of the quantity of coal that NCE currently produces from its four directly owned and managed mines. An organisation that, overall, is barely capable of producing slightly more than two tonnes of saleable coal per day per person engaged in the conduct of that organisation must – by any standard – be adjudged as inefficient).

560. Despite the paucity of available and verifiable information, as mentioned in both the Assessment Report and the Restructuring and Social Mitigation Plan⁴⁰ it is asserted that:

- NCE is weak in its management and supervisory capacity. It is understood that management/supervisory training has never been provided in any systematic way;
- NCE has relatively few staff with relevant higher (tertiary) level qualifications;
- NCE has not allocated funds to undertake training and recent instances of formal courses have been restricted to a few provided in the context of other donor funded projects;
- There is a lack of IT knowledge and skills and a lack of other technical skills related to the mining industry;
- Some of the available knowledge and skills do not appear to be fully utilised currently (some qualified personnel are in manual labour positions), but do suggest some potential for a sustainable capacity development programme;
- Of the total number of professional staff almost 60% are over the age of 50, (19% (39) of the Karmand staffs is already 60 years of age or more, and it can be assumed that during the interim five year period they will all be retiring) with significant relevant experience and knowledge that must be optimally utilised. However, it is often the younger age-groups that are more accepting of change and more adaptable to new technology and the increasing reliance on IT in all parts of the business; and

³⁸ Correct number at the time of UNICON analysis work

³⁹ We understand some of these work either directly, or in support of, mining crews to win the coal

⁴⁰ These reports are specific project deliverables that contain more information regarding the status of organisational structure and human resource functions at NCE.

- Around 7% of the professional staffs are female, who all possess a baccalaureate qualification.

Reformed Organisational Structure

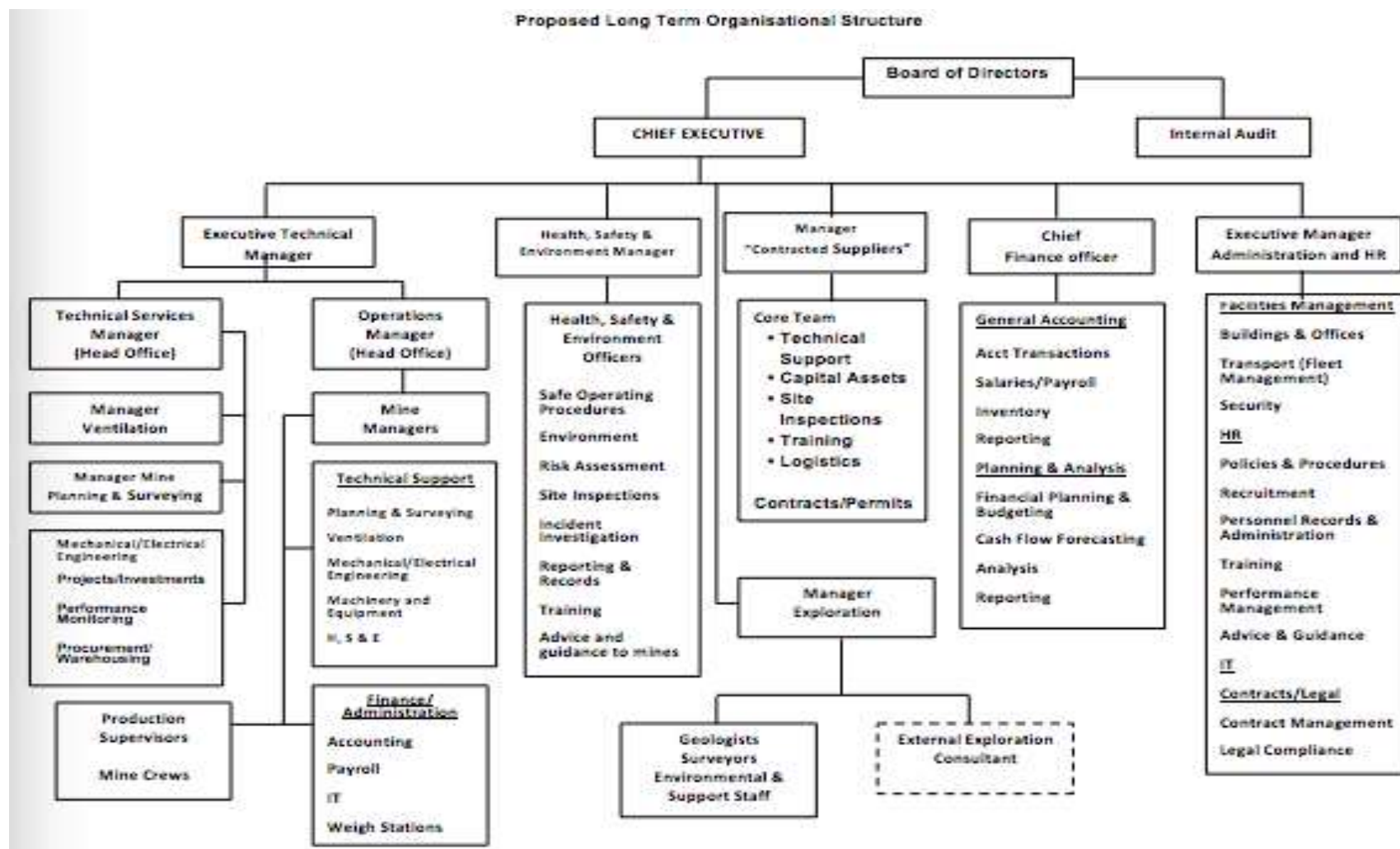
561. NCE needs to take immediate steps to address its weaknesses and to support the proposed reform strategy. Specifically this requires NCE to amend its organisational design in support of two new departments that are pivotal to the success of the proposed reform strategy:

- A department to assist and support the formally “Sub-Contracted Suppliers” primarily to improve existing mining practices and to develop safe working environments for the mine crews; and
- A department to establish an Exploration Department to oversee the introduction of an exploration programme to locate and identify new coal resources, for exploitation and extraction by more modern, safer and more cost-effective mining methods than those currently practised.

562. Underpinning these specific new departments, NCE needs to adopt a more commercial outlook in its business operations and practices⁴¹. New skills and a more efficient organisational structure are required. The following organisation structure is recommended.

⁴¹ Details of such practices are found throughout this Report and particularly in relation to Financial Management (section 10), Mining Operations (section 14) and Safety (section 15).

Table 11. Proposed Long Term Organisational Structure



563. The following points are noted:

- The role of the Board of Directors;⁴²
- Good corporate governance demands that internal audit, so as to function independently from operations and avoid the potential risks of undue influence and loss of transparency, be responsible only to the Board.

564. A complete suite of organisation charts complementing the outline structure illustrated above and covering all departments proposed for inclusion in the organisational structure is attached as Appendix 4.

12.3 Staff Reform Programme

Staff & Role Assessment

565. Broadly the concept of a staff reform programme is the essence of the proposed organisational and human resource changes. This embraces the re-alignment of staff, the education and capacity building of staff and the release of non-essential staff.

Two key exercises are needed to facilitate the planning of a staff reform programme:

- *A comprehensive assessment of existing employees to determine details of qualifications, age, skills and experience, to obtain a complete picture of the overall competence of existing staff; and*
- *To define all the positions and requisite qualifications, skills and experience that are necessary to satisfy the requirements of the proposed roles/positions within the new organisational structure.*

566. Once completed, a matching of data from these two exercises reveals a 'skills gap' and provides important information to feed into a capacity development programme for 'training needs'.

567. While it may be more efficient to recruit necessary skills and experience into the organisation⁴³, for reasons of stability, social mitigation management and in recognition of the potential of existing employees and the time available, it is proposed that a priority is given to re-training and re-education of existing employees. For this reason the staff reform programme attaches great emphasis on extensive capacity building. Some re-assignment of staff, natural attrition and a few new recruits and terminations may accompany this major capacity building initiative.

568. ***A Senior Management Team should be established to take responsibility for the Plan and for the management of the change process.*** Critical to the success of the process is

⁴² Refer section 8.5 "Board of Directors"

⁴³ That said there is no strong evidence that all the skills and competencies are readily available in Afghanistan and there is no evidence to suggest that international skilled employees would be attracted to NCE at this time. Thus even with heavy recruitment significant internally driven capacity building is still likely to be needed.

the delivery of an informative communications programme to keep employees aware of pending changes and new initiatives throughout the programme.

569. In making staff changes the Senior Management Team should:

- Use the opportunity to accelerate potential;
- Ensure a balance between retained expertise and young, dynamic potential;
- Consider career development opportunities and the aspirations of the more motivated staff;
- Consider all options for staff in redundant positions before selective redundancy e.g. re-training, re-assignment, early retirement etc.;
- Assess new technologies and systems that are going to be introduced and determine if some employees can be retrained to meet some of those new needs; and
- Consider some qualified and capable individuals are under-utilised and opportunity should be provided to more effectively utilise existing skills and knowledge.

Staff Reductions

570. It is likely that overall employee numbers will be reduced. However, the proposal is a 5-year transition and the use of natural attrition (**Retirements**) as the key mechanism for reducing overall employee numbers.

571. To achieve this ***it is essential that there is a Recruitment Freeze with no further recruitment carried out until a full assessment of the organisation has been conducted*** and the requirements of the revised structure identified. Only special identified positions will then be systematically recruited, but the replacement of retiring individuals will **not** occur.

572. The Social Mitigation Plan Report identifies a number of additional mechanisms⁴⁴ that may be used to assist in overall staff re-allocations and reduction in employee numbers. The table below indicates that these numbers are expected to be minimal and have very limited adverse consequences to the individuals and the community.

573. Apart from an occasional natural attrition (death, disability and dismissal) an early retirement scheme and voluntary redundancy scheme may be a useful tools. ***NCE will need to follow existing legislation and prepare such schemes so as to only attract surplus employees*** while making such schemes attractive enough so as to achieve their objectives and minimise displacement and social hardships. It is anticipated that over the 5-year period one or both of these schemes will only be used occasionally and to 'manage' the mitigation of around 20 employees.

⁴⁴ Job sharing and part-time work and outsourcing of some functions may be useful mechanisms

574. On completion of the detailed staff assessments and skills gap and the consideration of overall numbers there should be in place a detailed plan for each department, which:

- Identifies the people who will fill the positions in the new structure; and
- Identifies those who will be retiring and subject to redundancy, if any.

Employee Resource Centre

575. ***It is strongly recommended that an*** Employee Resource Centre ***be established*** to carry out the following important activities:

- To oversee and administer the organisational and personnel changes;
- To provide support to redundant/early retiring employees to assist them to overcome the issues arising from the loss of their jobs;
- To provide assistance with training and re-training opportunities; and
- Through external advisers to offer guidance in other areas such as business start-up, creation of a co-operative, financial counselling etc.

576. Ideally, this centre should be managed by an experienced member of staff from the Human Resources Department with another HR employee to provide administrative support.

Implementation of the Reform Programme

577. ***A Senior Management Team will need to have specific oversight of the staff reform programme.*** It should be managed and monitored on a day-to-day basis from the HR Department with specific tasks allocated to the Employee Resource Centre.

578. In addition, due to the demands of this task and its significance to the overall reform implementation strategy and the relationships to the commercial and legal changes required, operating systems and technical mining and safety initiatives, establishment of the exploration department etc., the programme needs the input of expert consultants, both to supervise the programme and specifically to deliver significant components of the training and capacity building programme that need to be in-house and customised to NCE.

Proposed Staff Reform Plan

579. As indicated a detailed staff reform plan must be developed that should demonstrate how to transition staff commensurate with internal capacity through budget and financial means, as well as skills acquired and based on the findings of the training needs analysis.

580. For the purposes of overall shape of strategy implementation it is useful to provide a guide of how the people numbers, financial implications and timing of activity can occur.⁴⁵

⁴⁵ These details will need to be reviewed and revised once the programme implementation is underway

581. The following table provides insight to the current thinking and proposals consistent with the overall strategic direction for reform.

582. The table indicates that the current staff of 508 will be transitioned to the estimated required number of 363, as evident in the detailed organisational charts in Appendix 4. The table indicates that approximately 10 new senior staff should be recruited and 155 will be released mostly through natural attrition of retirement (estimate 135). Incentives for approximately 20 staff will assist this process so that $508 + 10 = 518 - 155 = 363$.

583. An estimated budget of US\$4.3m over 5 years will be required.

Table 12. Estimated Budget

ITEM	Unit	Year 1	Year 2	Year 3	Year 4	Year 5	Total
International Consulting Contracts (Capacity Development Programme) including Specialist consultants (Exploration, IT, HR, Finance, Engineering, HSE, etc.)	<i>Estimated 8 persons 15 months inputs each over 5 years</i>						
	US\$	500,000	700,000	700,000	700,000	400,000	3,000,000
External Courses and Training Aids	US\$	150,000	250,000	200,000	100,000	50,000	750,000
Retirements /Natural Attrition	No.	30	30	20	20	35	135
Early Retirement Incentives / Redundancy (US\$12,000)	No.		20				20
	US\$		240,000				240,000
Transfers to Departments (Sub-Contract & Exploration)	No.	40	40	20			100
Creation HR & ERC	No.	4					
	US\$	80,000	80,000				160,000
Recruitment Campaign (Advertising, Expenses, Agency Fees)	No.	10					
	US\$	75,000	75,000				150,000
Annual Budget	US\$	805,000	1,345,000	900,000	800,000	450,000	4,300,000

12.4 Capacity Development Programme

Introduction

584. This Capacity Building or Development Plan has the objective of developing the technical and managerial skills of the workforce within NCE, both individually and collectively, to strengthen, expand and sustain the ability to produce coal efficiently and effectively.

585. Of critical importance to the success of the strategy is the creation of the two new departments – “Sub-Contracted Suppliers” and Exploration. The skills relevant to these two functions must feature strongly in the capacity building programme.

586. It is recommended that the detailed programme should be developed, prepared and delivered by the Expert Consultants as a component of the overall reform process and as supported and reviewed by the Senior Management Team.

587. Generally the capacity development programme must address specific management, business and technical skills needed and supplement this with attention to ‘softer’ skills that are important in assisting individuals to improve their individual performance and acceptance of greater responsibilities. More details of courses and programme development is given in Appendix 4.

588. To maximise the results of the retraining programmes, courses should be a mix of practical and theoretical training. Training programmes could include:

- Formal workshops and courses addressing specific topics and with a specified series of objectives and learning outcomes;
- Informal mentoring and coaching to identified individuals through the duration of the capacity building programme; and
- On the job training, where workers are provided with a unique opportunity to extend their existing skills by working alongside an industry expert.

589. It must be remembered that the retraining should be directed towards preparing individuals to operate with new business or technical systems and processes and/or to be re-deployed in new positions within the revamped organisational structure.

Methodology

590. Information and feedback from the staff reform plan, specifically the skills gaps identified will be directly relevant in preparing the necessary training and capacity development plan.

591. The expert consultants, with support from the Senior Management Team, will need to evaluate the mix of generic (outside) courses that can be useful and acquired from international or local training providers, and the extent to which specific NCE programs need to be prepared and delivered.

592. It is anticipated that generic courses will be applicable for initial uptake of softer management skills (Time Management, Managing People, etc.) and basic technical skills such

as computer operations and M/S software usage, accounting, general mining, basic geology etc. However, it is anticipated that most effort will be based on preparing NCE-specific courses, both formal and informal and on-the-job training over the extended 5-year period to accomplish all that is required of the capacity development initiative.

593. Further details of training requirements, subject matter and methodology are provided in Appendix 4b)

12.5 Human Resources Function

An important feature of organisational change at NCE should be strengthening of the human resource function.

Current situation within HR

594. Currently the NCE HR activities are focused on the need to conduct a large number of administrative and record keeping tasks (maintenance of personnel records and files, recruitment process and administration) almost entirely on a manual basis.

595. The HR department complies fully with its obligations and the requirements of the law and the HR staffs execute their duties competently.

596. There is no Human Resources Policy and Procedures manual in place.

597. There is no evidence of understanding of the broader role the HR function plays in a modern business environment.

Recommendations for improvement

598. Significant changes are needed to re-position the existing HR function in NCE and support the implementation of the strategy and long-term objectives. ***Appropriate procedures and practices need to be developed to ensure that the HR function offers support and development to employees*** beyond just administrative tasks. ***Capacity needs to be developed to ensure that a fully reformed NCE can adequately compete as a commercial business*** and be effective in its Recruitment & Selection, Reward & Motivation, Performance Management and Appraisal and Training & Development so that employees can build effective personal careers and assist in the growth and development of the business.

599. Ultimately, after the transition period, the concept of NCE performance management in its broadest sense will be business-critical. As indicated earlier in this report, business planning and assessment / monitoring against the plan will emerge as an important evaluation tool. Most successful businesses develop individual performance management and appraisal processes to ensure individual performance aligns to overall department and business performance goals.

600. An important aspect of development of the HR function will be to ensure each role is clearly identified and job descriptions are clear to ensure that the key responsibilities of the HR function are being performed. While it is certain that the need for clear and concise job descriptions for each position across the whole organisation is paramount, it is equally evident that HR must ensure its own department is in order so that it is best equipped to assist other departments in the important yet onerous task of developing suitable job roles, position descriptions, recruitment and selection and performance monitoring.

601. Details of important HR functions and responsibilities can be found in Appendix 4.

12.6 Conclusions on HR and Organisational Development

To implement the proposed strategy for reform of NCE, it is recommended that significant attention be given to Organisational Development and Human Resources because the Human Resource Department will be the focal centre for the necessary organisational changes and managing the capacity building that is necessary to underpin implementation of the strategy.

602. Essential changes in support of the strategy implementation are the creation of two new functional departments:

- ***A Sub-Contracted Suppliers department to be established*** exclusively for the management of sub-contract agreements, supervision and monitoring of sub-contracted suppliers and to support the efforts for assistance in mining, mine safety and efficiencies of the sub-contracted suppliers;
- ***An Exploration department to be established*** exclusively to learn and acquit itself with new skills in geology, surveying and field exploration activity, environmental management and to develop the know-how and skills to instigate and support a full coal exploration programme. This department will be financed through the use of the proposed Exploration Fund,

603. In addition is the preference towards extensive capacity building of existing employees to develop the commercial skills needed to progress the business and as indicated the Human Resource department should be the focal point for coordination and management of the capacity development plan with significant assistance from external development experts.

604. Embedded within these required changes will be the building of skills within the HR department itself, away from purely administrative tasks, to embrace the developmental functions associated with modern commercial businesses that aim to support individual career progression and provide for organisational succession and sustainability.

13 Technical and Mining Operations Considerations

13.1 Introduction

605. This section (13 Technical and Mining Operations Considerations) is the most substantial of the Report, and addresses those technical and mining aspects that are associated with, or consequential to, the strategy for Reform and Restructuring (of NCE) that is presented in this document.

606. This Report recommends a strategy in which NCE improves its performance and results through:

- Establishing formal, co-operative arrangements with (formerly) Independent Miners, who thereafter become “Sub-Contracted Suppliers” (of coal to NCE);
- Adopting improved (and more productive) mining practices in the mines that NCE directly controls and operates;
- Supporting the “Sub-Contracted Suppliers” with training and material assistance to promote safer (and more productive) mining;
- Forming an “in-house” exploration department tasked with the identification and validation of additional coal resources that are more amenable to modern mining methodologies;
- Developing and bringing to production a new mining facility that will exploit more modern extraction technologies while exploiting the new coal resources that have been identified;

607. This Section addresses those key technical and operational elements necessary to realise the objectives of the proposed strategy in respect of both NCE’s directly controlled mines and the mining operations of the Sub-Contracted Suppliers.

608. Thereafter, this Section addresses issues associated with:

- Increasing the percentage coal extraction in existing NCE (and Sub-Contractor) mines;
- Longer-term implications of “new mine” development.

609. Finally, this Section summarises those recommendations and proposals for change that are either required by, or implicit in, the implementation of those areas listed above.

13.2 Key Technical Elements Addressed

610. Specific key technical and operational elements, at both NCE Directly Controlled Mines and at Sub-Contracted Supplier Mines, addressed in this Section are:

- Data Gathering and Evaluation (Mapping) of the Extant Situation;

- Requirement for Ventilation Improvement;
- Access Control of all Mine Workings;
- Operational Disciplines and Standard Practices;
- Strata (Roof) Control and Support.

611. Considerations of appropriate Supervisory and Control structures, while arguably forming part of the “Technical and Operational” sphere, have, for improved accessibility, been assigned to an individual section. (Ref: Section 14)

612. Thereafter, this Section addresses issues associated with:

- Increasing the percentage coal extraction in existing NCE (and Sub-Contractor) mines;
- Longer-term implications of “new mine” development.

NCE Directly Controlled Mines

Data Gathering and Extant Situation Mapping

613. Up-to-date and accurate mine maps are the most important technical management tool for any mine management team. Mine maps as currently in use at the extant NCE directly managed and controlled mines do not meet these requirements for either accuracy or currency. They depict the location of main access tunnels, but provide little detail about current and past extraction workings. Documentation regarding the location and nature of these workings is almost totally absent, and such knowledge as is retained is limited to anecdotal memory.

614. In addition to the absence of accurate maps showing the physical presence of both current and previous mine workings, there are, consequentially, no maps or plans providing details of the extant ventilation flow (if any) through the mine workings. Until such time as accurate and up-to-date ventilation maps are available (together with the respective physical topography maps) it is impossible to propose an optimal (or even adequate) ventilation system for any part of the existing mine workings.

615. Indeed, any attempt to modify the extant ventilation arrangements (inadequate though they may be) without having the prerequisite maps and having conducted an appropriate ventilation survey exposes the mine to the substantial risk of “making matters worse”. Given the prevalence of methane in the NCE mines, any such unplanned and inadequately analysed change to the existing ventilation arrangements presents the very real likelihood of “making matters worse” (if not actively dangerous).

It is strongly recommended that without delay, two key measures be undertaken at each of the NCE directly controlled and managed mines:

- *Firstly, that accurate and up-to-date mine plans be produced by a competent and qualified Mine Surveyor. These plans should include both current and*

disused (“old”) workings in sufficient detail as to allow for subsequent ventilation planning and confirmatory calculations;

- Secondly, that a comprehensive Ventilation Survey be undertaken at each directly controlled and managed mine of NCE. Such survey, should be conducted by a professionally qualified Mine Ventilation Engineer, equipped with the accurate and up-to-date mine plans (produced by a competent and qualified Mine Surveyor, as indicated above) will require the use of the appropriate technical equipment (e.g. Manometers, Barometers, Velocity Meters etc.) and will need to establish the full ventilation circuit, air speeds and air volumes through all main sections of each mine from Downcast Tunnel (fresh air intake) to the Upcast Tunnel (dirty air exhaust). Such survey will need to include a full 24-hour period (to allow for the effects of daily temperatures and weather conditions) and should be repeated at several regular intervals during a single 24-hour period in order to highlight changes in ventilation patterns.*

Ventilation - General Observations

616. A prerequisite for any modification to the existing ventilation arrangements at any of the NCE directly controlled and managed mines is to first complete an accurate and reliable “Ventilation Survey”. It is assumed that the compilation of such ventilation survey will be accompanied by the provision of corresponding “Mine Maps” (showing the presence, extent and dimensions of all accessible workings both currently operating and disused).

617. With reference to the Ventilation Survey and Mine Maps, at each of the directly controlled and managed NCE mines, the mine management team (actively assisted by the Mine Surveyor, Mine Ventilation Engineer and Mine Engineers) must then identify a practical (and cost effective) design that will allow the establishment of a “Primary Ventilation Circuit” for that mine.

618. The “Primary Ventilation Circuit” may be defined as the preferred route that the ventilating air (of an individual mine) will elect to follow in order to fully traverse the mine workings from “intake” (being the point at which fresh air first enters the mine from the surface) to “exhaust” (being the point at which ventilating air, having now traversed the mine workings – or part thereof – returns to the surface). Such preferred route being generally accomplished without the use of secondary (or auxiliary) fans positioned in the mine workings themselves, but facilitated by the construction (where appropriate) of all necessary walls, stoppings, barriers, air-doors, air-crossings and similar, together with the “sealing-off” (with air-tight stoppings) of any disused “old-workings”.

619. The point of fresh air intake from surface may, in the case of underground mines, be referred to as the “Downcast” (or, “Downcast Shaft”), while the point at which used, dirty air is returned to surface may be referred to as the “Upcast” (or, “Upcast Shaft”).

620. The Primary Ventilation Circuit is often considered as the “shortest route that the full volume of ventilating air of a mine can take to transition from Downcast to Upcast without being directly exposed to any source of contamination.

This Report very strongly recommends that all specific measures and details ultimately adopted by NCE for the realisation of an effective ventilation system (either in NCE’s directly controlled and managed mines or in the operations of Sub-

Contracted Suppliers to NCE) be fully incorporated into the previously recommended Technical Guidance Document(s) – “TDG” – that is to be used as the basis of both miner training and operational control.

Ventilation - Essential Features of Primary Ventilation Circuit

621. The establishment of a Primary Ventilation Circuit requires the existence (or creation) of two essential features:

- Two physically separated “pathways” (possibly shafts or tunnels) to function respectively as the Downcast and Upcast of the mine ventilating air;
- A “Motivator” (or “Driver”) to force the mine ventilating air to transition from Downcast to Upcast (thereby transiting the Primary Ventilation Circuit).

622. In regard to the aforementioned “pathways” it is generally accepted that the optimum solution is to provide two individual, physically segregated, shafts or tunnels to act as the “conduits” wherein the total volume of ventilating air can pass from surface to workings (in the case of the Downcast), or from workings to surface (in the case of the Upcast).

623. Such an arrangement, above, offers the advantages of:

- Second, separate “means of access” to the underground workings. If the two main airways (i.e. the Upcast and the Downcast) are separated by a significant margin (e.g. more than 30 meters at their closest point) then a highly secure alternative route for physical access to the underground workings is initiated for use in emergency. If the two main airways contain no interconnecting roadways, or providing that any such crosscuts are secured with appropriate air-doors and isolating features, then, even in the event of a major incident affecting one of the main airways, the second main airway will remain both accessible and useable;
- Dedicated airflow that permits miners to travel in wholly fresh, intake air and reduces (with appropriate selection of mineral haulage route) exposure to foul air, air-borne dust and fume.

624. It is noted that it is not impossible, by effecting “shared usage”, to employ a single physical structure (tunnel or shaft) as both the Upcast and Downcast pathways. This is commonly achieved either by the physical partitioning of the single, physical tunnel or shaft into two separate “compartments”, or by the installation of a ventilation duct or pipe (of significant diameter) into that single tunnel / shaft.

625. Such an arrangement, as above, does have disadvantages:

- The insertion of a ventilation duct or pipe into the single tunnel / shaft will occupy significant space, thereby reducing the amount of “free space” remaining for the movement of men, materials and mineral;
- The physical partitioning of the original single tunnel / shaft will, in addition to being difficult to effect reliably, similarly restrict the space available for transport needs;

- The provision of a “second means of egress”, which is absolutely essential in emergency situations, is not achieved.

Alternative Primary Ventilation Circuit Configurations

626. Once an overall design for the achievement of a Primary Ventilation Circuit has been identified, then it will be necessary for NCE mine to decide between the installations of:

- An “Exhaust Ventilation” system (in which the ventilating air is, literally, “pulled” through the underground workings by a Main Exhaust Fan. Such Main Fan being situated on the surface of the mine at the head (top) of the upcast shaft / tunnel; or
- A “Forcing Ventilation” system (in which the ventilating air is, literally, “pushed” through the underground workings of the mine by a Main Forcing Fan. Such Main Fan again being situated on the surface of the mine, but in this configuration positioned at the head (top) of the downcast shaft / tunnel.

627. Each of the two respective ventilation systems listed above has its own advantages and disadvantages.

Ventilation - Exhausting System Advantages:

- When main fan stops, underground pressure builds up to atmospheric. The increase in pressure slows gas emissions from the mineral resource and waste areas, prolonging the time required for the gas to reach active workings;
- The main, incoming haulage roads, where most travel is done, are kept free from dust, gas, and smoke. This permits the men to perform their work in fresh air;
- In the event of a fire or explosion, exhausting ventilation enables the rescue work to proceed more rapidly, because the fresh air is on the haulage road, which provides an easy route for carrying material and equipment to make mine repairs.

Ventilation - Exhausting System Disadvantages

- It reduces temperatures in the downcast shaft / tunnel, slope bottom, and main haulage line. During winter, the belt sprinkler system, damp coal on the belt rollers, and water lines along the haulage way can freeze. The temperature also is uncomfortable for the people working in these areas;
- It is more difficult to detect a fire in the workings since the contaminated air is carried directly to the return airways;
- Dust produced at the portals and along the haulage road contaminates the intake air stream. Similarly, fire in the main roadways / tunnels entries can be carried to the working areas;

- Contaminated air goes through the fan, corrosive particles settle on the fan blades and corrode them, reduces effective air passage area, and can throw the fan out of balance.

Ventilation - Forcing System Advantages

- It applies a continuously decreasing overpressure from the air intake portal to the discharge opening. This characteristic produces airflow from intake airways to the return and prevents contaminated flow into working areas from idle areas and return airways;
- The main access roads and upcast shaft / tunnel stay free from ice, making it more comfortable for the men in winter;
- A fire in any part of the mine is soon evident, due to leakage, to anybody working in the air current coming away from the face area;
- Only outside air, non-corrosive and with normal moisture content, goes through the fan;
- Fan unit is generally cheaper than an equivalent capacity Exhaust Fan.

Ventilation - Forcing System Disadvantages

- Products of combustion from a mine fire or explosion are carried into the neutral escape way. Thus, fire-fighting and rescue work are more difficult because access is often blocked by smoke. Ventilation reversal, in these cases, may endanger the men;
- Dust, smoke, and other impurities are carried away from the face area and along the haulage road. Methane tends to accumulate in pockets in the roof, sometimes causing slight explosions. Since neutral air flows away from working sections to the mine bottom, any accumulated air contaminants converge on workmen in the mine bottom area;
- Shock losses are greater. It requires a distance of 30 times the duct diameter away from the pressure jet for the air velocity to lose 90% of its original velocity. For an exhausting system, only one duct diameter distance is required to lose 90% of its velocity. As result, pressure loss caused by shock, which is in addition to frictional loss, is considerably more in a blowing system;
- Dirt and dust from outside will settle on the fan blades.

Ventilation - Primary Circuit Preference and Recommendation

628. While, in general, Exhaust Systems of ventilation are deemed more suitable for underground mines engaged in the extraction of gas-bearing mineral (such as coal), this Report concludes that – for entirely pragmatic reasons and considerations of feasibility (predominantly

the need to ensure a delivery of clean, fresh air to the deepest and most distant workings of each mine) – the mine management team would be justified in the selection of a Forcing System.

629. Notwithstanding the above comment, ***this Report expresses the preference for an Exhaust System of ventilation if the full Mine Ventilation Survey of an individual mine yields a viable configuration for the installation of an appropriate Exhaust System.***

Ventilation - Establishment of Adequate Secondary Ventilation

630. The establishment of an adequate Primary Ventilation Circuit is not, in itself, sufficient to provide adequate mine ventilation: The clean air available through the Primary Circuit must also be delivered – in sufficient quantities – to every working place in which miners are required to work.

631. This task of delivery (of clean air supplied through the Primary ventilation Circuit to each working place) is accomplished by the system of Secondary Ventilation established throughout the workings of each mine. Essentially, the primary purpose of the Secondary Ventilation network is to ensure that sufficient clean, fresh air is made available at all of the places in which it is required.

Ventilation - Recommendations concerning Secondary Ventilation

632. ***It is recommended that (once an adequate Primary Ventilation Circuit has been established in an NCE mine) suitable Secondary Ventilation should be achieved through the employment of individual, transportable Auxiliary Fans*** each connected to appropriate ventilation ducts (or pipes) designed to carry air from the Auxiliary Fan to the required point of discharge.

633. Effectively, each Auxiliary Fan is a small, easily re-locatable, Forcing Fan. For ease of use it is recommended that electrically powered Auxiliary Fans be used.

634. ***It is recommended that ventilation ducting (to carry fresh air close to all working places) should be extended to within ten (10) meters of the intended final point of application.***

635. ***It is further recommended that the siting of all Auxiliary fans, and the control and direction of the airflow in the drives and crosscuts around any such installation, be placed under the control of a qualified and competent Mine Ventilation Engineer.***

636. The UNICON Project Team is inordinately concerned that current practices regarding the siting of such Auxiliary Fans in-by of any Primary Ventilation circuit – and the absence of any adequately qualified supervision or control - are exposing NCE mines to increased risks from Methane explosion.

NCE Mine Management is strenuously urged to halt – with immediate effect – the practice of installing secondary (or Auxiliary) Fans in locations where the total airflow of clean air over the fan (as provided by the Primary Ventilation Circuit) is less than the volume of air passing through the fan itself.

Access Control at NCE Mines

637. While not directly affecting the operational performance of either a directly controlled and managed NCE mine, effective Access Control (of who enters the mine workings and who is present in those workings at any moment in time) is an essential part of both operational control and safety management.

638. ***It is the recommendation of this Report that appropriate systems for Access Control be identified and implemented without delay.***

639. ***It is recommended that, as a minimum requirement, every access point (either by shaft or tunnel) to the underground workings of each directly controlled and managed NCE mine should – at the surface – be securely fenced or gated.***

640. Such fences or gates should be of a robust nature, and of a design and construction that prevents casual passage thereby.

641. As appropriate to the requirements of each individual situation, the fences or gates should at all times either be:

- Securely and permanently fixed in position; or
- Securely fixed and secured by a locking mechanism; or
- Manned by a suitably trained and duly appointed person.

642. It is the responsibility of the “suitably trained and duly appointed person” (specified above) to ensure that any person entering into the mine workings (is):

- Authorised to do so;
- Complies with the Mine’s established procedures for entry;
- Has received the required training and information in safety matters;
- Equipped with and wears the required Personal protective Equipment (PPE);
- Not in possession of any forbidden / banned / prohibited item or contraband.

This Report strongly recommends that, at each (and every) permitted point of entry to the underground workings of a mine, appropriate signage be erected that alerts all persons attempting to make entry to those five points listed immediately above.

Similarly, this Report strongly recommends that, at every potential point of entry to the underground workings of the mine (that is not a permitted point of entry), in addition to such potential point of entry being securely fenced / gated and / or locked, suitable warning notices be erected. These warning notices should clearly state in all official languages (and pictorially) that entry is forbidden and unsafe.

643. It is the responsibility of the local Mine management to decide and implement a suitable “established procedure for entry” as referred to above. Such procedure, once agreed, should form part of the TGD (“Technical Guidance Document”) of that mine.

644. The “procedure for entry” need not be complex or complicated: In the past, mines have implemented a simple “tally” system for access control whereby each person authorised to enter the mine is issued with two identification tokens (each bearing the name or number of that person). On effecting entry to the underground workings of the mine each authorised person must hand one token to the authorised “gatekeeper”. The “gatekeeper” then places these collected tokens in a suitable rack or frame designed to provide speedy visual indication of “who” is currently in the underground workings, and “why / where” that authorised person is there.

645. The second token is held on the body of the authorised person. In the event of a catastrophic incident, this second token may be the only speedy way of identifying the body of that authorised person.

646. When each authorised person returns from the underground workings of the mine then the first token, previously given to the “gatekeeper”, is returned to that authorised person.

647. The basic system described (in principle) above can be easily modified (with expansion to three-token systems, and variations of exactly where / when individual tokens are transferred) to accommodate a very wide range of purposes. It will be the responsibility of individual mine managements to select and apply a system that is appropriate to local needs.

648. It is the recommendation of this Report that – whichever system is ultimately adopted – it is strongly advisable to initially implement a system that is as simple as possible (while still fulfilling the core requirements of the system) in order to maximise the likelihood of successful implementation and employee acceptance.

Strata Support in NCE Directly Controlled and Managed Mines

649. The mines directly controlled and managed by NCE, where any additional strata support (roof support) is employed, universally rely on (mainly) wooden timbering throughout the workings, with a very restricted amount of steel arch support restricted to the main access tunnels close to the surface brow.

650. This is in marked contrast to the situation in more modern coal mining environments where “roof bolting” has become the predominant method of providing systematic roof support.

651. The main technical advantages of roof bolting being:

- A systematic support that can be installed in close proximity to the working face;
- Unimpeded access and movement in the bolted roadway;
- Unexposed to the risk of damage or disturbance by face operations or moving equipment;
- Negligible air resistance, allowing improved ventilation flow;
- Reduced exposed surface area for coal dust accumulation (explosion risk reduction).

652. Economic advantages include:

- A reduction in the time required to support and load a place by 15-50%;
- Potential for widening rooms;
- Faster haulage without need to avoid props; and
- Reduced labour cost for roof support and material handling.

It is recommended that NCE mines adopt roof bolting as the primary means of providing supplementary strata control.

653. While roof bolting is commonly performed using dedicated machines that offer both high speeds of installation and improved operator protection (from roof falls), roof bolting can initially be performed using a combination of hand-held pneumatic-percussive drills (“jackhammers”) and pneumatic airlegs (together for the drilling of roof bolt placement holes), with installation being assisted with simple mechanical hand-held tools (“tensioners”).

654. The adoption of a systematic support system, as described above, will be easily achieved in NCE operated mines as the recommendation to progress to pneumatically powered tools (for coal winning) is implemented.

655. At a later stage, and where in-seam conditions permit, the process of roof bolt installation can be easily mechanised with the employment of bolting machines appropriate to local conditions.

656. Roof bolts can be a very effective and efficient means to provide systematic roof support, but only if sufficient bolts, following the optimal pattern, of the required length, are installed.

657. This report acknowledges that, in certain underground areas where either:

- roof conditions are poor; or
- long-term roof support of significant capability is required.

658. Then combinations of “meshing” (between and over installed roof bolts) or “shotcreting” (application of a “skin” of chemical modified concrete render on roof and side-walls) may be required.

It is recommended that a geotechnical study and analysis (of specific roof conditions and support capabilities) be undertaken to establish the optimal bolting pattern, bolt dimensions and bolt design.

Overall, it is recommended that – regardless of other developments – NCE controlled and managed mines adopt a system of roof bolting as the primary, permanent method of strata control.

Sub-Contracted Supplier Mines

Data Gathering & Extant Situation Mapping at SCS Mines

659. This Report does not propose that “Data Gathering and Extant Situation Mapping” be undertaken at each of the Sub-Contracted Supplier Operations to the same extent as is recommended for the NCE directly controlled and managed mines. This is for two main reasons:

- Firstly, the pragmatic difficulty (and excessive workload) that would result from attempting to conduct extensive and thorough inspections / measurement / analysis / recording at each Sub-Contracted Supplier Operation;
- Secondly, the more restricted physical size and operational complexity that each of the Sub-Contracted Supplier operations is likely to present.

660. However, should any individual Sub-Contracted Supplier operation be found to be of significant size or complexity, then the NCE Team would reserve the right (and, indeed, be expected) to implement a more comprehensive exercise of Data gathering and Situation Mapping than that applied to the smaller and simpler operations.

As a minimum, it is recommended that the NCE Team responsible for Sub-Contracted Supplier Operations would establish and formally report the following key elements of data at the initiation of such sub-contract.

661. It is recommended to identify and report for each SCS operation:

- Physical location (GPS co-ordinates) of each SCS (Sub-Contracted Supplier) operated shaft or tunnel offering access to the coal resource from the surface;
- Description of each shaft or tunnel (as above), noting size, orientation, formation / structure, support system;
- Indicative mapping of all underground tunnels and workings, identifying currently active workings;
- Descriptive of ventilation system (if any), highlighting air circulation direction and approximate quantities on the indicative map referred above;
- Descriptive of mining operations with specific reference to mining method employed, roof support practices, ventilation availability, number of underground (and surface) workers typically engaged;
- Representative production capacity (tonnage);
- Account of surface facilities and structures.

662. The above Data Gathering exercise by the NCE Team would be expected to form the basis of an appropriate Training and Capacity Building program, specifically drafted to meet the individual needs / requirements of the subject Sub-Contracted Supplier.

663. It is anticipated that, after completion of the initial inspections, data gathering and reporting in respect of the operations of each individual Sub-Contracted Supplier, the NCE Team would implement regular “follow-up” inspections and data-gathering exercises to further enhance

the information held in respect of each SCS and ensure that such information is current and representative.

664. ***It is recommended that such “follow-up” inspections are made at not-greater-than six monthly intervals (bi-annually).*** Reporting focus from the “follow-up” inspections being on changes and progress identified since the previous inspection, together with highlighted recommendations for future change and improvement.

Ventilation at Sub-Contracted Supplier Operations

665. This Report does not recommend that each Sub-Contracted Supplier (SCS) be required to establish a ventilation system at their individual mining operations that replicates the ventilation systems recommended for the NCE directly controlled and managed mines. More specifically, ventilation systems that have separate upcast and downcast shafts / tunnels, defined primary ventilation circuits, and secondary ventilation mechanisms (to ensure that fresh, clean air provided by the primary ventilation circuit is delivered to each place of work underground).

666. The reason that this Report does not recommend such action is that the significantly more restricted size and complexity of an individual SCS operation is unlikely to justify the expense and effort that such action would require.

667. However, if the workings of any SCS operation are adjudged to be of such size and complexity as to warrant the establishment of a ventilation system reflecting the principals of those recommended for NCE’s directly controlled and managed mines, then this Report holds that the NCE Team would have the right to recommend the installation of a more substantial ventilation system than that detailed below.

This Report does recommend that, as a minimum, each SCS operation in which the mine workings have advanced to more than 100m (in any place underground) from the surface, or, where four (4) or more workers are simultaneously present in the underground workings of that operation, a basic “forcing system” of ventilation be employed.

668. Such basic “forcing system” of ventilation is not envisaged to be more complex than the establishment of an Auxiliary Forcing Fan (on surface, adjacent to the main entry to the underground workings of the SCS operation), feeding clean fresh air into the mine workings through a continuous ventilation duct or pipe. Such duct or pipe being formed of flexible plastic or “PVC”, of between 400 and 600mm diameter, adequately supported throughout its length, and extending to within ten (10) meters of the intended final point of application (of the fresh air).

669. Effectively, the “forcing system” of ventilation recommended for the SCS operation (when required) is a replica of the basic Secondary Ventilation System proposed for use in NCE’s own directly managed and controlled mines (or in larger SCS mines).

Access Control at Sub-Contracted Supplier Operations

670. This Report recognises that the requirements for “Access Control” imposed on each Sub-Contracted Supplier, with due regard to the likely size and extent of that SCS operation, should be adjusted from those required of a directly controlled and managed NCE mine.

It is the recommendation of this Report, however, that the essential “core principals” with regard to Access Control of the requirements for an NCE mine, while applied with flexibility, should be respected.

Namely:

- *An effective system to record and inform the presence of any person in the underground workings of that SCS operation;*
- *The secure closure of any access point (either shaft or tunnel) into those underground workings (either active or disused) when not in current use;*
- *The installation of appropriate “Warning” / “Danger” and “No Entry” signs at all access points (both active and disused).*

671. The chosen system to record the presence of any person in the underground workings of an SCS’s operation can be very simple: A “blackboard” (or “whiteboard”) bearing the names of all persons authorised to be underground can be placed at the recognised entry point to those underground workings. The board can then be annotated (“marked”) as appropriate when persons either enter or leave the workings.

It is recommended that – as part of the initial “Data Gathering” exercise undertaken by the NCE Team at the initiation of each Sub-Contracted Supplier’s formal relationship with NCE – the SCS should be obliged to identify all such entry points (both active and disused) known to them, and to inform the NCE representative thereof.

In respect to “signage” and warning notices, because of the common nature of the signs that will be required, it is recommended that NCE take responsibility for procuring sufficient quantity of such signs, which can then be issued to each SCS (probably “free of charge”, or at minimal cost).

Strata Support in Sub-Contracted Supplier Operations

672. From observations and inspections made during the “Assessment” phase of the project, supported by considerable anecdotal evidence, it is held that supplementary Roof Support in independent mines is either entirely absent or extremely precarious. Where supplementary Roof Support is attempted the approach is not “systematic”, but “ad hoc”.

673. Such supplementary Roof Support - as is attempted – employs occasional timbers, installed as single vertical props under areas of roof deemed “suspect”.

674. Wooden timbering is a proven method of roof support in many coal mines, employing simple extraction methodologies, around the world. It (wooden timbering) is relatively simple to install, normally cost effective (provided suitable timber is available), and demands very basic skills and equipment to apply.

It is recommended that wooden timbering be the preferred (and required) system of roof support in the operations of all Sub-Contracted Suppliers (of coal to NCE).

However, it is recognised that the miners engaged in the SCS operations will require suitable training in the correct methods of installing wooden timbering.

It is the recommendation of this Report that training and guidance for the basic skills and knowledge appropriate to a simple (but effective) wooden timbering supplementary Roof Support system at each Sub-Contracted Supplier operation will be a core element of the training and capacity building offered to the SCS by the NCE support team.

675. Indicative principles of good Wooden Timbering Practice for use in Sub-Contracted Supplier operations:

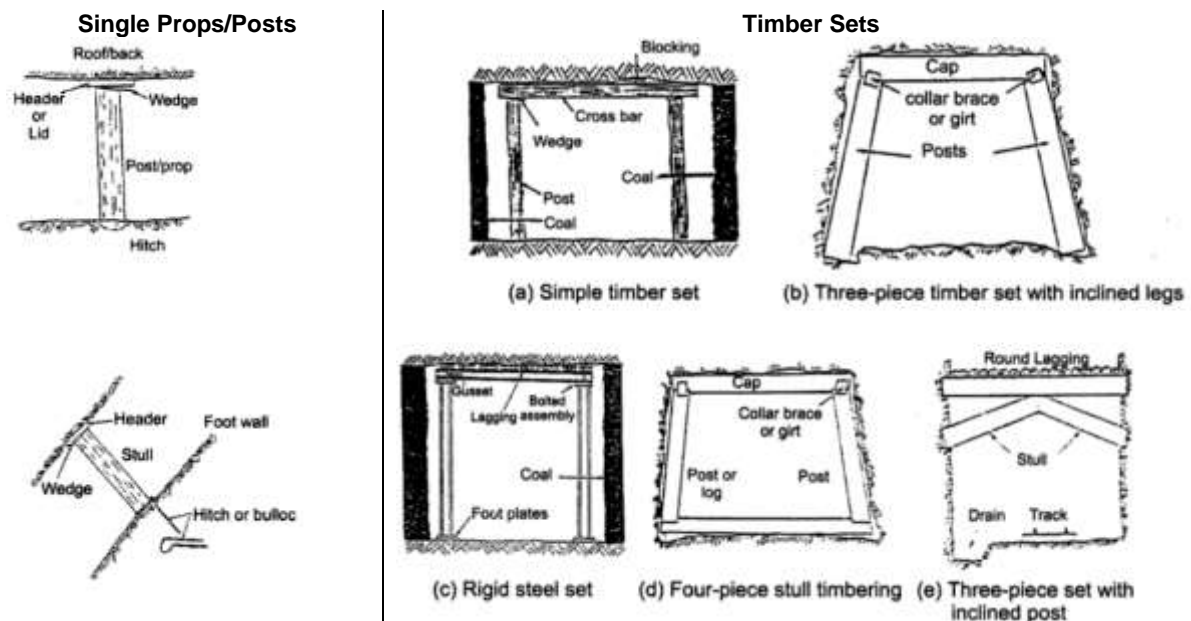


Figure 1. Proper wooden timbering

676. Square timbering with vertical posts (e.g. (a) or (c) in the figure above) is mandatory in extraction areas which are under vertical pressure only. Inclined posts (e.g. (b) or (d) in the figure above) is recommended in tunnels where horizontal pressure is expected.

677. An essential part of training in proper timbering techniques has to be that - even before timber sets can be installed, i.e. during manual loading - a temporary "Safety Post" must always be set. Such safety props can be reused multiple times and therefore do not add significantly to costs, but can reduce rock fall accidents by more than 80%.



678. ***It is recommended that NCE bear responsibility for the supply of wood for timbering.*** In those mining areas close to NCE operated mines, and where good timber is not readily available at local markets, NCE needs to take on the role of supplying wood for timbering. Sub-contracted Suppliers should be entitled to buy good timber at NCE mines at cost. Unavailability of timber must cease to be a legitimate excuse for inadequate roof support and related accidents.

13.3 Proposed Revision of Mining Method (Short-term)

Revision of Mining Methods (NCE directly controlled and managed mines)

679. As a consequence of the unfavourable formation and geological characteristics of the coal seams currently exploited by the directly controlled and managed NCE mines it is not feasible to implement a more modern, fully mechanised mining method in the current workings.

680. ***It is recommended, however, that the NCE mines follow a more “evolutionary” route*** to realise improved mining methods: Starting from the –essentially – manual mining methods of the current mining operations, then progressing to semi-mechanised methods, and in the longer-term (once more amenable coal resources are identified) to fully mechanised methods.

681. This Report opines that the way forward for NCE’s mines is to motivate technical evolution of the mining sector, by rapidly advancing from predominantly manual mining operations towards semi-mechanisation that would in the long term allow for progressing towards full mechanisation.

It is proposed that, as an initial step towards a more mechanised mining method, NCE mines move from a predominantly manual (“hand-got”) approach to one in which the actual task of winning coal from the coal-face is achieved not by human muscle power alone, but by miners equipped with powered hand-tools.

682. It is not proposed that the basic mining system currently followed (effectively a “line-of-sight” mining system in which miners endeavour to extract that coal which is immediately visible to them) be changed during this first, initial step.

683. ***Changes required during this initial step will require that miners be provided with simple powered hand-tools.*** This will result in gains in productivity and efficiency. Past experience, and that in other regions world-wide, indicates that a typical “basic face-mining team” (usually of some 3-5 miners) is able to increase their overall output tonnage (measured in terms of tonnes per face-mining team member per shift) by more than 50% (often achieving more than 100% increase subject to local conditions).

684. The powered hand-tools provided to the face-mining team need consist of no more than:

- Rotary-percussive hammer drills (often termed “Jackhammers”);
- Extending pneumatic air-legs (support of weight of the drill / provide forward thrust);
- Tungsten-carbide tipped drill rods and chisel bits.

It is recommended that, provided an adequate ventilation circuit is established, the above powered hand-tools should be pneumatically fed (compressed air) by moveable air compression units (electrically powered) located not further than 100 metres from the work place.

685. A pneumatic/compressed air system has been recommended – despite its relatively higher capital cost and higher cost of maintenance – primarily because of:

- Its intrinsic safety in gas producing coal seams;

- Its ability to deliver supplementary air flow to the exact place of work.

686. Typically, a modern design, electrically powered mobile air compressor of nominal 20kW capacity that has been regulated to produce compressed air at a pressure of 10-15 bar, should be able to support the operation of three (3) jackhammer-airleg combinations. This (a 20kW unit) is generally considered as a very small capacity compressor (in mining environments), and mobile compressor units of 100kW and more are commonly in use.

It is recommended that, having due regard to the Mine Plan (of any individual NCE directly controlled and managed mine) and the availability of working places, local mine management should decide on the optimal configuration of mobile air compressors (larger size with smaller quantity, or smaller size with greater quantity).

687. Ultimately, if local mine management has sufficient confidence in the coal resource available to be mined (its quantity and conformation), management may decide that local conditions would justify the installation of a single large surface positioned air compressor feeding compressed air into the mine workings through a network of steel pipes.

688. Such installation (i.e. single, large, surface positioned air compressor) offers the advantages, in comparison with multiple smaller mobile underground compressors, of both operating cost and performance efficiency. However, such installation is physically demanding to install and requires certainty of suitability. It does, however, offer the further option of being diesel powered rather than electrically driven.

689. In a coal winning environment, in contrast to mining of hard-rock, the use of airlegs-jackhammers- chisel bit combinations does not require a supply of pressured water feeding the tools. Compressed-air powered tools require no cooling, and the breaking of coal does not require water for flushing of the drill stem.

However, it is recommended that a supply of water at adequate pressure and volume be provided to all working faces and in all places in which men are required to work or travel. This water supply is needed to provide a means of dust suppression, and, in emergency for fire-fighting.

It is recommended that a main water reservoir and pump be established on surface (convenient to the main access shaft or tunnel) at each NCE controlled and managed mine.

690. This water is then delivered underground and throughout the workings, to within 100metres of each working place, by steel pipes. Pipes of 100-150mm in diameter are commonly employed for this purpose, and the smaller (100mm diameter) pipe is expected to be sufficient for the requirements of the NCE mines.

691. Flexible pipes and hoses (which are readily installed, moved and relocated), of a smaller diameter (50-100mm) can then be used to make water available from the end of the steel pipe network to the final place of use.

It is recommended that, in addition to powered hand-tools, each face mining team be provided with all essential manual tools (as a minimum, roof-bars, picks, shovels, sledge-hammers, adjustable spanners, coal wedges, and straining wire) and a supply

of, manually installed “Accro Props” (or, “Screw Jacks”). These lastly being essential for the speedy installation of temporary roof support until more permanent timber supports are in place.

13.4 Increasing Percentage Extraction (Longer-term)

692. It is proposed that, as a supplementary step following the adoption of powered hand-tools, the NCE controlled and managed mines should attempt to establish a basic “short-wall” mining system.

693. This change, unlike the adoption of powered hand-tools, represents an actual modification – a significant one – to the prevailing mining system employed.

694. A short-wall system is based on the creation of two parallel drives (or tunnels) which are then linked by the creation of a “cross-cut” tunnel between the furthest points on the two original parallel drives. This cross-cut tunnel becomes the “mining face” of the short-wall system as the side wall of that cross-cut tunnel is progressively mined, the mining-face (the “short-wall” of the method) retreating back through the panel of coal delineated by the two original parallel drives as coal is extracted.

695. The “short-wall” (or “mining face”) can be of varying lengths governed by the distance separating the two original parallel drives. Heavily influenced by local conditions and in-seam coal conformation, it is normal practice for the short-wall, itself, to be of the order of 20-50 meters in length. A short-wall is required to be “short” because its effective speed of retreat (along the coal panel defined by the two original drives) needs to be high. (This is because 100% extraction of the coal in the delineated panel will be extracted, leaving the roof to eventually collapse behind the retreating mining face).

696. For illustrative purposes, a 40metre long Short-wall, in a two (2) meter thick coal seam, advancing at two (2) meters per day will produce some 160 cubic metres of coal each day, representing some 400 tonnes of coal per Short-wall per day.

697. The short-wall mining face, itself, would probably be divided into separate “stalls” (or sections) each stall being worked by a separate mining crew (5-6 miners). Individual stalls are commonly some 4-5 metres in width, meaning that approximately eight (8) crews will be engaged on a single short-wall at any time.

698. It is good practice to “stagger” the line of the retreating stalls to ensure that a single, full-length roof fracture line is never created. Often a displacement of 1-2 metres between stalls is targeted.

699. It is entirely possible to manually load the broken coal from the mining face of each stall, but mine management should seriously consider the use of either:

- A scraper winch system to pull the broken coal (after hand lashing from the mining face) along the full length of the short-wall to a point in one of the two parallel access drives that delineate the short-wall panel (where the coal can be loaded in rail cars);
- A floor mounted belt conveyor system. Fitted with a rear catchment-plate, broken coal can be hand loaded from the mining face directly onto the conveyor which runs

the full length of the short-wall before depositing the broken coal at a loading point in one of the two parallel access drives delineating the short-wall panel.

700. It is generally advisable to extract short-wall panels in a retreating sequence: Starting with those panels furthest away from the main access shaft and tunnels of the mine, and progressively moving towards them. This is because of proven advantage of moving away from (and not being required to work or travel under) “collapsed ground”. The traditional mining adage that “It is better to head away from known problems, than to move towards them” is sound advice for any short-wall system.

701. It is noted that the retreating “mining stalls” of the short-wall system will – for safety – demand the installation of secondary support while mining and loading of the individual stalls is performed. However, ultimately the roof strata must be allowed to collapse behind the retreating mining faces. This requirement means that the secondary support installed must be of a temporary nature and not obstruct the planned caving process. For this reason a timber support system (rather than a roof-bolted one) is recommended. Lines of timber supports can be sequentially removed as the mining face retreats, leaving sufficient lines of timber to support and protect the face itself, but not preventing the planned caving process.

702. The greatest challenge to be overcome in NCE’s adoption of a short-wall mining system is that posed by the absence of adequate “fore-knowledge” of in-seam conformation or configuration. While mine engineers and managers at the NCE mines may have an impression of what lies ahead of any individual mining face, the reality is that – in the absence of any exploratory drilling or mapping work – these impressions are, at best, only estimations and guesses.

703. This absence of advance knowledge can be partially overcome, if a short-wall mining system is adopted, by using the process of creating potential access drives and cross-cuts to provide information regarding surrounding conditions. If an initial framework of such drives and cross-cuts, following a rectilinear pattern is established across both dimensions of a selected coal block then, although some efforts may prove futile, the balance is to provide good information regarding conditions within the block and between the individual drives and tunnels.

13.5 New Mine Development

704. *It is recommended that longer-term advancement of NCE be directed toward new mine development.*

705. From a long-term or “strategic” perspective, if a primary objective of the NCE and the MoMP is to achieve greater safety, reduced accidents, higher volumes of production, lower unit costs for that production, and improved standards during the performance of that production, then consideration must be given to the identification, development and exploitation of a coal resource (or, possibly, coal resources) that, with due regard to their structure, morphology and conformity, more readily lend themselves to a more modern and sophisticated mining methodology.

706. Effectively, there is an urgent need to locate and confirm a coal resource that is of sufficient size and amenable to extraction by modern mining methods.

Key Metrics of a Suitable Coal Resource

707. For an “underground” mining approach, some of the primary considerations will be:

- A seam of not less than 1.8 meters thickness, with minimal variation of thickness;
- A seam that is predominantly horizontal, without areas of excessive gradients;
- A seam that contains at least 150 million tons of mineable coal reserve;
- A seam that has easy access from the surface, or is at an average depth below surface that does not exceed 150m;
- A seam that is free from high levels of methane and other contaminant gases;
- A seam that is undisturbed by faults, distortions, intrusions and similar geological anomalies;
- A surface topography that readily lends itself to the establishment of the required mine infrastructure.

708. For an “open pit” or surface mining approach similar considerations will apply:

- A seam of not less than 1.8 metres thickness (for efficiency and ease of extraction) offering an overall stripping ratio of less than 10:1, with minimal variation of thickness;
- A seam that is predominantly horizontal, without areas of excessive gradients;
- A seam that contains at least 150 million tons of mineable coal reserve;
- A seam that has easy access from the surface, and is at an average depth below surface that does not exceed 80m;
- A seam that is undisturbed by faults, distortions, intrusions and similar geological anomalies;
- A surface topography that readily lends itself to the establishment of the required mine infrastructure.

709. In both cases, above, the suggested requirement of a coal resource containing at least 150 million tons of mineable (extractable) clean coal has been selected in order to provide a coal block of sufficient size to supply a medium sized, coal-fired, electricity generating station for a minimum of 20 years.

Note for reference: *In order to establish an “order of magnitude” for what constitutes a “suitable coal block” for further exploitation, a Coal-Fired, Electricity Generating, Power Station (of modern construction and reasonable efficiency) capable of producing 800 - 1,000 Megawatts of electricity per annum (i.e. a modestly sized unit) will require an in-feed of some 5-6 million tonnes of coal per annum (depending on the exact chemical composition of the in-feed coal and its raw energy content). This suggests that, to support an Electricity Generating Power Station for a 30 year*

| operating life, an extractable coal resource of some 150-200 million tonnes of coal is needed. |

710. None of the above parameters for a “suitable coal resource” is fixed (indeed it is rare to uncover the perfect mineral resource for mining), as compromise and balance are always required. However, a “close match” to most of the primary considerations will substantially increase the possibility that an individual coal resource could prove to be a “viable prospect” for exploitation.

711. *Whilst it can be surmised with a measure of certainty that such coal resource will probably exist, currently, there is no firm knowledge of the existence and specific nature of any such COAL BLOCKS in any region / province of Afghanistan.*

Requirement for Geological Exploration

712. While the existence of suitable coal reserves is implied by occurrences elsewhere in the wider sub-continental landmass, and postulated (by many Geologists) on the basis of “probability” and “likelihood”, there is no firm and detailed evidence of the existence of such reserves in Afghanistan itself.

713. It is for the above reason that ***this report proposes a strategy in which a fundamental element is the use of some of the monetary revenues generated by the “Reformed and Restructured” NCE to create an “Exploration Fund”.*** This “Exploration Fund” being used to finance the creation of an appropriate “Coal Resource Exploration Department”, and meet the costs of operating this function.

714. In general terms, it seems, with the information that is currently available, probable that the majority of coal resources that will identified in Afghanistan will contain “Middle Ranking” grades of coal (best described as “Thermal Coal” or “Steam Coal”) suitable only for domestic (household) use or Electrical Power Generation.

715. It is possible, however, that exploration may uncover a coal resource comprising coals with a “Coking” or “Metallurgical” suitability (dependant on their specific chemical compositions). Such coals will command a “Market Premium” being highly demanded both in global markets and, possibly, for internal domestic use to support iron and steel production.

716. However, suitable coals have first to be found and identified. As soon as Coal Blocks with the potential for further exploitation are located and identified, each must be sampled and chemically analysed to determine the grade and composition of the coal therein.

Selection of a Long-Term Mining Method

717. All of the commonly employed modern coal mining methodologies have the potential to be extremely efficient and effective if they are correctly operated. Equally, all of the modern coal mining methodologies have the potential to be suitable for a future Afghanistan coal mining industry.

718. Which specific mining methodology would be appropriate for a particular coal block is entirely dependent on the specific nature, characteristics and physical formation of that coal block. It is not possible to be more specific regarding the selection of a recommended mining method until that information is known.

719. The reality is that some coal mining methodologies (mining systems) are more demanding than others in respect of the levels of Management and Operational Competence needed to achieve production outputs (tonnes of coal) that approach their theoretical maxima.

720. For example: “opencast” (or “Surface”) mining systems (where characteristics of the coal block permits the application of such methodology) is relatively simple to learn and implement, and offering low operating costs (while being, however, generally expensive in capital costs to establish).

721. By contrast: A modern, underground “Longwall” mining system – while (in appropriate geological conditions) having the potential to be hugely productive (thousands of tons per hour being possible from a single, operating, longwall face) – is extremely demanding of the operator skill levels, technical abilities and operational expertise. Global experience has shown that it may take several years of “hands-on”, practical experience for a novice workforce to master the skills needed to bring the production levels of a longwall face to those approaching its theoretical maximum.

722. Alternatively: A modern, underground, “Continuous Miner” equipped, “Room and Pillar” mining system – while less productive than a longwall system – is also much less demanding of operator / management skill levels. While it may take several years to master the effective operation of a longwall face, mastery of “Continuous Miner” operations has regularly been achieved in several months.

723. This Report has recommended the adoption (in the short-term) of a manually worked, “short-wall” mining system. The principles and disciplines underpinning such Short-wall system are readily adapted and extended into a mining methodology employing Continuous Miner extraction (where geological and in-seam conditions permit).

It is recommended that - if a coal resource amenable to underground mining is identified – that a mining system based on Short-wall methodology, and employing Continuous Miners, be installed.

New Mine Development - Conclusion

724. It seems clear that a logical (and sequential) “plan of action” (or “Way Forward”) is needed to realise the key long-term objective that is formulated in this report’s Proposed Strategy for the Reform and Restructure of NCE.

725. The key steps of this plan of action, as elaborated throughout this report, would include the following:

- Creation of a financial resource (“Coal Exploration Fund”);
- Initiation of an Exploration Program;
- Coal Identification & Analysis;
- Market Opportunity Evaluation (for the Coal Resource identified);
- Mining Method Selection;

- Project Financial Assessment;
- Project Feasibility Study;
- Project Technical Design and Specification;
- Contracts and Sourcing;
- Project Implementation;
- Staff Selection, Development & Training.

726. At this early stage, the above is not a comprehensive or definitive list – much work is still needed. Equally, the sequential form of the list is not intended to suggest a rigid “formality” to the timing or phasing of the individual activities – there will be much opportunity for “overlap” and the need for frequent review of initial conclusions as additional information becomes available.

727. The detailed requirements of each of the above “activities” demands sufficient time in which to be identified, developed and specified. However, with the necessary resources (principally people) this can be done.

728. This report fully acknowledges the demands of the transformation of a “Possible” Mineral Resource into a functioning reality. The report is fully aware of the work that is needed to successfully achieve this program and all of its key “Stages”, namely:

- Mineral Resource Identification;
- Conceptual Assessment and Pre-Feasibility Study;
- Feasibility Study;
- Detailed Design & Specification;
- Contract Development & Award;
- Project Implementation;
- Delivery.

729. The work that is required is, by no means, trivial – but, it is without any question achievable if there is a strong commitment to the goals of the program.

New Mine Development - Recommendations

730. In respect of new mine identification and development, this report offers the following recommendations to facilitate the achievement of the objectives associated with the strategy proposed herein.

1. Assign a suitably qualified and experienced member of the AGS (Afghan Geological Survey) who has excellent knowledge of the Afghanistan geological environment to work directly with a selected senior Mining Engineer from NCE, and the team forming the NCE Coal Exploration Department. Together these experts, supported any additional resources as may be deemed necessary, will seek to either:
 - Confirm the absence of knowledge regarding suitable, potential coal “blocks”; or
 - Identify potential priority areas for exploitation or further investigation.
2. As proposed in, and consequent to, Recommendation 1 (above) - If there is an intention to develop the coal exploitation opportunities of Afghanistan, then, for the potential priority areas for exploitation or further investigation identified, establish (to a reasonable level of confidence):
 - The location of the potential Coal Block resources;
 - The size of these Coal Blocks;
 - The nature, composition and characteristics of these Coal Blocks;
 - The geological and geophysical circumstances of each Coal Block.
3. Having confirmed the current situation, the team member assigned from the AGS (or other suitably competent person) should be formally appointed to develop an appropriate program for the additional “in field” exploration that is required to provide the missing information identified from the preceding “data gap analysis” exercise;
4. While the search to locate and identify suitable coal blocks is initiated, reliable COAL ANALYSIS LABORATORIES must be identified and arrangements made to perform the full range of “raw coal” analytical tests to definitively establish the grade and composition of the coal samples drawn therefrom.

13.6 Technical Considerations: Summary Conclusions and Recommendations

Data Gathering and Situation Confirmation

731. It is recommended that, two key measures be undertaken without delay at each of the NCE directly controlled and managed mines:

- Firstly, that accurate and up-to-date mine plans (including both current and disused workings be produced by a competent and qualified Mine Surveyor;
- Secondly, that a comprehensive Ventilation Survey be undertaken. Such survey, should be conducted by a professionally qualified Mine Ventilation Engineer.

732. Further, it is recommended that an on-going process of data collection be implemented in respect of each Sub-Contracted Suppliers engaged. Encompassing:

- Physical location (GPS co-ordinates) of each SCS (Sub-Contracted Supplier) operated shaft or tunnel offering access to the coal resource from the surface;
- Description of each shaft or tunnel (as above), noting size, orientation, formation / structure, support system;
- Indicative mapping of all underground tunnels and workings, identifying currently active workings;
- Descriptive of ventilation system (if any), highlighting air circulation direction and approximate quantities on the indicative map referred above;
- Descriptive of mining operations with specific reference to mining method employed, roof support practices, ventilation availability, number of underground (and surface) workers typically engaged;
- Representative production capacity (tonnage);
- Account of surface facilities and structures.

Establishment of Technical Guidance Document and Reporting Logs

733. It is recommended that without delay, an adequate “Technical Guidance Document” be created in support of an effective “Supervisory Structure” and effective mining practices at both NCE directly controlled and managed mines and at those of Sub-Contracted Suppliers.

Ventilation Systems

734. This Report very strongly recommends that all measures and procedures adopted by NCE to provide effective ventilation system be incorporated into the recommended Technical Guidance Document.

735. It is recommended that urgent priority be given to establishing an adequate Primary Ventilation Circuit at each NCE mine.

736. Once an adequate Primary Ventilation Circuit has been established, it is recommended that suitable Secondary Ventilation should be provided using individual, transportable Auxiliary Fans.

737. It is recommended that the siting of all Auxiliary Fans, and the control and direction of the airflow in the drives and crosscuts around any such installation, be placed under the control of a qualified and competent Mine Ventilation Engineer.

738. NCE Mine Management is strenuously urged to halt – with immediate effect – the practice of installing Auxiliary Fans in locations where the total airflow of clean air over the fan (as provided by the Primary Ventilation Circuit) is less than the volume of air passing through the fan.

739. This Report does not recommend that Sub-Contracted Suppliers be required to establish a ventilation system that replicates the ventilation systems recommended for the NCE directly controlled and managed mines. However, this Report does recommend that, as a minimum, where the mine workings have advanced to more than 100m (in any place underground) from the surface, or, where four (4) or more workers are simultaneously present in the underground workings of that operation, a basic “forcing system” of ventilation be employed.

Access Control (to Mine Workings)

740. It is recommended that systems for Access Control be identified and implemented without delay.

741. It is recommended that every access point (either by shaft or tunnel) to the underground workings of each directly controlled and managed NCE mine should – at the surface – be securely guarded, fenced or gated.

742. At each permitted point of entry to the underground workings, signage be erected that alerts all persons to the restriction on entry and the hazards.

743. It is strongly recommended that, at every potential point of entry to the underground workings of the mine (that is not a permitted point of entry), in addition to such potential point of entry being securely fenced / gated and / or locked, suitable warning notices be erected.

744. It is recommended that – as part of the initial “Data Gathering” exercise undertaken by the NCE Team with each Sub-Contracted Supplier – the SCS should be obliged to identify all such entry points (both active and disused) known to them, and to inform the NCE representative thereof.

745. It is recommended that NCE take responsibility for procuring sufficient quantity of such signs, to then be issued to each SCS.

Establishment of Supervisory Structures

746. It is strongly recommended that each NCE controlled mine establish a formal Supervisory Structure appropriate to its local requirements. Such structure must include supervisory staff from mining operations, mechanical/electrical engineering and maintenance disciplines.

747. It is recommended that Sub-Contracted Suppliers be advised to implement a supervisory structure which is both appropriate and commensurate with the operation of that Sub-Contracted Supplier.

748. It is recommended that, without delay, an appropriate number of Shiftbosses (or, “Area Team Leaders”) be appointed at each NCE mine. It is recommended that, in order to adequately fulfil his responsibilities, each Shiftboss receive training in practical aspects of (and be experienced in):

- Gas detection (especially Methane);
- Ventilation practices and requirements;

- Safe strata (roof) control;
- Working place “housekeeping” (cleaning);
- Machine- and hand-tool usage;
- Correct (standard) coal extraction methodology.

749. It is recommended that an appropriate “Team Leader’s Shift Report” be designed and implemented without delay.

Roof Support and Strata Control

750. It is recommended that, other than in circumstances of special need, NCE mines adopt roof bolting as the primary means of providing supplementary strata control (roof support). In consequence of this, it is recommended that a geotechnical study and analysis (of specific roof conditions and support capabilities) be undertaken to establish the optimal bolting pattern, bolt dimensions and bolt design.

751. It is recommended that wooden timbering be the preferred (and required) system of roof support in the operations of all Sub-Contracted Suppliers.

752. It is the recommendation of this Report that training and guidance for the basic skills and knowledge appropriate to a simple (but effective) wooden timbering supplementary Roof Support system at each Sub-Contracted Supplier operation will be a core element of the training and capacity building offered to the SCS

753. It is recommended that NCE bear responsibility for the supply of wood for timbering.

Improved Mining Systems

754. It is proposed that NCE mines move from a predominantly manual (“hand-got”) approach to one in which the actual task of winning coal from the coal-face is achieved by miners equipped with powered hand-tools.

755. It is recommended that, once adequate ventilation is established, the above powered hand-tools should be pneumatically fed (compressed air) by moveable air compression units (electrically powered) installed not further than 100 metres from the work place.

756. It is recommended that, having due regard to the Mine Plan (of any individual NCE directly controlled and managed mine) and the availability of working places, local mine management should decide on the optimal configuration of mobile air compressors.

757. It is further recommended that, in addition to powered hand-tools, each face mining team be provided with all essential manual tools (as a minimum, roof-bars, picks, shovels, sledge-hammers, adjustable spanners, coal wedges, and straining wire) and a supply of, manually installed “Accro Props” (or, “Screw Jacks”).

Water Supply

758. It is recommended that a supply of water at adequate pressure and volume be provided to all working faces and in all places in which men are required to work or travel.

759. It is recommended that a main water reservoir and pump be established on surface (convenient to the main access shaft or tunnel) at each NCE controlled and managed mine.

Development of Mining Systems

760. While it is recommended that longer-term advancement of NCE be directed toward new mine development (in which more modern mining systems can be employed), it is proposed that in the “short-term”, as a supplementary step following the adoption of powered hand-tools, the NCE controlled and managed mines attempt to establish a basic “short-wall” mining system.

761. It is recommended that - once a coal resource amenable to more modern underground mining is identified – that a mining system based on Short-wall methodology, and employing Continuous Miners, be installed.

14 Supervisory Structure and Management Considerations

14.1 Supervisory Structure – An Introduction

762. In order to establish an effective “Supervisory Structure” at those mines directly controlled and managed by NCE it is important to first recognise several salient features of the situation:

763. This Report further recognises that the requirements for an effective “Supervisory Structure” appropriate at each Sub-Contracted Supplier’s operation, with due regard to the likely size and extent of that SCS operation, will differ from those appropriate at a directly controlled and managed NCE mine.

764. It is acknowledge that each “Supervisory Structure” that is effected – whether at an NCE directly controlled and managed mine, or, possibly, at an operation of a Sub-Contracted Supplier – must allow sufficient flexibility to accommodate both local requirements and the skills / abilities / capacities of available staff.

765. This Report fully accepts that it will be inappropriate to attempt to apply a “One size, fits all” solution to the universal need to realise an effective “Supervisory Structure” at each coal mining operation.

766. Ultimately, the key requirement of any “Supervisory Structure” is that it be “Fit for Purpose” and that it achieves and delivers, reliably, those requirements placed upon it.

14.2 Defining a “Supervisory Structure”

767. Commentators have applied many different names and titles to the arrangements established in an organisation to achieve that organisation’s desired results and objectives though the channel of its prime resource: Its people.

768. Military organisations often refer to these arrangements as the “Chain of Command” or “Control Structure”. While such terms may be inappropriate in a commercially focussed organisation – where management must operate in a more persuasive and co-operative fashion to achieve optimal results from the human resources available to it – nonetheless, a mining environment does offer some legitimate parallels to those in which “Command” and “Control” are effective methodologies.

769. A mining environment is one where, for reasons of health and safety (above all else), any individual employee is **not** free to work / perform in the manner that they, individually, feel to be appropriate.

770. In the interests of group safety, it is essential that all individuals perform their assigned tasks in exact compliance with standards and methodologies that have been identified as “optimal solutions”.

771. Similarly, all mining environments are – for reasons beyond any human control – potentially dangerous. For this reason it is essential that those practices, procedures and methods that have been selected as offering minimum risk are universally applied.

772. Mining is performed with one basic, operational core objective that underpins all other objectives (or, from which, all other objectives are derived): To remove mineral from the earth. The “Supervisory Structure” that is effected at any mining operation must, therefore, be adequate to achieve this core objective while ensuring that the mechanisms (by which it is achieved) fully comply with those standards, procedures and methods that have been duly chosen.

773. Effectively, a “Supervisory Structure” – in a mining environment – can be defined as:

774. “The organisation and empowerment of a structured system (of men) to plan, organise and control the application of effort and resources to achieve specific, defined objectives while ensuring compliance with established norms and standards for performance”.

14.3 Purposes and Objectives of a Mining Supervisory Structure

775. In a mining environment, the selected Supervisory Structure, at each level in that structure, must be able to effectively perform the following functions:

- Identify the objectives that are to be achieved;
- Establish a plan of action whereby those objectives can be achieved;
- Organise the subordinate level (of employees) to fulfil their responsibilities;
- Instruct and train the subordinate level in the correct performance of their responsibilities;
- Provide the resources needed by the subordinate level to perform their responsibilities;
- Monitor and evaluate the subordinate level in the performance of their responsibilities;
- Formulate and implement corrective action in response deviations from plan or standard;
- Report and account for performance / event attainment.

776. A commonly used acronym to summarise both the Supervisory and Management functions is **P.O.L.C.C** (“POLCC”):

- **P – Plan** what has to be done (to achieve the desired objective);
- **O – Organise** the resources available (to implement the plan);
- **L – Lead** the resources (through the implementation of the plan);

- **C – Control** (how the implementation is being performed);
- **C – Communicate** (both “up” and “down”, identifying Corrections as needed).

14.4 Common Requirements of an Effective “Supervisory Structure”

777. The function of an effective (and efficient) Supervisory Structure can be likened to a pipeline or conduit: But a pipeline or conduit in which the flow of “material” is simultaneously in both directions: Both “up” and “down” (the organisation in question).

778. The “material” that is being transported through this Managerial and Supervisory “pipeline” is a combination of information and instruction.

779. Flowing “down” the information and instruction “pipeline” are the requirements of:

- What has to be done;
- Why it has to be done;
- Who has to do it;
- How it is to be done;
- When it is to be done;
- Where it is to be done.

780. Flowing “up” the information and instruction “pipeline” are, the responses / answers to the aforementioned “down flows”. For example:

- What was done / achieved?
- Who has done it?
- How was it done?
- When was it done?
- Where was it done?

781. And, as a consequence of establishing the information provided in the “up flow” stream:

- What is the current situation?
- Has the objective been realised?
- Is corrective action required?
- What now needs to happen or change?

782. For the Information and Action “pipeline” to flow effectively, and for the desired objectives to be realised there are certain prerequisites:

- Every individual must be aware of enterprise objectives (Business Plan / Mission Statement);
- Every individual must be aware of short-term objectives (Specific Work Plan);
- Every individual must know their place or “level” in the overall structure (Organisation Chart);
- Every individual must know what is expected of them (Job Description - Accountability);
- Every individual must know the level and limits of their authority (Job Description - Authority);
- Every individual must know the required Performance Standards (Technical Guidance Document).

783. By direct inference, the organisation must have developed and implemented the following elements (which, collectively, create the framework within which the Information and Action “pipeline” must flow):

- **BUSINESS PLAN** and MISSION STATEMENT;
- **WORK PLANS** Short- and Medium-Term;
- **ORGANISATIONAL CHART** / STRUCTURE DIAGRAM;
- **JOB DESCRIPTIONS** and JOB SPECIFICATIONS for each job or position;
- **TECHNICAL GUIDANCE DOCUMENT** elaborating task specifications and standards.

784. Probably the essential “core tenet” of an effective Information and Action Pipeline (and, indeed, a basic requirement if any “Supervisory Structure” is to operate effectively) is the principle of “accountability”: Each individual in a mining environment is both responsible for the conduct of certain, specific actions, and also answerable for the implementation and outcomes of those actions. Such principle can only be enforced (in a pragmatic sense) if there is a supporting system whereby those actions can be recorded and subsequently verified.

785. In addition to the core supporting elements and main documents listed above, to establish and maintain an effective Supervisory Structure (and the Information and Action Pipeline through which the Structure operates), the organisation must have an adequate, formal reporting, briefing and instruction system. Through such system situations and information are formally recorded and attributed, required actions and responsibilities officially delegated, events and outcomes communicated.

786. Such system need not be unduly complicated. A basic (but adequate) system could consist of the following:

Supervisory System Core Reports

- Team Leader's / Chargehand's Shift Report;
- Shiftboss's / Area Leader's Shift Report;
- Mine Captain's – Mine Overseer's Daily Report;
- Section Manager's Weekly Report;
- Mine Manager's Monthly Report.

Supervisory System - Instruction Logs and Records

- Shiftboss's Instruction to Team Leader / Chargehand;
- Mine Captain's Instruction to Shiftboss (or more junior employee);
- Section Manager's Instruction to Mine Captain (or more junior employee);
- Mine Manager's Instruction to Section Manager (or more junior employee).

787. The essential requirements of each of the above reports and instruction records are that:

- All of the central issues and requirements deemed appropriate or relevant to that specific level of reporting be formally included and commented upon;
- Every Report or Instruction issued is dated and signed-for by the originator (who must be suitably qualified to make the report or give the instruction);
- A permanent, original record of all of the above reports and records must always be maintained;
- Amendment and alteration of original entries must be expressly prohibited;
- Supplementary and explanatory comments may be added, post-facto, to the original report or instruction provided that the original entry be wholly maintained and that the additional comment be, itself, dated and signed-for.

788. While the above description of "Core Reports" and "Instruction Records" has attributed specific job titles to the structure it is acknowledged that a wide range of alternative names and job positions could be devised. It is fully accepted that any such structure would, in reality, be adjusted as appropriate in each specific situation.

789. Even with a conservative “span of control” of 1:4 (on average) for each assigned level, such five-tier structure would be sufficient to supervise an overall mine worker contingent exceeding 1000 individual miners at Team Member level.

14.5 Supervisory Structure: Basic Model for an NCE Mine

It is strongly recommended that each NCE controlled mine establish a Supervisory Structure appropriate to its local requirements.

790. Reflecting the observations of the preceding section, the following table illustrates the manning arrangements for an NCE controlled mine (mining operations and control only).

791. The table illustrates a structure in which there are some 100-200 “Mining Teams”, each “Mining Team” consisting of (on average) 4-6 individual miners.

792. It has been assumed that each “Mining Team” will be led by a “Team Leader” (or “Chargehand” / “Leading Hand”).

793. The individual “Mining Teams”, together with their respective “Team Leaders”, will be managed and controlled by a duly appointed “Shiftboss” (or “Area Leader”).

794. The “Shiftbosses”, in turn, will report to, and be managed by, a “Mine Overseer” (commonly referred to as a “Mine Captain”). It is expected that the typical “Mine Overseer” will be capable of effectively managing at least four (4) Shiftbosses.

795. Subject to specific local requirements, Mine Overseers may be appointed with regard to physical / geographical constraints, shift constraints, or a combination of both.

796. The Mine Overseers will report and be accountable to (and managed by) a Shift (or Section) Manager, subject to local constraints and requirements.

797. All Shift / Section Managers will report to, and be managed by, that site’s Mining Manager (who, in turn, will be accountable to the site’s General Manager).

798. The following table presents a generic structure which can be adjusted to meet specific local requirements (in terms of both levels and numbers).

Table 13. Generic Supervisory Structure.

Level	Number	Job Title	Comments
1	1	MINE GENERAL MANAGER	Responsible and accountable for complete business, financial and operational performance of the total mine.
2	1	SITE MINING MANAGER	Responsible and accountable for all aspects of mining, operations, and extraction performance of the total mine.
3	2 - 4	SECTION or SHIFT MINING MANAGER	Responsible and accountable for all aspects of mining, operations, and extraction performance of a defined part of the total mine.

Level	Number	Job Title	Comments
4	6 - 12	SHIFT MINE OVERSEER	Responsible and accountable for all aspects of mining, operations, and extraction performance of a defined sub-part of a Section Manager's area.
5	24 - 48	SHIFTBOSS or AREA LEADER	The performance of several mining teams in accordance with both the agreed and specified standards as given in the TGD. The physical and safety conditions in each of the places that those mining teams are required to work, or to which they must have access.
6	96 - 192	MINING TEAM LEADER	The correct task performance of the mining team for which he is Leader (in accordance with both the agreed and specified standards as given in the TGD, and good mining practice where no specific standard or guidance is available). The physical and safety conditions of the places in which that mining team is required to work, or to which they must have access.
7	480 - 960	MINER	To diligently fulfil, in compliance with the standards given in the TGD (and good mining practice) those instructions received from his Mining Team Leader or superior official.

799. While the above comments, observations and recommendations of this Report have predominantly concentrated on a Supervisory Structure in direct relation to the coal mining and extraction activities of NCE, identical proposals are directed to the electrical and mechanical engineering and maintenance functions of these mines.

It is recommended that an appropriate number of Shiftbosses (or, "Area Team Leaders) be appointed without delay at each NCE mine.

It is recommended that each duly appointed Shiftboss will be formally made responsible and accountable for:

- The correct task performance of several mining team in accordance with both the agreed and specified standards as given in the TGD, and good mining practice where no specific standard or guidance is available;*
- The short-term physical and safety conditions in each of the places that those mining team (and their respective Team Leaders) are required to work, or to which they must have access.*

It is recommended that each directly controlled and managed NCE mine appoint a comparable structure of supervisory staff – drawn from the mechanical and electrical engineering / maintenance function – as that proposed for the mining operations function.

It is recommended that a directly equivalent system for responsibility, inspection, reporting and implementation as that suggested for Mining Operations be applied to

Electrical and Mechanical engineering and maintenance. Exactly identical principles of accountability should be required of all functions regardless of exact technical discipline.

14.6 Supervisory Structure: Sub-Contracted Supplier Operations.

800. As with most aspects addressed by this Report, it is recognised that the requirements for a “Supervisory Structure” recommended for each Sub-Contracted Supplier, should have due regard to the likely size and extent of that SCS operation, should be, therefore, be adjusted from that required of a directly controlled and managed NCE mine.

It is recommended that a Sub-Contracted Supplier be advised to consider the structure that has been proposed for a directly controlled and managed NCE mine, understand the principles underpinning such structure, and then implement a structure which – while acknowledging the underpinning principles – is both appropriate and commensurate with the operation of that Sub-Contracted Supplier.

801. It is the opinion of this Report that development of the basic skills and knowledge appropriate to the establishment of a simple (but effective) Supervisory Structure at each Sub-Contracted Supplier operation will be a core element of the training and capacity building offered to the SCS by the NCE support team.

15 Health and Safety Considerations

15.1 Summary of Health and Safety Considerations and Recommendations

802. The considerations and recommendations presented in this section of this Report are necessarily concise (with more extensive commentary and detail to be found in the previously submitted report “Northern Coal Enterprise: Assessment Report” of November 2014).

803. Some supporting and background information is presented, herein, as evidential data illustrating the currently parlous state of Health and Safety, not only in the mines of Northern Coal Enterprise, but in the wider mining sector of Afghanistan.

804. The approach and recommendations that this Report tenders in respect of improvement of the pertaining Health and Safety situation, while focusing on the direct needs of Northern Coal Enterprise, have been structured in such a way that they can – through appropriate “downsizing” and adjustment – be applied to those smaller, independent (or artisanal) mine operators who ultimately elect to become Sub-Contracted Suppliers (of Coal to NCE) in pursuit of the core strategy that this Report proposes.

805. It is noted that the proposed strategy (for Reform and Restructure of NCE), as elaborated in this Report, specifically allows for measures to improve the Health and Safety situation at the Independent Mines by providing them (the former IM’s) with technical support, training, guidance and (most important of all) the physical assets needed to mine in a safer way. All of these benefits accrue to the IM on electing to become a Sub-Contracted Supplier to NCE.

806. **The approach recommended for the improvement of the overall Health and Safety situation is summarised as follows:**

- Establish the necessary “mental” (and corporate) mind-set in which safety and employee well-being are the predominant drivers of all decisions and actions. This will require both appropriate statement of policy and the implantation of corresponding systems;
- Implement a system for thorough (and accurate) report and analysis of both accidents and incidents (events that could – but did not – result in accidents / human harm);
- Develop a culture of “Positive Reinforcement” (for the comprehensive reporting, analysis, change implementation of all accidents and incidents). Reward compliance and contribution, avoid attribution of blame;
- Encourage the assimilation of “Change”. When better, or improved, methods and systems are identified, then support and implement them;
- Provide the correct, suitable Safety Equipment (both for the environment and for the task);

- Support and reinforce all of the above with (suitably detailed) Policies, Procedures and Standard Operating Practices. It is especially noted that such elements will require modification and adjustment to be suited to the user (e.g. an NCE operation, a large Sub-Contracted Supplier, or a small Sub-Contracted Supplier);
- Create a fully trained and equipped Mines Emergency Rescue Service, centrally based and able to respond to emergencies across a full range of mining operations.

15.2 Introduction to Health & Safety Considerations

807. The following section (Section 14: Health and Safety Considerations) provides a necessarily brief summary of the findings and proposals in relation to the improvement of Health and Safety aspects of the Northern Coal Enterprise as associated with this Report's declared Strategic Plan and the objectives of reform and restructure.

808. The aforementioned report contains an in-depth analysis of the current health and safety situation in the coal mines operated by NCE, and by extension and inference, an analysis into the situation pertaining to the "independent mines" (often referred to as "Small Mining Enterprises" or as "Artisanal Miners") operating within the geographic scope of NCE.

15.3 Background to Mining H&S situation in Afghanistan

Reported Mine accidents

809. Statistics on fatal and non-fatal mine accidents are the primary indicator for health and safety conditions in any mining operation. Statistics however require systematic data collection about accidents, injuries and their severity. As such a reporting system is currently not in place, only major incidents affecting larger numbers on mine workers are recorded and reported. These incidents coincide largely with major mine disasters which find echo in public media.

810. The Table (below) presents some of the incidents and accidents that have been reported.

Table 14. Recorded Mining Accidents

Date of report Cause	Incident description	Location
Oct 25, 2014 Mine collapse	<i>"Four workers were killed when a coalmine tunnel collapsed in the Dara-i-Sauf Bala district of northern Samangan province, an official said on Saturday"</i> ⁴⁶	Dara-e-Suf
April 30, 2014 Explosion (firedamp)	<i>"Illegal and substandard exploitation in blocked coal tunnels is identified as the cause of the incident. A spark ignited the accumulated methane and caused the loss and injuries to the people. The incident occurred at 7:30 AM"</i>	Dahan-e-Tor

⁴⁶ <http://www.pajhwok.com/en/2014/10/25/4-dead-samangan-coalmine-collapse>

Date of report Cause	Incident description	Location
	<i>which killed 24 people and injured 7 others.”⁴⁷</i>	
Nov 07, 2013 Mine collapse	<i>“One worker was killed and another injured when a coalmine partially collapsed in the Dara-i-Sauf Bala district. The district chief, Ahmad Ali, said the ongoing rains triggered the collapse.”⁴⁸</i>	Dara-e-Suf
Sep 15, 2013 Explosion and Mine collapse	<i>“Tunnel collapse at Abkhorak mine in northern Samangan province has killed at least 24 workers.”⁴⁹</i> <i>“Police chief Gen. Mohammad Salim Bekzad told ... the explosion had occurred due to negligence carelessness of engineers. Before the blast, the mine smelt of methane gas. Workers should have come out, but engineers directed them to continue work.”⁵⁰</i> <i>“The provincial governor’s spokesman Sediq Azizi said that: rescue teams have recovered 27 dead miners and there are 22 more wounded.”⁵¹</i>	Abkhorak
Dec 24, 2011 Mine collapse	<i>“The accident took place around 6 am in Chinarak village of Nahrin district in Baghlan province. Eleven miners were killed when a coal mine collapsed”⁵²</i>	Nahrin

811. Health and safety statistics exist reportedly at MoLSMD, but could not be obtained.

812. Health and safety statistics, where existing, however only cover the approximately 900 formally employed or contracted miners, not the estimated more than 10,000 workers of private artisanal miners, working in NCE’s geographic scope. Their accidents or injuries will go unreported. For the Dara-e-Suf coal basin alone, on average 10 fatal accidents per year are reported.⁵³

⁴⁷ <http://mom.gov.af/en/news/33140>

⁴⁸ <http://mines.pajhwok.com/news/worker-dies-coalmine-collapse>

⁴⁹ <http://www.aljazeera.com/news/asia/2013/09/201391563752759330.html>

⁵⁰ <http://mines.pajhwok.com/news/deadly-mine-collapse-linked-negligence>

⁵¹ <http://www.911metallurgist.com/blog/coal-mine-collapse-in-afghanistan-makes-at-least-27-victims>

⁵² <http://www.dnaindia.com/world/report-11-killed-in-afghan-coal-mine-accident-1629654>

⁵³ Interview 2014-11-13. Name of key informant withheld.

813. To close the data gap, secondary data can serve as **proxy indicator**. As such, data from US coal mining in the 1950's, presented in the report of H. Graham⁵⁴ can be used; due to decades of war, limiting access to contemporary mining technology, the technological level of US coal mining in the 50's is comparable to the situation in the mechanised coal mines of NCE today.

814. The figure below shows the typical causes of fatal and non-fatal injuries in mechanised coal mining. **Rock and coal fall and mine collapse** are the predominant causes of accidents. The next most frequent causes for injuries are **gas and coal dust explosions** (in case of fatal injuries) and accidents caused by **machinery and in particular rail car** accidents (in case of non-fatal injuries). Reduction of these accidents requires compliance with the most basic safety rules for coal mining. Avoidance of the large portion of **miscellaneous, non-fatal accidents** requires enhanced safety awareness training of miners.

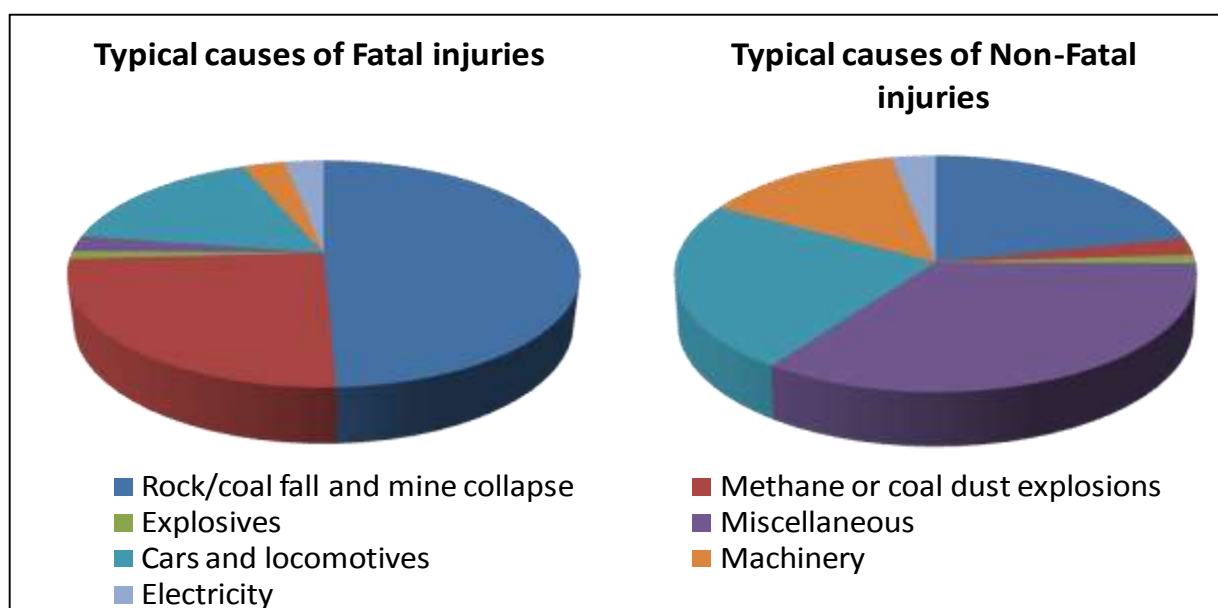


Figure 2. Typical causes of fatal and non-fatal injuries in low mechanised coal mining⁵⁵

⁵⁴ H.D. Graham: Safety in Coal Mining for Afghanistan. United States Bureau of Mines and Royal Afghan Ministry of Mines and Industry, Kabul 1956.

⁵⁵ Data source: H.D. Graham 1956.

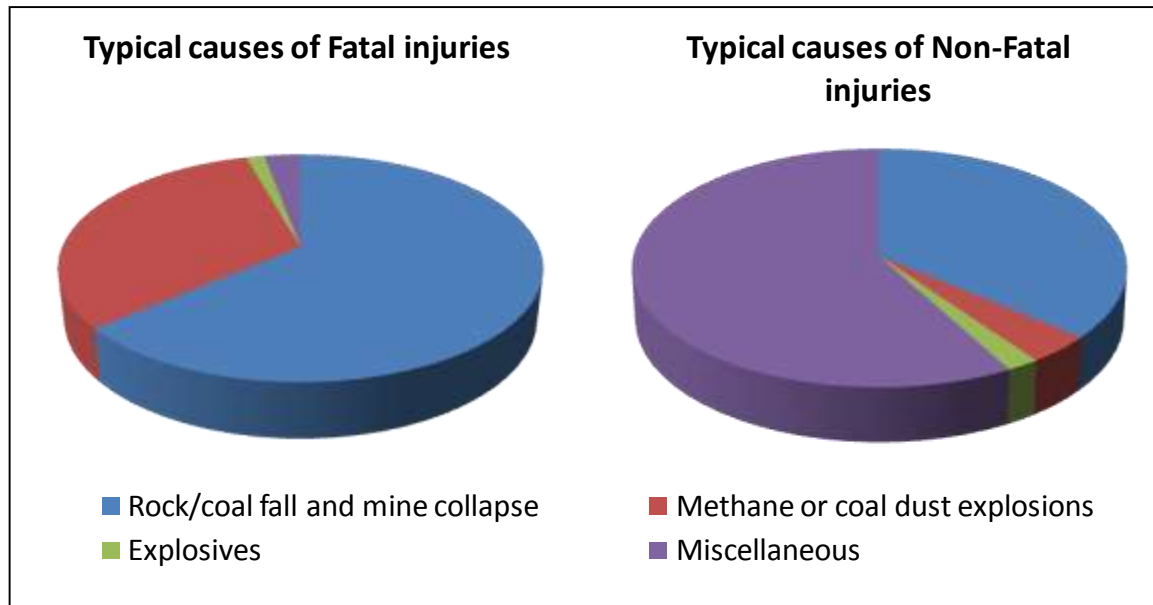


Figure 3. Extrapolation of causes of injuries in artisanal coal mines

815. In artisanal coal mining, **rock/coal fall and mine collapse**, as well as **gas/coal dust explosions** can be considered the predominant causes for fatal injuries, while **rock/coal fall and mine collapse**, as well as **miscellaneous accidents** count for most non-fatal injuries.

816. Based on the above analysis, priority topics on health and safety, described in detail at continuation, are:

- Roof control and prevention of mine collapse, as main cause of major accidents;
- Ventilation and methane control, as second most important cause of major accidents;
- Rail cars and other means of transport;
- Lack of safety equipment, safety training and of mine rescue services;
- Occupational health including child labour issues in private artisanal mines.

15.4 Key Objectives of Health & Safety Improvements

817. The main conclusions of the aforementioned Assessment Report and recommendations for immediate improvement of the health and safety situation, with respect to aspects under direct control of NCE, were that:

- “The health and safety situation in NCE operated mines and in private artisanal coal mines in the geographic scope of NCE, still leaves plenty of room for improvement;
- Priority areas are (the) prevention of mine collapses, improvement of ventilation and methane control to avoid firedamp and coal dust explosions, and improvement of personal safety equipment to reduce occupational diseases such as silicosis”.

818. It was noted that the introduction of measures to improve the health and safety situation in NCE's directly controlled and operated coal mines was – to only a small extent - an issue related with procurement and availability of equipment (safety equipment, mine ventilation, etc.).

819. Further, it was adjudged that the Health and Safety situation primarily required a process of capacity building and the creation of an institutional/corporate culture of “Safety First”. This collective institutional change being accompanied by preventive and corrective measures such as occupational health care and establishment of a permanent Mine Rescue Service.

820. In addition, it is formally noted that substantial improvement of the extant safety systems, practices and outcomes of both NCE and the wider coal mining sector is essential to attain two of the core objectives for the mining industry in Afghanistan as detailed in section 4.3.

Namely:

- To raise standards of Worker Safety, Health and Well-being;
- To reduce mining related fatalities and accidents.

821. However, in concert with Section 17 of this Report (Information Technology and Data Systems), it is recognised that such irrefutably desirable improvements are not a prerequisite for the implementation of the proposed business strategy.

822. The specific recommendations of this section, while targeted towards improvement of the health and safety situation prevailing in NCE's directly controlled and managed mines, are equally valid for application to the proposed “Sub-Contracted Suppliers” and the wider mining sector.

823. Specific recommendations address the following five key areas:

- Integration of health and safety considerations into formal incentive / bonus / remuneration practices;
- Establishment of basic, safety rules in support of a “Safety First” culture;
- Development of standardised “Safe Working Practices” and methodologies;
- Provision of essential safety equipment;
- Creation of a fully trained, professional Mines Emergency Rescue service.

15.5 Formal Incentives and Performance Related Bonuses

824. In order to promote safety awareness and to encourage safe working, it is recommended that the current financial incentive system, which is based on achievement of coal production volumes should to be extended to include health and safety performance.

825. The reporting of incidents / accidents (however seemingly minor), together with the identification and implementation of suitable corrective and preventative measures should also be rewarded with an increased bonus.

826. Failure to report accidents and significant incidents, which then consequentially results in a failure to take the necessary action to improve health and safety, should result in a reduced bonus.

827. It is recommended that the principal of “Reward for Compliance” should also be extended to Sub-Contracted Suppliers engaged by NCE: Implementation of such system should be required of the Sub-Contractors, and persistent lack of compliance be grounds for possible cancellation (or non-renewal) of “permit”.

15.6 Basic Safety Rules

828. It is proposed that a set of ten basic safety rules (as illustrated in the following table) is implemented in all of NCE’s directly controlled and managed coal mining operations.

829. Further, it is recommended that a similar set of ten basic safety rules be offered for implementation by all Sub-Contracted Suppliers engaged by NCE (minor modification may be deemed necessary to accommodate the more modest operations effected by an individual Sub-Contracted Supplier). As above, persistent lack of compliance from the Sub-Contracted Supplier should be grounds for possible cancellation (or non-renewal) of “permit”.

Table 15. Ten basic rules for immediate improvement of coal mine safety

1	Health and safety supervisor For every mine at least one person (H&S supervisor) must be appointed as responsible for H&S. Instructions of the H&S supervisor are authoritative for all persons.
2	Only authorised persons Only persons over 15 years and who have received H&S instructions may be authorised by the H&S supervisor to enter the mine. Every permanent mine worker must be given H&S instruction at least once a month.
3	Access control The H&S supervisor must establish and enforce a suitable procedure that allows him to know at any time who is inside the mine and where anybody is working.
4	Safety equipment Only persons equipped with adequate personal safety equipment are allowed to enter the mine. The H&S supervisor is responsible for providing safety equipment to all persons entering the mine. Minimum personal safety equipment consists of: <ul style="list-style-type: none"> • Helmet; • Electrical miners’ cap lamp (with backup lightbulb), or at least 2 battery powered single-lightbulb flashlights. Persons who work with machines (mechanical pick hammer, rock drill, etc.) must additionally at least be provided with <ul style="list-style-type: none"> • Dust masks. All persons underground must use the provided personal safety equipment.
5	Safety check routine Every day before work begins, the H&S supervisor must check if the mine is safe. This includes an obligatory methane measurement and inspection of roof stability at all places where miners are expected to work that day. If the mine is not safe, no mining activity is allowed (except work to make the mine safe again).
6	No fire

	Anything that can produce open fire or hot sparks is strictly forbidden inside the mine (matches, lighter, cigarettes, candles, carbide lamps, etc.).
7	No explosives The use of explosives is strictly forbidden (unless under an official blasting license and observing all corresponding safety measures).
8	Ventilation Any mine or tunnel deeper than 100 paces (approx. 70 meters) must have artificial ventilation.
9	Timbering Any section of a tunnel which is potentially unstable, and where rock or coal can fall from the roof, must be properly supported by timbering.
10	Two access/exit tunnels Any mine (or section of a mine) that is in the production phase (i.e. after initial mine development advancing tunnels) must have at least 2 access/exit tunnels.

15.7 Commitment to a “Safety First” Culture

It is recommended that NCE formally and publically commits itself to a policy of “Safety First”.

830. A proposed draft of a corporate health and safety policy, which can serve as a model for both NCE and its Sub-Contracted Suppliers, has been developed and is presented in the Table below.

831. It is stressed that, by committing itself (and its permitted Sub-Contracted Suppliers) publicly to adhere to a culture of safety, a strong starting point for the subsequent introduction of a more comprehensive health and safety management system is created.

832. This Report recognises and accepts that minor modification (of the proposed “Health and Safety Policy”) may be deemed necessary to accommodate the more modest operations and capabilities effected by an individual Sub-Contracted Supplier. However in the longer term, as above, persistent lack of compliance from the Sub-Contracted Supplier should be grounds for possible cancellation (or non-renewal) of “permit”.

Table 16. NCE health and safety policy

NCE's vision is that, together with our employees, contractors, subcontractors and clients we will create an injury and illness-free workplace where everyone goes home safe and healthy each day of their working life.	
1	Health and Safety (H&S) are integral parts of NCE's work. It is there to protect all of our employees, contractors, subcontractors, visitors, clients, property, the environment and the public.
2	NCE is committed to ensure that all persons on our sites are aware of and commit to their individual responsibility for his/her own safety and health as well as for his/her fellow colleagues. Accepting this responsibility is a condition of working in our operations.
3	NCE is committed to provide all necessary human and financial resources to implement and communicate our H&S Policy and H&S Systems to all persons at our operations.
4	NCE encourages and welcomes any suggestions, concerns or complaints about H&S from any employee, subcontractor, worker, visitor or other party. We require, encourage and reward reporting of H&S concerns and "safe" thinking and practices and protect any man or woman from reprisals if they do raise concerns or report incidents.
5	NCE is determined to take action against any employee, contractor, subcontractor or visitor who <i>knowingly and intentionally</i> violates our H&S policy or procedures.

15.8 Provision (and use) of Essential Safety Equipment

833. Availability and proper use of safety equipment is an indispensable condition for safe operation of coal mines.

Immediate improvement can be achieved by provision of self-rescue respirators to all miners, methane detectors to all mines, and introduction of mobile ventilation units for small mines.

834. It is for the above reason that sufficient allowance has been made in the form of "Capital Assets" to be provided by NCE to each Sub-Contracted Supplier that is engaged.

Safety equipment

835. A priority area for immediate NCE action is the procurement of basic coal mining safety equipment. While it was noted during the assessment phase that helmets are in use by most miners, and even most lamps in use were proper miners' cap lamps, only a few methane detectors were available, use of self-rescue respirators was not observed and mine ventilation was in most cases insufficient.

836. ***Urgent procurement and distribution of the following equipment is recommended:***

837. ***Self-rescue respirators.*** In case of a mine fire or after an explosion, self-rescue respirators enable the miners to safely leave the area contaminated with toxic gas (CO), leave

the mine and/or reach fresh breathable air. In mostly all coal mining countries, use of self-rescue respirators is mandatory in underground coal mines. Self-rescue respirators need to be provided to NCE tashkeel workers as well as to Sub-Contracted independent workers.




Quantity	Item	Specification
2500 (all tashkeel and independent workers)	Self-rescue respirators (also denominated "Oxygen self-rescuer")	Dräger Oxy 3000 or similar (oxygen capacity for 30 minutes to leave the contaminated area) <u>Requirement:</u> certified by MSHA or similar internationally re-known mine safety authority ⁵⁶

838. **Methane detectors.** Currently only NCE engineers supervising NCE's own mines and independent contracted workers count on methane detectors. As every mine needs to be checked for presence of methane before work begins, the limited number of NCE engineers is not able to check all sites simultaneously. Every work group needs to have its own methane detector and be trained to use it.

Quantity	Item	Specification
200 (all NCE and independent work groups)	Handheld methane detectors (single or multi-gas)	MSA ALTAIR 4X, DRÄGER X-AM 2500 or similar <u>Requirement:</u> certified by MSHA or similar internationally re-known mine safety authority

839. **Mobile ventilation units for small mines.** Artificial ventilation is not a standard procedure in NCE's own mines, but industrial-scale ventilation equipment is reportedly available at NCE warehouse. Small mines operated under contracts of NCE with independent workers however, have no access to artificial ventilation equipment. Due to their remote location, artificial ventilation equipment needs to consist of a package of Generator + Ventilator + Ventilation pipes.

⁵⁶ See <http://www.msha.gov/TECHSUPP/ACC/lists/lists.htm> (MSHA approved equipment)

Quantity	Item	Specification
100 <i>(independent work groups -initially)</i>	Axial (or alternatively centrifugal) blower (for installation at mine mouth)	 or similar 300 mm diameter, 220V, +100 m ³ /min, +300 pa
Same (100)	150 m helix spiral ventilation duct in pieces of 25 m including couplings	 or similar 300 mm diameter Flame resistant, anti-static <i>If possible, certified by MSHA or similar internationally re-known mine safety authority</i>
Same (100)	Portable Generator	 or similar +4.5 kVA, 220 V Diesel powered ideally upgradeable to generator-compressor combo

15.9 Creation of a Qualified, Professional Mines Emergency Rescue Service

840. The absence of a qualified and professional mine emergency rescue service is adjudged a severe disadvantage for NCE, the wider mining sector, and all of the miners engaged therein. If Afghanistan is, fully and successfully, to exploit the mineral resources available to the country, basing its wider economic growth thereon, then it is recommended that a trained and qualified, professional Mines Emergency Rescue Service be created. Such Service to serve not only NCE and the wider coal mining industry, but also the Afghan mining sector in its entirety.

15.10 Proposed Implementation Timeline – NCE Internal H&S Improvements

Table 17. Internal Health and Safety Improvements Implementation Timeline

Timeline	Indicator	Means of verification
Internal regulations and procedures		
Year 1	Enterprise-wide general internal regulations for H&S and corresponding procedures have been elaborated	<ul style="list-style-type: none"> Documents: internal regulation; Document: procedures; Proof that regulations and procedures are adequately communicated inside NCE.
Year 2	Every department of NCE has elaborated specific internal H&S regulations and procedures	<ul style="list-style-type: none"> Documents: departmental regulations and procedures; Proof that regulations and procedures are adequately communicated to employees.
Year 3	H&S hazards and risks of each workplace are identified and reflected in specific H&S instructions given to every workers	<ul style="list-style-type: none"> Documents: Hazards and risk analysis for every workplace; Documents: Safety instruction to be given to every employee; Proof that safety instruction was given to employee at least (X) times per year.
Incident reporting and response		
Year 1	Internal guidelines and formats for incident reporting have been elaborated and communicated	<ul style="list-style-type: none"> Documents: Procedure to identify and report incidents; Document: Format for incident reporting; Proof that guidelines and formats are adequately communicated inside NCE.
Year 2	Incident reporting system is in place and incidents are reported. All incident reports are recorded and systematically analysed	<ul style="list-style-type: none"> Documents: incident reports; Number of incident reports; Incident statistics available.
Year 3	Incident reports are followed up by corrective measures to reduce hazards and risks	<ul style="list-style-type: none"> Documents: Analysis of incident reports; Documents: description of corrective measures to be implemented; Proof of implementation of corrective measures.

841. The above table proposes an immediate 3-year health and safety awareness raising plan, based on a minimalistic set of two core topics and progressive requirements. Progress can be monitored through means of verification and be rewarded correspondingly through an incentive system.

15.11 Initiate a “Workplace Health and Safety Management System”

842. Complementing the above mentioned, literally “immediate” measures for improving the health and safety situation, it is highly recommended that NCE starts a process to design and implement a more holistic Workplace Health and Safety Management System. Such systems are commonly based on the principle of a repetitive sequence of “plan – do – check – act”. Without such a system in place, any immediate measure remains a “patch”.

15.12 Conclusions and Recommendations

843. The health and safety situation in both NCE operated mines and in the independent artisanal coal mines in the geographic scope of NCE, leaves much room for improvement.

844. Priority areas are:

- prevention of **mine collapses**;
- improvement of **ventilation**;
- improved **methane control** to avoid firedamp and coal dust explosions;
- provision of **personal safety equipment**;
- reduction of occupational diseases such as silicosis.

845. Effective improvement of health and safety conditions in the coal mines is only possible within a broader **process of formalising relationships** with the hundreds of private independent and artisanal mining operations that presently exist in Afghanistan.

846. The principal direction of the strategy for “Reform and Restructure” of NCE, which this Report presents, has this objective of building and formalising such relationships as its core.

847. The achievement of safety and productivity, however, requires a process of capacity building, support and formalisation. Implementation of the strategy proposed in this report delivers all of these requirements.

16 Sales and Marketing Considerations

16.1 Introduction

848. In multiple businesses around the globe, including those in the mining and resource sectors, issues of sales and marketing feature prominently in all business strategies and reform initiatives.

849. Commercial business is underpinned by its ability to sell its services and products and the suite of activities collectively known as 'sales and marketing' are considered vital to the capacity of businesses to achieve their long-term mission and short-term objectives and targets.

850. Without detracting from the significance and precedent for the prominence of sales and marketing in business strategy, the circumstances and drivers of the proposed strategic reform for NCE present a rather different balance of issues that collectively lend weight and emphasis in other areas of business activity as detailed in this Report.

851. Thus the reforms within the sales and marketing area for NCE, specifically within the short to medium phase of the proposed strategy are focused heavily on pricing issues and the many other components of the sales and marketing portfolio will emerge only in the medium to long term, if and when, a significant new coal resource is identified and when another wave of fundamental reforms will need to impact across all aspects of NCE.

16.2 Sales and Marketing in Modern Business

852. Business management is full of specialist terms and abbreviations, some of which gain universal recognition, but few of which achieve formal consensus on definition.

853. What constitutes the suite of activities and disciplines collectively known as sales and marketing remains open to interpretation, however there is broad assent that it includes such elements as:

- Conducting sales and recording sales transactions;
- Engaging in communications relating to sales with customers and colleagues;
- Undertaking research into sales, buyer behaviour and consumer trends;
- Engaging in product and service reviews, customer feedback and customer analysis and strategies for customer impact;
- Developing and implementing campaigns for promotions and advertising of products and services;
- Developing and implementing strategies for product and service logistics, display and reach to customers;
- Developing and implementing brand awareness and impact; and

- Formulating pricing strategies for each product and service and group or type of customer.

854. Simplistically, it is often argued that marketing is about the four P's (Product, Place, Promotion, and Price) while in practice it is often an interwoven web of business elements and operations. There are other activities and functions that could be swept up in the umbrella of sales and marketing responsibility including logistics and supply-chain management and research and development. In some businesses public relations and government relations managers report into the Executive of Marketing.

855. All such activities are important in most modern businesses and large international mining and resource enterprises. Ultimately at the pinnacle of NCE success and the long-term phase of the proposed strategy, these activities will come into play.

856. In the short-term few of them require significant focus.

16.3 Sales and Marketing for NCE

857. The proposed strategy in the short to medium term as detailed in section 6 of this Report offers incentives to customers to acquire their coal from NCE with NCE directing the source of supply and managing the pricing and supply agreements.

858. A prospective coal purchaser (NCE customer) will be able to approach NCE secure in the knowledge that he (the purchaser) will be directed to a confirmed source of coal supply (being either a directly managed NCE mining operation, or a known "Sub-Contracted Supplier").

859. Management of the relationships with such customers will, of course, be essential for NCE but it is likely to continue commensurate with the extant situation, for the foreseeable future. As NCE becomes more accomplished in record keeping and analysis of buyer behaviour, so it has more scope to enhance its customer relationships.

860. Not only will the prospective coal purchaser (once NCE has been approached) be made aware of a confirmed source of supply (for the prospective purchaser's requirements), but the prospective purchaser will also be made aware of the price that will apply to the purchase. No longer will the prospective purchaser be required to enter into negotiation and debate with a number of potential suppliers, but the purchaser can proceed with certainty – having now only to accept or reject the offer.

861. Currently the demand for coal exceeds supply, according to most estimates of coal tonnages and it is expected this trend will continue. NCE is at the front-end of the supply-chain and given the current market dynamics (coal mine sites, legal obligations, logistics, mode of transport, security and central markets) all elements imply that, in the short-term, the basics of customers approaching NCE will remain intact and unchallenged.

862. Until a new coal resource is discovered and developed, there is little prospect for significant change to either the "product" or "place" aspects of the marketing mix.

863. Promotional activity, in the modern sense is very limited in Afghanistan and in the coal sector. Coal is a commodity that is well known for multiple industrial, commercial and residential

uses and few downstream customers are impacted by promotional strategies or have regular access to information mechanisms where promotions might occur.

864. Given the above reasons, it is suggested that in the short-term NCE activity in sales and marketing can concentrate on developing price points with suppliers and customers and improving record-keeping and production and selling information.

16.4 Pricing Issues for NCE

865. The Strategic Proposal for the reform of NCE holds that extensive consideration needs to be given (by the empowered stakeholders) to all aspects of product pricing (coal sales price), purchase pricing (coal purchases) and contract prices (coal suppliers).

866. Under the proposed strategy a core benefit offered to prospective Sub-Contracted Suppliers by the proposed “Contract to Supply Agreement” and subsequent “Permit” will be the inclusion of a pre-agreed fixed price for any consequent sale of coal from the Sub-Contracted Supplier to NCE (NCE’s buying price). Upon renewal of the permit (every two years) the price can be renegotiated.

867. The commercial benefit to the aspirant Sub-Contracted Supplier is that he will be enabled to plan for future development and expansion of the embryonic business entrusted to him, with certainty regarding not only the purchase of all coal produced, but the price at which those purchases will be enacted. Jointly, a considerable advantage for any commercial entity aiming to enhance its position and increase its presence in the market.

868. The business plan and budget proposed in support of the strategic proposal holds firm to the extant principle that the NCE “margin” or fee for its services (arranging the supply of coal) is the set price of Afs 2,100 less an amount to the miners (nominally Afs 600) per ton of coal.

869. In this regard therefore, the core principle is that the NCE price to a customer (coal purchaser) will be the agreed negotiated supply price with a Sub-Contracted Supplier plus the margin of Afs 1,500 per ton (Afs 2,100 less Afs 600).

870. Given the current market dynamics and excess demand for coal, many independent (and unofficial coal miners/suppliers) are currently able to charge significantly higher than this official price of Afs 2,100 per ton when supplying coal to a purchaser.

871. Coal sourced from NCE managed mines may need to be priced above current levels to ‘more equalise’ the average price and the fixed fee of Afs 2,100 may need to be increased such that price increases (above the official Afs 2,100) will be proposed so that all available market prices are competitive and to create disincentive to customers to buy outside of the NCE official channel.

16.5 Production and Selling Information

872. Currently there is a paucity of information relating to coal production and sales, from source to market. It is anticipated that various mechanisms associated with the proposed reform strategy will address this factor and over time, lead to vastly improved knowledge and information bank about the coal sector.

873. Such information capture will derive from many elements of the reform initiatives including:

- A new NCE department dedicated to management of the Sub-Contracted Suppliers with a specific task to acquire knowledge and information about the SCS production, coal outputs, sales, coal quality etc.; and
- Introduction of IT systems and processes to assist in data capture, storage and analysis, so that information from NCE managed mines and from Sub-Contracted Suppliers (and other sources of NCE acquisition of coal) can be properly managed and used effectively.

16.6 Conclusion to Sales and Marketing

874. As important as sales and marketing considerations are to all modern businesses, the key principles underpinning the proposed strategy for reform of NCE leaves the basic tenet of the relationship between NCE and its customers intact and moderates it only in so far as the supply relationship between NCE and prospective Sub-Contracted Suppliers evolves as detailed in earlier sections of this Report.

875. Given the current lack of general market sophistication and environmental constraints within the industry (until such time as a coal resource of suitable size and geology conducive to modern mining practices is identified) there is only limited likelihood of evolving the marketing mix in the formative years of reform.

876. Within those years NCE should seek to influence price management as determined under law and through the proposals (as detailed in earlier sections of this Report) to increase productivity and thus sales, NCE can work rigorously towards building greater knowledge and information databases concerning coal supply, quality and customers and monitor the end uses to coal to expand overall market knowledge and information.

17 IT and Data Systems Considerations

17.1 Summary of Section

877. While improvement and upgrading of the existing Information Technology (IT) and Data Systems of NCE will bring longer-term benefits in terms of efficiency and efficacy to the administrative functions of the enterprise (and consequently will enhance the commercialisation of NCE through increased profitability), it is formally noted that such improvements and upgrading of systems is not a prerequisite for implementation of the business strategy that this Report proposes.

878. As the current IT infrastructure of NCE Headquarters in Puli Khumri resembles a “home office” installation that is far from a business grade IT infrastructure, prior to any implementation of IT-based procedures, a substantial up-scaling of the IT hardware infrastructure of NCE is needed.

This “up-scaling” programme requires investment in both hardware/software and human resources. It is strongly recommended that this investment be made, and the programme begun, immediately.

879. It is anticipated that a comprehensive “up-scaling” of systems towards a business-grade IT infrastructure can be accomplished over a period of approximately two to three years.

880. In the short term (<5 years), once an up-scaled IT structure is in place, the advantages and disadvantages of IT-based management systems are adjudged to be approximately in balance. Consistent application of processes, improved data security and more accurate and timely provision of information for decision-making by management will be delivered, but at the cost of necessary human effort and financial expense.

881. In the longer term (>5 years), it is beyond doubt that a modern management, supported by contemporary IT-based management tools and systems, will be essential to ensure continued profitability and sustainability of NCE. It is the opinion of this Report that, with regard to the development and implementation of more modern, improved IT and Data Systems, the fundamental decisions required are not a choice between “yes” and “no” (for the application of such systems), but rather the decisions regarding “when” and “how”.

It is the recommendation of this Report that the first steps towards the implementation of modern, appropriate IT and Data Systems need to be taken without delay.

882. Effectively, that an immediate decision and commitment to the upgrading of NCE’s IT infrastructure should be made.

17.2 Introduction to Section

883. This section draws on UNICON’s previously submitted report “Improvement of Information Technology of the Northern Coal Enterprise”. That report contains an in-depth assessment of NCE’s current IT situation and elaborates on the technical details of progressively deploying a fully operational, business-grade, IT infrastructure and Data System.

884. Herein is a synopsis of the contents of the aforementioned report. These comments focus on the recommended steps to support NCE's operations through the roll-out of a business-grade IT System.

885. Section 17.3 details the required step-wise upscaling of NCE's IT hardware and software infrastructure, as well as the required technical skills to maintain and administrate a business-grade IT infrastructure.

886. Section 17.4 provides guidance for the implementation of Advanced Systems including Enterprise Resource Planning (ERP) software and database solutions.

887. The content, comments and recommendations of this section aims to create awareness that the implementation of IT and Data Systems requires a systematic approach that does not allow for shortcuts. Implementation of contemporary IT-based management tools and instruments is only recommendable once a reliable IT hardware and software infrastructure is in place.

17.3 Upscaling of IT Infrastructure (hardware, software, human resources)

888. Implementation of a fully operational, business grade, IT infrastructure at NCE can be achieved through a "roll-out" structured into two consecutive phases. Successful implementation of Phase 1 (i.e. a reliable, fully operational, business-grade IT infrastructure is in place) is a necessary pre-condition for the implementation of any advanced business application such as Enterprise Resource Planning (ERP) software.

IT deployment Phase 1

889. **Hardware. Phase 1 needs to focus on upgrading the Local Area Network (LAN) hardware infrastructure to business grade.** At enterprise level, as required for NCE, a client/server LAN (also called a "domain type network") is the only recommendable option.⁵⁷ A domain controller stores information about members of the domain, including devices and users, verifies their credentials and defines their access rights. Microsoft highly recommends at least two domain controller, running on dedicated server machines to provide automatic failover protection.

890. The recommended **initial hardware configuration consists therefore of 3 server machines: 2 lightweight server machines acting as Domain Controllers and 1 Application Server machine.**⁵⁸ Domain Controllers do not require a lot of resources and can be deployed on more economic lower-performance server hardware. A more powerful Application Server is recommended for all other services to be deployed (initially: file server, internet gateway and firewall, windows update server, virus protection, etc.; later: database server, VPN server, web server, exchange server, etc.).

891. **Additional to cabled LAN it is recommended to deploy wireless networking (WLAN).** Using a few wireless access points in appropriate locations of the NCE compound and equipping non-networked PCs with wireless network cards will save a lot of cabling work. Both

⁵⁷ Continuation of work in a Windows environment is assumed from the outset. Any other platform (e.g. Linux) would impose additional and significant challenges.

⁵⁸ Here, "application server" relates to hardware, all other mentioned server services relate to software.

(wired and wireless LAN) require a switch, whereby - for performance and scalability - a managed 1Gbps switch is recommended. Managed switches allow for access control and therefore increased network security. At least server machines and switches need to be equipped with uninterruptible power supply (UPS) that provides emergency power when the main power source (grid power) fails. To save costs, the on-battery runtime of a UPS may be relatively short (15 to 30 minutes) but needs to be sufficient to keep equipment working during short power outages and to properly shut down the protected equipment in case of prolonged outages. Additionally, for reliable operation of wireless access points, the switch should feature Power over Ethernet (PoE).

892. Based on the above considerations, the minimum required IT infrastructure appropriate for contemporary business operations of NCE HQ Puli Khumri is proposed as in the figure below.

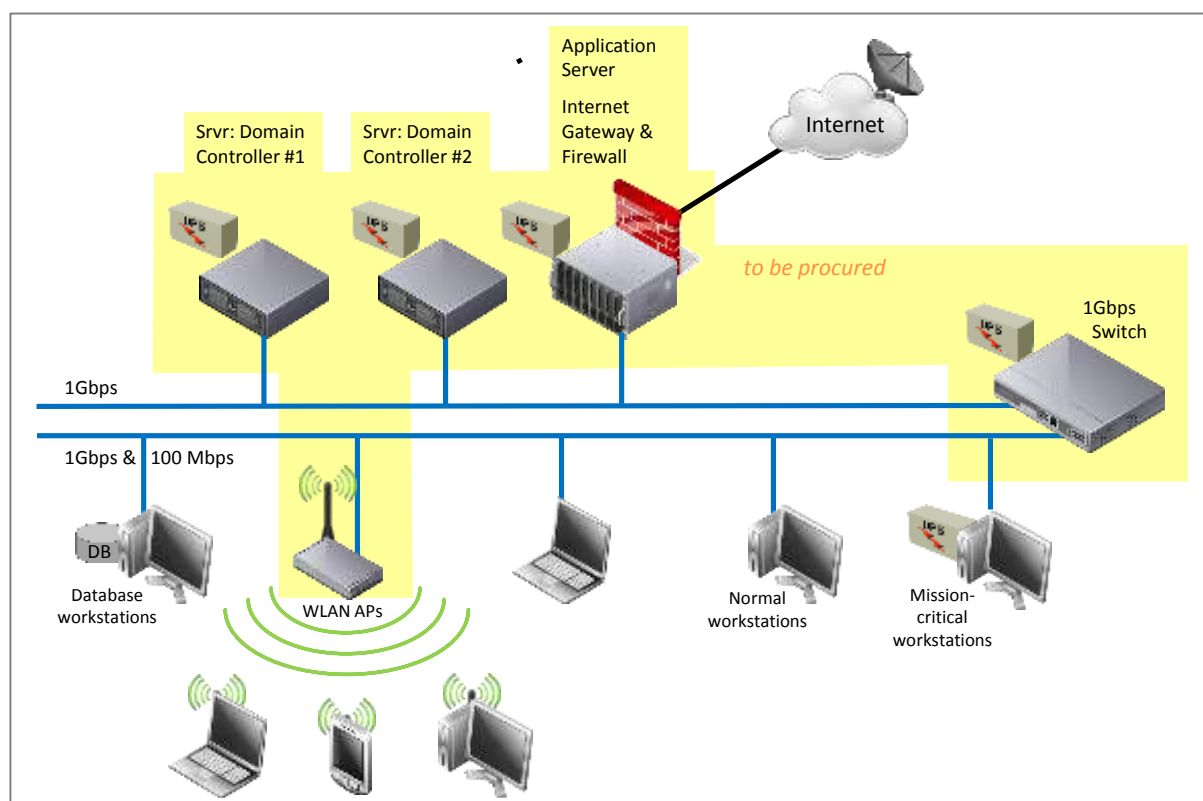


Figure 4. Minimum IT hardware infrastructure recommended for NCE HQ Puli Khumri

Table 18. Example of typical equipment and cost estimation of essential hardware

Role	Equipment (Example) or similar	Regular Price (USD)
Domain Controller #1	Dell PowerEdge R220 Rack Server Intel Xeon E3-1231 v3 3.4GHz, 8M Cache 2*8GB RAM 2*500 GB HD in RAID 1 Windows Server 2012R2 + 5 CAL	2,800

Role	Equipment (Example) or similar	Regular Price (USD)
Domain Controller #2	Dell PowerEdge R220 Rack Server Intel Xeon E3-1231 v3 3.4GHz, 8M Cache 2*8GB RAM 2*500 GB HD in RAID 1 Windows Server 2012R2 + 5 CAL	2,800
Application Server & Internet Gateway	Dell PowerEdge R730 Rack Server Intel® Xeon® E5-2680 v3 2.5GHz,30M Cache,9.60GT/s QPI,Turbo,HT,12C/24T 2*32 GB RAM 4*4TB HD in RAID 5 1 10Gbps NIC 3 1Gbps NIC 1100 W dual redundant power supply Windows Server 2012R2 + 10 CAL + 5 RDT CAL	12,300
Network Switch	Dell Networking Switch N2048P 10/100/1000 Mbps managed switch 48 ports with PoE @ 30W 2 10Gbps uplink ports	4,800
UPS	Dell Smart UPS 3000VA Rack	1,400
Wireless access points	5 * Netgear WNDAP350 Prosafe Dual Band Wireless-N Access Point @ USD 300 1000/100/10 Mbps with 10 Gbps uplink	1,500
Various	UPS for mission critical workstations, etc.	4,400
Total (USD)		30,000

893. **Physical infrastructure.** *To protect costly IT infrastructure and valuable data from unauthorised access, deterioration, destruction and loss, it is best practice (and recommended) to have a dedicated server room.* Ideally such a server room is located in the interior of a building, has no windows, doors that can be securely locked (ideally with biometric access control), antistatic floor, dust filter, air condition to avoid overheating of equipment during summer months and counts on a backup generator to ensure uninterrupted availability of services. Overall cost of establishing a small but adequate data centre infrastructure is estimated to equal hardware investment, i.e. USD 30,000.

894. **Software. Phase 1 needs to address software requirements for a business grade IT infrastructure.** This includes at a minimum the use of genuine licensed software, ensuring required system updates and providing endpoint protection (corporate Antivirus software) for all devices. As internet connectivity is not only required for web services such as Web browsing or Email, but to maintain all systems up to date, a reliable connection with at least 6 Mbps bandwidth is initially required. Access control software can help to cut high connectivity costs and to provide an extra layer of security. Basic software costs including Internet connectivity are estimated in the range of 10,000 USD per year

Table 19. Annual software licensing and subscription cost for 50 users

Product	Estimated one-time cost (USD)	Estimated recurrent cost per year (USD)
Windows Operating System license MS Windows 10 Pro	200 per PC	
Licenses MS Office 365 Home (10 licenses valid for 5 installations each)		600
WSUS (updates for Win OS and MS Office)	free for windows server	
Symantec Endpoint Protection for 50 users		2,200
6 Mbps Internet connectivity		5,300
Websense subscription for 50 users		1,700
Total per year (USD)		9,800

895. **Investment and operating costs.** Upgrading of IT infrastructure is estimated to require US\$30k for hardware procurement and US\$30k for infrastructure adaptation. Adding costs for importing and delivering equipment to Puli Khumri, professional installation by an IT service provider, and contingencies, total investment needs may ascend to up to US\$ 100,000.

896. With connectivity and software licensing costs in the range of US\$10k, and including other operating costs such as power consumption, maintenance, spare parts and consumables it is safe to anticipate annual running operating costs in the range of US\$ 20,000.

897. **Human resources are as important as hard- and soft-ware together. Deployment of the upgraded IT infrastructure needs to be under the direct supervision of an experienced Senior IT System Administrator with at least Microsoft Certified Solutions Associate (MCSA) and ideally Microsoft Certified Solutions Expert (MCSE) certification** in server administration, and previous work experience in installing, configuring and operating small business network infrastructures. The position is considered a temporary 1-year project assignment during which a national high-level IT professional based in Puli Khumri leads the deployment of the network infrastructure and provides on-the-job training to staff of the IT department, supporting them in their tasks and guiding them towards successful certification under Microsoft Training and Certification Programs.

898. Microsoft offers standardised training programs and clear certification paths. All Microsoft training curricula are designed for self-learning. Additionally, several national IT institutes in Afghanistan offer classroom training courses at competitive prices.

- **Within six months from decision to up-scale the IT infrastructure of NCE, all staff of the IT department should have taken the training courses required for Microsoft Technology Associate (MTA) in the area of IT infrastructure and passed the corresponding exam for certification;**
- **Within 1 year from decision to up-scale the IT infrastructure of NCE, staff need to undergo a specialisation reaching Microsoft Certified Professional (MCP) level. At least 2 staff need to reach MCP level in each of the following areas:**

- a) Server Administration (course 410: Installing and configuring Windows Server 2012);
- b) Client Administration (course 687: Configuring Windows 8.1);
- c) Productivity (course 346: Managing Office 365).

899. Staff with server certification (a) will be responsible of operating the NCE network infrastructure, staff with certification in client administration and productivity applications (b, c) will be responsible for installation and maintenance of user PCs.

900. **Staff not able to obtain MCP certification within the given timeframe need to be relocated to other departments, working as integrated IT support staff** in charge of activities similar to those currently conducted, such as providing extended secretariat services like typing documents or data entry. That will reduce the non-IT-related workload of the IT department and free up resources to recruit MCP certified staff for the open positions in the IT department. All MCP certified staff shall be encouraged to attend further courses to obtain MCSA (Microsoft Certified Solutions Associate) and eventually even MCSE (Microsoft Certified Solutions Expert) certification.

901. **Timeframe.** Upgrading the IT infrastructure of NCE to a business-grade network is estimated to require at least 1.5 years. Considering unpredictable delays, the timeframe may extend to 2 years.

Table 20. Roll-out schedule for up-scaling IT infrastructure

Activity	Year 1				Year 2	
Specification of IT hardware and decision making						
Procurement of IT hardware						
Delivery, installation and configuration of IT hardware						
Selection and procurement of software						
Installation and configuration of software						
Selection of ISP and Increase of Internet bandwidth						
Re-configuration of all desktop PCs into network clients						
Contracting of a Senior IT System Administrator						
Basic training of IT staff (MTA certification)						
Advanced training of IT staff (MCP certification)						
Fine-tuning configuration of IT infrastructure						

IT deployment Phase 2

902. Phase 2 of upgrading the IT infrastructure of NCE will focus on linking the Kabul office, remote offices at mine sites and weigh stations with the IT infrastructure of the NCE HQ in Puli Khumri. For this, the Local Area Network (LAN) needs to be up-scaled to a Wide Area Network (WAN) by enabling a Virtual Private Network (VPN) service. With increasing coverage of Mobile Broadband (internet for cell phones) by Afghan telecommunication providers internet access becomes increasingly available also in remote locations. An operational WAN is a pre-requisite

to implement any database application that involves remote offices, such as a customer database application through which the entire process of coal sales is controlled and documented.

903. Up-scaling the IT infrastructure to a WAN will require that external data transfers through the firewall be allowed. This elevates the risks of unauthorised intrusion, data theft and data manipulation considerably, unless the system configuration is robust with all required data security measures in place. It is therefore of vital importance, that phase 1 has been successfully completed before phase 2 commences.

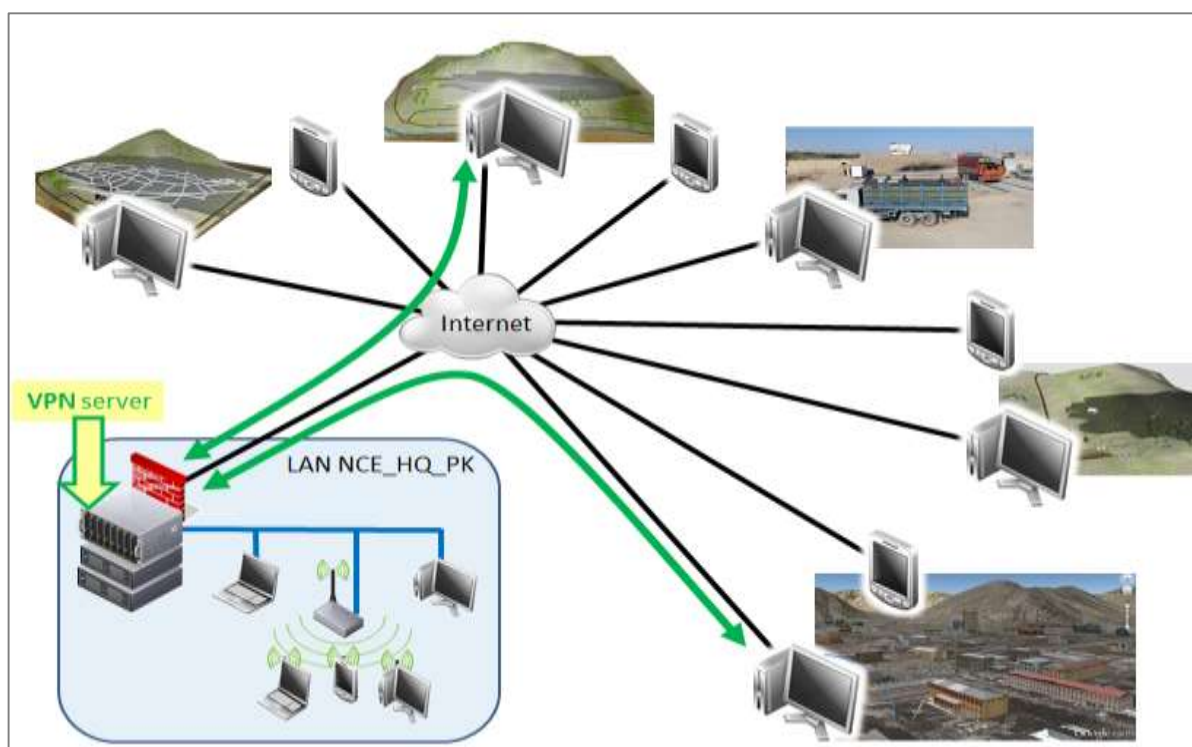


Figure 5. Final IT Infrastructure connecting NCE HQ in Puli Khumri with external offices

904. Readiness to implement advanced business applications in phase 2 requires proficiency in operating a database server. **At least one IT staff member of NCE needs to obtain MCP certification in database administration.** In general, phase 2 does not require substantial investment in hardware but will demand investment in both human resources and business software.

905. All advanced business applications that offer a multi-user interface are, in principle, database applications. **Phase 2 requires therefore a proficient database administrator.** Administration of computer databases is a different task than server administration and requires different qualifications. The Microsoft Training and Certification Programs offer a separate Microsoft Certified Professional (MCP) and Microsoft Certified Solutions Associate (MCSA) curriculum for database administration.

It is recommended that at least one IT staff member of NCE obtains MTA and MCP certification for database administration.

17.4 Implementation of advanced business software applications

Enterprise Resource Planning software

906. IT solutions that allow for integration of planning, sales, accounting and other management functions are commonly known as Enterprise Resource Planning (ERP) software. ERP is business-management software - typically a suite of integrated applications - that an organisation can use to collect, process, store, manage and interpret data from many business activities, including production planning, operation and cost optimisation, manufacturing or service delivery, marketing and sales, shipping and payment, accounting, inventory management, etc. Figure 3, below, shows the some typical modules of full-scale ERP software. Obviously, not all modules are needed by NCE, but modules like sales, production and accounting (Segments outlined in red) represent the NCE departments currently involved in coal sales, whereby the “inner functions” of an ERP, like business intelligence and enterprise asset management, reflect the needs of the NCE Direction.



Figure 6. Diagram showing typical ERP modules and relevance for NCE business processes (Source Wikipedia)

Criteria for selecting ERP software

907. A wide range of ERP software exists, from solutions for small and medium scale companies to large enterprises; as open source and as proprietary software; and using almost any combination of operating systems and database engines. A good overview of available systems is maintained at the Wikipedia page “List of ERP software packages” and the related Wikipedia page “ERP system selection methodology” provides useful guidance for proper ERP

system selection methodology.⁵⁹ Details of the methodology are presented and discussed in the IT Report.

908. Following the recommendations of its earlier IT Report, UNICON intentionally refrains from unilaterally proposing/suggesting any particular ERP vendor to NCE. The selection of the most appropriate solution needs to be a structured process, involving all departments of NCE. Additionally, an indispensable pre-requisite for implementing advanced IT business applications is that Phase 1 of the IT development plan has been concluded and that appropriate hardware, software and human resources are in place. Any recommendation of an ERP system prior to compliance with these pre-requisites would be premature, as software evolves rapidly.

909. Notwithstanding, for a decision to transition from MDP to EDP, the “vendor landscape” of ERP systems needs to be evaluated and monitored in anticipation, for shortlisting eventually suitable systems. One orienting indicator is the market share of each of the different systems:

- Market leaders, supplying together to more than one third of the market, are SAP and Oracle. Both systems target mainly the market of large international enterprises or organisations, and even large companies often struggle with the complexity of these systems. Both should, therefore, be considered out of scope for NCE;
- The second group of mainstream vendors consists of Sage, Infor and Microsoft, with approx. 5% market share each. This group is followed by five vendors with between 3 and 1% market share and then by a large group of small software solution providers with together more than another third of market shares.

910. One main criterion for ERP selection will be that the system operates fully in Dari language, or ideally as a multilingual system in Dari, Pashto and English. Probably this will limit choices. These features need to be explored in direct consultations with the software vendors. With recently more relaxed political-economic relations of western economies (and hence their software companies) and Iran, it is likely that vendors will launch software versions supporting Farsi language, which would then need only slight adaptations to Dari.

17.5 IT and Data Systems: Recommendations and Proposed Actions

911. IT and Data Systems have the purpose to increase efficiency, effectiveness and reliability of business processes. Under current circumstances, possibilities to migrate any mission-critical processes from (partly IT supported) manual to electronic data processing are substantially limited. Given an IT environment of standalone desktop or notebook computers highly vulnerable due to lacking software updates, lacking antivirus protection, frequent power outages, etc., any exclusive reliance on digitally processed and stored information would be highly irresponsible.

Before starting to implement any advanced business applications such as Enterprise Resource Planning (ERP) software, NCE needs to procure a business-grade IT infrastructure adequate in terms of hardware, software and human resources. It is estimated that the deployment of an adequate IT infrastructure takes between one and a half to two years.

⁵⁹ https://en.wikipedia.org/wiki/List_of_ERP_software_packages and https://en.wikipedia.org/wiki/ERP_system_selection_methodology

912. No quick returns can be expected from migrating from manual to electronic data processing. In the short term, advantages and disadvantages are seen more or less at par. Consistent processes, improved data security and more accurate and timely information for decision making by the management come at the price of considerable efforts in human and financial resources:

913. Advantages:

- Routine tasks follow consistently the established and increasingly automated procedures. Possibility for involuntary erratic errors will be reduced;
- Reduced possibilities for fraud and to forge and tamper documents (e.g. coal purchase documents);
- Time necessary to accomplish routine tasks will be reduced. Less administrative staff will be required for routine tasks;
- ERP is supporting the upper level management by providing more accurate and timely information for decision making;
- ERP will improve data security. A common control system, such as the kind offered by ERP systems, allows NCE the ability to more easily ensure key company data is not compromised;
- It is crucial to analyse business processes before implementations of ERP software. Such analysis can identify additional opportunities for process modernisation in NCE. It also enables an assessment of the alignment of current processes with industry standards pre-configured in ERP systems;
- ERP provides increased opportunities for collaboration. Data takes many forms in the modern enterprise; documents, files, forms, emails. Often, each data medium has its own mechanism for allowing collaboration. ERP provides a collaborative platform that lets employees spend more time on their tasks.

914. Disadvantages:

- Most NCE staff are at the very beginning of an IT learning curve. Extensive training requirements take resources from daily operations;
- More streamlined and automated procedures will reduce the required number of administrative staff required for routine work. This will create fears among staff, which in turn will create resistance against new procedures;
- Overcoming resistance to sharing sensitive information between departments can divert management attention;
- Competitiveness of NCE lies partly in pragmatic procedures different to those of common mining companies (e.g. arrangements with Sub-Contracted Suppliers). To reflect these procedures in an ERP may require customisation of the software. This

requires financial resources, and if such resources are not readily available, departments may be tempted to either circumvent the ERP or to adjust procedures to fit the ERP instead of fitting them to the needs of NCE;

- Implementing ERP typically requires changes in existing business processes. Vice versa, changes in business practices may require complete re-configuration of an ERP. Premature implementation of an ERP, particularly prior to decision making on restructuring of NCE towards eventual corporatisation and commercialisation, may cause duplication of efforts and costs;
- Particularly in the beginning, ERP will cost more than current manual data processing. Benefits will be in the long term.

915. Implementation of IT and Data Systems should be seen as a long-term investment with a relatively long (and often not monetarily quantifiable) payback period. It is not possible to assign specific and definitive quantitative values to benefits that will accrue (such as the provision of more accurate and timely information). Well informed management decisions may result in benefits worth tens of millions of dollars, but it is impossible to directly attribute this to improvements in the quality and timeliness of information.

17.6 IT and Data Systems: Section Conclusion

916. In the short term (<5 years), once an up-scaled IT structure is in place, the advantages and disadvantages of IT-based management systems are adjudged to be approximately in balance. Consistent application of processes, improved data security and more accurate and timely provision of information for decision-making by management will be delivered, but at the cost of considerable human effort and some financial expense.

917. In the longer term (>5 years), it is beyond doubt that only a modern management supported by contemporary IT-based management instruments like ERP will be able to ensure continued profitability and sustainability of NCE. It is the opinion of this Report that, with regard to the development and implementation of more modern, improved IT and Data Systems, the fundamental decisions required are not a choice between “yes” and “no” (for the application of such systems), but rather the decisions regarding “when” and “how”.

It is the considered opinion of this Report the first steps towards the implementation of modern, appropriate IT and Data Systems (i.e. to upgrade the IT infrastructure of NCE as outlined in section 17.3) need to be taken without delay. Effectively, that an immediate decision and commitment to the upgrading of NCE's IT infrastructure be made.

18 Environmental Considerations

18.1 Introduction to Environmental Considerations

918. This section of the Report presents an abbreviated summary of the observations, comments and recommendations presented in the earlier submission: “Environmental Impact Assessment, and Environmental Management Planning for Northern Coal Enterprise Properties”.

919. That document was delivered in October 2015 and presented a thorough evaluation of the prevailing environmental situation, suggested measures for mitigation, and recommended specific actions to address the problem areas highlighted. It is recommended to consult this document for further in-depth assessment and detail.

920. It is acknowledged that considerations of Environmental Impact are not central to the fundamental strategy that this Report proposes for the reform and restructure of NCE (indeed, the principal imperatives of the proposed strategy could be actioned without any consideration of either Environmental Impact or the mitigation of the effects thereof).

921. However, in their capacity as “stewards” of the mineral resources and assets entrusted to them, management and stakeholders of the NCE have a “duty of care” to the environment in which they operate, and on which they are dependant.

922. Moreover, when at some future date, it is decided to formally corporatise the business structure of NCE (with the possible intentions of either “privatising” the business or securing external investment in it), then it will be essential that NCE can demonstrate full compliance with internationally accepted norms in respect of environmental matters.

18.2 Key Recommendations for Action

Effect Compliance with Environmental Law (of Afghanistan)

923. ***As an immediate first action, NCE should comply with the Environmental Law.*** There is no legislation that specifically excludes NCE from compliance. Refusing compliance suggests that the Afghan Government – through the actions of its agent the NCE - believes it is above its own laws. Furthermore, it establishes the precedent for other mining interests to claim that they too are not subject to the Environmental Law. Given that NCE claims title to vast tracts of coal lands, if accountability for the requirements of the environmental law is established by court rulings sometime in the future, NCE could find itself made responsible for remediating damage caused by the artisanal miners that operated on its claimed lease holdings.

Train NCE Staff in Skills to conduct Environmental Impact Assessment

924. NCE staff currently lack the technical skills needed to conduct an EIA and to develop the consequent Environmental Management Plan (EMP). It is unclear whether all of the requisite skills needed to execute a comprehensive EIA/EMP can even be found anywhere in Afghanistan.

It is recommended that NCE develop the required skills “in-house” (for EIA, EMP, implementation and training).

925. As NCE reorganizes in pursuit of the Reform and Restructure Strategy”, numerous opportunities for staff re-allocation are likely to be identified. Suitable staff can be retrained to provide them with the skills needed to conduct an environmental assessment and contribute to an Environmental Management Plan.

Extend Capacity of NCE Staff to Advise / Assist the Sub-Contractors

926. Artisanal Independent Miners, from whom the Sub-Contracted Suppliers (of coal to NCE) that the proposed strategy requires will be drawn, do not generally have the resources or skills to identify or mitigate the environmental impacts associated with their activities.

927. By creating an environmental assessment and mitigation capability within NCE, a resource will be provided that has the means and ability to provide advice and guidance to the Sub-Contracted Suppliers to improve their environmental performance.

Perform Environmental Impact Assessment

928. Before successful mitigation measures can be attempted, it is first necessary to understand the nature and scale of the environmental disturbance requiring mitigation. This demands the ***performance of an Environmental Impact Assessment (and the consequent establishment of an environmental database and environmental “Baseline”***.

929. Current international norms (in respect of mining disturbance of the environment) would have the EIA completed before mining starts so that pre-disturbance environmental baseline conditions are determined. Once pre-disturbance conditions are defined, specific changes in local conditions are more easily identified. However, in the case of NCE / Afghanistan, mining disturbance having previously occurred, reasonable and realistic assumptions will be required in order to produce an acceptable “baseline” measure.

930. Detailed steps towards the completion of an EIA are presented in the previously submitted document.

18.3 Identification of Principal Subjects for Environmental Assessment

Surface Water Assessment

931. Identify all surface water bodies, determining how the water in those bodies is being used.

932. Establish baseline rainfall, runoff and erosion characteristics as well as flooding characteristics of any rivers and streams around the mine. (This information is important for siting of facilities out of the floodplain and the design of diversion ditches, sediment ponds, and for water supply potential.)

Ground Water Assessment

933. Essential to the EIA is the development and presentation of baseline water monitoring data, (preferably collected prior to disturbance by mining activity). All existing data on quantity

and quality of water from springs and wells in the vicinity of any mine should be collected and reported in the EIA.

934. It is recommended that the use and extraction rate of groundwater should be documented.

935. Documenting groundwater uses down gradient from the mining operation is particularly important.

936. Water quality in all springs and nearby wells should be reported at least quarterly for at least one year (and preferably two years) to determine baseline quality and chemistry.

937. Maps showing variations on a seasonal basis of water quality and groundwater levels should be prepared. Modelling of aquifers and vadose zones is required to predict groundwater impacts. The EIA should contain the necessary information on the aquifer and vadose zone parameters

Ecological Assessment

938. An ecological assessment requires an understanding of the composition, structure, and functional interrelationships of plant, animal and aquatic communities in the vicinity of the mine so that the conditions needed to re-establish these relationships can be recreated as closely as possible during the remediation process.

939. Identify whether the site or surrounding area falls within a protected area – that is, whether it is an area designated for biodiversity protection at a local, national, regional or international level, and additionally to establish whether the site or surrounding area has been identified by government or other stakeholders as having a high biodiversity conservation priority.

940. Confirm whether the site or surrounding area has particular species that may be under threat (although the area may not currently be officially protected).

941. Review legal provisions relating to biodiversity, and elicit the views of stakeholders on whether the site or surrounding area has rare, threatened, or culturally important species.

942. Include maps of all habitats and key species locations, protected areas, migration corridors, seasonal use areas (mating, nesting, etc.) while describing the timing of important seasonal activities (nesting, breeding, migration, etc.) for species that could be affected by mining activities.

943. Determine and present the ecological characteristics of the project area, including the cumulative impact area for each resource. (For further explanatory detail refer to previous document).

Geological Assessment

944. Understanding the geology of a mine site is not only important in development of the deposit but also in understanding the environmental setting for the EIA. The geology section of the EIA should provide information about the geomorphology of the mine site and surrounding areas including the topography, flood plains, and other features.

945. A more comprehensive listing of salient characteristics and features that should be presented in this section can be consulted in the previously submitted document.

946. Additional to the characteristics referred to above, consideration should be given to landslide and seismic hazards. Disruption caused by an unanticipated landslide or earthquake can have significant effect on the local and regional environment if waste containment facilities are damaged.

Soils Assessment

947. Any mining operation exposes soils to erosion. Windblown soils can be a source of contamination to air and can be deposited on exposed soil and plant surfaces and in water bodies. The EIA should address the following soil related issues:

- Characterise (location, uses, classification, etc.) of soils in the mine project area . Use existing soil maps or conduct a soil survey to characterize soil type, grain size distribution, engineering properties, depth of various horizons, erosion potential, vegetative growth potential, etc.;
- Determine how much soil will be needed for restoration and revegetation, and whether there is enough soil suitable for this purpose.

Air Quality Assessment

948. Air monitoring should be conducted, both upwind and downwind of the mining operation. Monitoring should include the use of high volume samplers and/or other methods to collect samples of air borne particulates and gases that may be emitted from the mining operations. The sampling may be either continuous or by grab or composite samples.

949. Selection of air monitoring locations requires an understanding of site-specific meteorological conditions that can affect pollutant fate and transport.

Climate Assessment

950. Understanding the climatic conditions at a mine site is important for the design of a long-term air monitoring program, development a “Water Balance” for the site, and designing water/erosion control structures.

951. Sampling objectives are to obtain sufficient climatic data to design a long-term air monitoring program, develop runoff models for surface water control and structure design, develop water balances for the various features at the mine site, and develop air models to evaluate the transport and fate of potential air pollutants.

952. All sampling site and weather station locations should be depicted on a map in the EIA

Cultural and Historical Resources Assessment

953. All cultural or historical resources in the vicinity of the mine should be identified, mapped and described. These may be structures or sites, and may include archaeological sites, historic buildings, burial grounds, sacred or ceremonial sites, sites used for the collection of materials

used in ceremonies or traditional lifestyles, and sites that are important because of their roles in traditional stories.

954. During the preparation of the EIA, views should be solicited from stakeholders on whether the site or surrounding area has important traditional or cultural value.

Transportation Infrastructure Assessment

955. While the Environmental Assessment section of the EIA should present basic information on the existing transportation system in the area of the mine, the following information should also be included in the assessment:

956. Description of transportation infrastructure including roads, railroads, air strips, airports and pipelines should be described in terms of its location, name, type, intensity of use, and communities it connects.

957. The baseline should also include information on sediment control or erosion problems.

958. If the project is anticipated to generate a significant amount of additional traffic or to significantly disrupt traffic, an analysis of existing traffic patterns is needed.

959. If there are improvements scheduled for any of the system components, which are not part of the mining proposal, these improvements should be described.

Land Use Assessment

960. The site of the mine and the surrounding vicinity is likely to support a variety of existing land uses. These land uses should be inventoried, mapped and described in the EIA. Existing land uses in the area that may be affected by mining include: Parks, Wildlife refuges, Forest reserves, Hunting areas, Farms, Grazing land, Utility corridors, Roads, Human settlements, Industrial facilities.

961. All of the above, where present, will require specific mention in the EIA.

Socioeconomic Data Assessment

962. Existing social and economic conditions in the vicinity of the mine need to be identified, understood and documented. Historic and current data on these aspects should be presented, to identify any trends in the socioeconomic situation.

18.4 Conclusions

963. ***NCE should, without delay, comply with the Environmental Law and prepare EIAs and EMPs for its mine properties.*** NCE claims exemption from the Environmental Law because of its status as an SOE. If NCE were a private sector entity, they would be required to comply with the NEPA EIA process. As an Afghan Government owned enterprise, NCE should lead by example.

964. The extent of environmental damage is unknown. Observations made during UNICON visits to the coal fields, and private conversations with NCE staff suggest that damage is

occurring, but until a full EIA is conducted, there is no way to know the seriousness of these problems.

965. Several problems are certain or strongly suspected:

- The amount of AMD and ARD being generated in the coal fields is undocumented. If significant quantities are being produced, there is the possibility that the contamination will render surface waters undrinkable and unsuited for agriculture. AMD and ARD may eventually seep into the ground water permanently contaminating it as well;
- Mine fires are destroying coal reserves, dumping carbon dioxide into the atmosphere, and producing an ash residue that is likely to contain significant concentrations of toxic trace elements that can be mobilised by percolating ground waters;
- Several coal beds are known to have anomalous concentrations of toxic trace elements, especially lead, but other toxic elements have high concentrations in certain coals. Dust from these coals and atmospheric emissions when they are burned have the potential to cause significant human and environmental health impacts.

EIAs and EMPs are standard documents that are similar in form in most international jurisdictions. Reference examples are provided in the previously submitted document and should be used as guidance to prepare EIAs and EMPs.

966. The preparation of an EIA and EMP requires the assembly and coordination of a technical team with wide ranging technical skills. NCE has several options available to commission preparation of an EIA/EMP. NCE can hire an environmental consultancy in Kabul; as an SOE, it can try to leverage the required skills from different Afghan Government agencies and institutions; or it can develop the required capabilities in-house. This last option is preferred as it will create a pool of technical specialists able to provide outreach services to local artisanal miners to help them improve their environmental compliance.

967. In order to develop an effective environmental management plan, environmental characteristics must be understood so that the likely consequences of any mitigation action might be anticipated. Some data sets like streamflow, air quality, rainfall, snowfall, and other meteorological parameters typically require one to two years of baseline data measurements before meaningful conclusions can be drawn.

It is recommended that funding to permit NCE to perform data collection and capacity building to eventually conduct an EIA and develop environmental management and mitigation planning, be encompassed within the proposal to allow NCE to retain control of the funds that it generates.

968. A 5-year period is adjudged necessary to acquire the needed equipment and train a capable technical staff able to carry out EIA/EMP studies and develop mitigation strategies to be undertaken in future years to remediate damage caused by mining.

969. The least complex activities will be undertaken during the early years of the effort – critical equipment purchases and training so that technicians learn how to operate the equipment and collect and record the resulting data. In later years advanced technical training will be provided via on-the-job training experience analysing and interpreting various data sets and writing EIAs and EMPs.

19 Conclusions, Proposed Actions and Recommendations

19.1 Summary Conclusions

970. The fundamental conclusion of this Paper is that the core objectives, which underpin the intention for reform and restructure of NCE, will be best realised **not** by a precipitous pursuit of “Corporatisation and Commercialisation” (with the associated implication of consequent “Privatisation” of the enterprise), but by a more considered and incremental programme of business development.

971. This Paper (and the Strategy proposed therein) recognises the many benefits that would accrue from adopting both a “Corporate” business structure for NCE and an operational philosophy that is more “Commercially” aligned.

972. However, it is the conclusion of this Paper that a strategy for the reform and restructure of NCE, founded (firstly) on securing co-operation and collaboration with a proportion of Afghanistan’s numerous Independent Coal Miners while (concurrently) developing the internal systems / methodologies / practices / structures of the NCE business entity, presents a much greater probability of long-term success.

973. This proposed strategy does not refute the possibility of (eventual) privatisation of the NCE business. Rather, this strategy proposes actions that will fundamentally strengthen the NCE business while creating a structure that is more commercially robust. Effectively, reforming and restructuring the extant NCE organisation into one that is more readily suited to eventual full corporatisation and (potential) privatisation when such decision is taken.

19.2 Key Stages of Overall Strategic Implementation

974. Three “Key Stages” have been identified in the overall implementation of the proposed strategy. These are (briefly) summarised in the table below:

Stage	Timing	Definition
1	0 – 5 years	In the short-term the increase in annual production will be secured by: <ul style="list-style-type: none"> Improving basic operations and production methods (and thereby Safety and Productivity) at the extant NCE coalmines; Beginning the “Formalisation” of the supply relationship between NCE and selected “Independent” coal miners, effectively converting those previously “independent” coal miners into “Sub-Contracted Suppliers” of coal to NCE.
2	5 – 10 years	In the medium-term further increases in annual coal production will be secured by: <ul style="list-style-type: none"> The location and identification (for consequent exploitation) of new coal resources, which (because of their physical characteristics) will be amenable (suitable) to

Stage	Timing	Definition
		<p>extraction by more modern, safer and more cost-effective mining methods than those currently practised;</p> <ul style="list-style-type: none"> The ongoing development and expansion of “SUB-CONTRACTED SUPPLIER” relationships with (formerly) independent operators. <p>The activity to locate and identify suitable new coal resources (as referred to above) will be funded by using a proportion of the additional revenue received from the increased sales revenue generated by the additional annual production (obtained in the short- and medium- term).</p>
3	10+ years	<p>In the longer-term further increases in annual coal production will be secured by:</p> <ul style="list-style-type: none"> The establishment and development of actual more modern and more cost-effective coal mines on those new coal resources located and defined in the Medium Term (as referred to above).

975. For further detail and supporting commentaries regarding individual stages the Reader should refer to the detail presented throughout the main body of the Report.

19.3 Introduction to Proposed Actions and Recommendations

976. This Report presents the strategy for the Reform and Restructure of Northern Coal Enterprise that – once fully implemented – will deliver the underlying Core Objectives that were established for the project.

977. More specifically, those Core Objectives have been defined as:

- To raise standards of Worker Safety, Health and Well-being;
- To reduce mining related fatalities and accidents;
- To maximise the revenue stream generated by coal mining activities;
- To increase direct, and associated, employment opportunities;
- To improve worker skill levels and capabilities;
- To increase production volumes, capacities and actual attainment;
- To reduce adverse environmental impacts of coal mining activities.

978. No strategy for reform and structure of an enterprise can, in isolation, directly impact and improve results in areas such as safety, health and well-being. However, an effectively constructed strategy, which addresses the fundamental causes of poor performance, can create the institutional and operational “framework” will encourage the desired improvements.

979. The Strategy for Reform and Restructure presented in this Report offers exactly that required “framework”. The approach to improvement, presented in this Strategy, is one that is based on “Co-Operation, **not** Confrontation”. Effectively offering positive incentives and support to the (currently) Independent Miners – who constitute the great majority of coal production in Afghanistan – that will both encourage and enable these Miners to operate more safely, more productively, and in collaboration with NCE and the Afghanistan authorities.

980. It is stressed that the financial costs associated with the implementation of the proposed strategy (including those of improving operations / production methods, formalising the supply relationship between NCE and selected “Independent” coal miners, and establishing an effective coal exploration programme) will be funded by using a proportion of the additional revenue generated from the additional annual production obtained in the short- and medium- term.

981. The proposed Strategy concentrates – in its initial stages (0-5 years) – not primarily on substantial change to the mining methods that currently prevail (though several important areas for improvement are specifically included), but on a major and significant reshaping of the “Business Model” under which NCE operates.

982. The central element of the proposed strategy in its initial stages is that NCE will increase the annual coal production tonnages derived from “controlled sources”. These “controlled” sources will be the combination of those coal mining operations directly controlled and managed by NCE and a growing group of “Sub-Contracted Suppliers” to NCE.

983. These “Sub-Contracted Suppliers” (of coal to NCE) will be “recruited” from among the ranks of current Independent Miners. The co-operation and support of these (formerly) independent operators being solicited by the offer of:

- Legally recognised “Permits” (to occupy sites and extract coal therefrom);
- Technical training, guidance and support for good mining practices;
- Essential physical assets to promote safer and more productive mining;
- Guaranteed sales of all coal produced.

984. In exchange for these benefits, the (formerly) independent operator (now being a legally recognised “Sub-Contracted Supplier” to NCE) will undertake to:

- Co-operate with NCE and duly appointed officers of the Afghanistan authorities;
- Sell coal only to NCE or to third parties approved by NCE.

985. Actual execution of the proposed Strategy involves the completion of three separate (but partially overlapping) phases:

- Phase One: Preparation;
- Phase Two: Implementation;
- Phase Three: Advancement and Further Development.

986. Whist much greater detail is presented in the following tables detailing required actions and in the main body of this Report, broadly the three phases of execution can be elaborated as follows:

19.4 Key Phases of the Proposed Strategy

Phase One: Preparation

987. Firstly, and most importantly, a Senior Management Team (drawn from NCE, Government Departments, supported by External Consultants where deemed necessary) must be established. This Senior Management Team will be vested with ultimate responsibility and accountability for the delivery of the proposed strategy for reform and restructure of NCE.

988. Broadly, in Phase One the Senior Management Team will be required – by either direct action or the motivation of action from appropriate “third parties” - to create the legal, regulatory and administrative framework needed to permit the consequent implementation of the proposed strategy for reform and restructure (of NCE).

989. Central to the required changes will be the early formal acknowledgement and acceptance, by the appropriate governmental and administrative authorities, of those actions and amendments that are essential to the implementation of the proposed strategy.

990. Thereafter, the Senior Management Team must endeavour to secure the empowerment of NCE with all necessary authorities and rights for the implementation of the proposed strategy.

991. It will be essential that the Senior Management Team wins agreement and acceptance for all of the financial, administrative and operational principals that underpin the proposed strategy.

992. A key task of the Senior Management Team during this first phase will be the implementation of the required mechanisms of “Corporate Governance” as detailed herein.

993. Ultimately, the Senior Management Team must establish all of those resources that will be required for the subsequent implementation of the proposed strategy. Significant among those resources being an adequately trained, qualified and authorised “CORE TEAM” (for strategy implantation, operation and development).

994. It is expected that the Senior Management Team will be empowered to both engage external Implementation Consultants and secure whatever internal support is deemed necessary to assist and advise MoMP and NCE management in the implementation of the reform strategy.

995. Having fulfilled all of its primary responsibilities, the Senior Management Team – at the culmination of Phase One (Preparation) – will increasingly adopt a supervisory and directorial position, allowing the duly appointed “CORE TEAM” to assume direct responsibility for implementation and operation of the proposed strategy.

996. For further detail and supporting commentaries regarding specific individual required actions the Reader should refer to the tables presented in the following sub-sections.

Phase Two: Implementation

997. Primary operational responsibility passes, in Phase Two, from the Senior Management Team to the “Core Team” (as referred to in the above sub-section).

998. While reporting (and accountable) to the Senior Management Team, it is the Core Team that, in Phase Two, will have primary responsibility for implementation and advancement of those operational aspects of the proposed strategy associated with the Sub-Contracted Suppliers scheme.

999. Effectively, in Phase Two, the Core Team must enact all of the requirements of the proposed strategy relating to the implementation of the “Sub-Contracted Suppliers” scheme.

1000. Fundamental during this phase will be the identification (and consequent granting of permits) to sufficient independent sub-contracted miners to ensure that the productivity and growth targets of the proposed strategy are met.

1001. It will be essential to ensure that a suitable mechanism for payment (prior to effecting the scheme) and appropriate logistics for the transactions associated with the sale of coal are established.

1002. The Core Team must organise the supporting staff of the scheme to effect all of the essential requirements of the scheme, and to guarantee that all commitments to training and support of the Sub-Contracted Suppliers are met.

1003. It will be a requirement of the Core Team (using whatever assistance is deemed necessary) to develop and implement all of the recording and reporting systems appropriate to the scheme, and to ensure that both the Senior Management Team and Management of NCE are informed of scheme progress and attainment.

1004. During Phase Two, the Senior Management Team will be responsible for the delivery (or completion) of additional measures which include:

- Establishment by NCE of a separate account a ‘Coal Exploration Fund’ for the support of subsequent exploration and development activities;
- Achievement of an amendment to the Commercialisation Decree establishing the “Coal Exploration Fund” as a financial reserve of NCE;
- Attainment of a policy decision in support of NCE management to take the necessary action to establish the bank account;
- Decision to be made relating to title to properties, enabling suitable commercial values, of such properties, to be determined. Following endorsement by parliament of such a decision, the legal documentation should be prepared and the accounting transactions completed;
- Establishment of formal policies, bank accounts and supervision for Coal Exploration Fund;
- Creation of two new functional departments within NCE being:

- A “Sub-Contracted Suppliers” department;
- An “Exploration” department.
- Encouragement of NCE to speedily transition away from reliance on public sector officers fulfilling the role of Director. Non-executive directors should be engaged as quickly as suitable candidates can be identified.

1005. For further detail and supporting commentaries regarding specific individual required actions the Reader should refer to the tables presented in the following sub-sections.

Phase Three: Advancement

1006. During Phase Three, while the “Core Team” will continue to hold responsibility for the operation of the “Sub-Contracted Suppliers” scheme, the Senior Management Team together with the Board of Directors and senior Managers of NCE will take responsibility for delivery of the key objectives and milestones of this third phase.

1007. While maintaining and enhancing the overall contribution of Sub-Contracted Suppliers to NCE, the key objectives of this third phase demand that:

- NCE be charged with the conduct of an appropriate Exploration Programme to locate and fully identify coal resources amenable to exploitation (and extraction) using more modern (and inherently safer, more productive and cheaper) methodologies and systems;
- NCE mining operations actively pursue the implementation of more productive (and higher yielding) mining methodologies than those current in operation;
- NCE develop and propose a viable, detailed mining methodology for such suitable coal resource as is identified through the performance of a) above.

1008. It is expected that during Phase Three the respective executive, managerial and supervisory cadres of the (now) restructured NCE will complete any of the specified itemised actions tendered herein that remain incomplete from preceding phases.

1009. As previously noted, the Reader is recommended to refer for further detail and supporting commentaries (regarding specific individual required actions) to the tables presented in the following sub-sections.

19.5 List of Required Actions in support of Proposed Strategy.

1010. The core actions and attainments associated with the adoption of the proposed strategy, the “roll-out” of its implementation, and its subsequent further development are summarily noted in the tables that follow. Every effort has been made to assign the individual required core actions and attainments to separate “groups” on the basis of the predominant impact or responsibility of each core action or attainment.

1011. The groups selected are:

1. Adoption of proposed strategy;
2. Legal considerations;
3. NCE business strategy, structure & corporate governance;
4. Implementation of sub-contracted supplier scheme;
5. Control and management systems (NCE mines);
6. Operational disciplines and mining methodology;
7. Business planning, control and financial management;
8. General implementation requirements;
9. Operational management structure / organisational issues;
10. Fixed and material assets.

1012. Equally, the individual required core actions and attainments (in the tables) have been assigned “priorities” to provide an indication of the urgency, importance or necessity of the core action (in respect to the overall implementation of the proposed strategy).

1013. The assigned priorities are:

Priority	Description
A	IMMEDIATE / “PREPARATION” ACTION (-12 to -6 months) Pre-requisite or conditional action / attainment. Must be achieved before the proposed strategy and scheme can be initiated or begin implementation or be launched.
B	INTERMEDIATE / “IMPLEMENTATION” ACTION (-6 to +12 months) Action / attainment that is a requirement of, or to enable, the launch itself, of the proposed strategy and scheme. Some flexibility on exact timing is possible: May be partially implemented prior to formal launch of strategy / scheme, or may permit completion during subsequent operation.
C	ON-GOING / “ADVANCEMENT” ACTION (+12 months onward) Action / attainment that will be (or should be) achieved during the subsequent “advancement” phase of the proposed strategy / scheme development.

1014. Inevitably, there is an unavoidable element of duplication in the tables of required core actions and attainments due to the “overlap” of any individual action into more than one functional intention group.

Table 21. Adoption of Proposed Strategy

Priority	Item	Legal	Governance	Training need	Implementation	Management	Methodology	Health & safety	Reference
A	Formal acceptance by all stakeholders that the option to “Do nothing” is completely unacceptable to the NCE stakeholders.								Sect: 4.5
A	Formal acceptance by all stakeholders that the option “Development and Expansion” offers the greatest, long-term benefits to the Afghan nation. This will allow the establishment of a new mining enterprise based on modern coal mining techniques.								Sect: 4.5
A	Formal acceptance and support of the immediate implementation of the mechanism of “integration” between the extant NCE mines and independent mining operators.								Sect: 4.5
A	Formal acceptance that NCE will, be tasked with establishing contractual relationships in the form of “Permits” (to supply coal to NCE) with a number of (currently designated) “Independent Miners” (IM’s) and thereby engage these newly “permitted” mining operators “Sub-Contracted Suppliers” to the NCE.								Sect: 5.1, 5.2
A	Formally accept and support the need to locate and identify a new coal resource amenable to modern coal mining techniques.								Sect: 5.1
A	Formal acceptance by all stakeholders of the objective to plan, design and implement a new, modern coal mining facility on the identified resource.								Sect: 5.1
B	Formal acceptance of the requirement for the creation of a qualified Professional Mines Emergency Rescue Service								Sect:15.9
B	NCE must be charged with the conduct of an appropriate Exploration Programme to locate								Sect: 4.5, 5.2

Priority	Item	Legal	Governance	Training need	Implementation	Management	Methodology	Health & safety	Reference
	and fully identify coal resources amenable to such exploitation (and extraction) using more modern (and inherently safer, more productive and cheaper) methodologies and systems. Formal acceptance that the management of NCE be: a) Allocated the financial resources necessary for the defined programme of exploration; b) Supported by appropriate personnel with the requisite skills and training both to implement and manage said programme.								
A	Empowered stakeholders will be required to fully assimilate, evaluate and endorse the commercial and financial business philosophy that underpins the proposed strategy: Changes are proposed that substantially move the business model from its present situation as a State Owned Enterprise to one of a considerably more commercially motivated and entrepreneurially driven system.								Sect: 5.2
A	Introduction of a Royalty Fee and formal acceptance of this mechanism for payment to stakeholders.								Sect:5.2
A	Formal acceptance of a dividend on profits as a legitimate mechanism for payment to stakeholders.								Sect: 9.2, 9.4, 9.14
A	Formal acceptance of provision for interim (2 - 3 years) advance remittances from NCE.								Sect: 9.2, 9.5, 9.14
A	Formal acceptance that NCE will be empowered to make financial management decisions.								Sect: 9.2
B	Formal acceptance that NCE will establish as a separate account a 'Coal Exploration Fund'								Sect: 9.2, 9.7, 9.14, 13.2

Priority	Item	Legal	Governance	Training need	Implementation	Management	Methodology	Health & safety	Reference
B	Confirmation that NCE, MOMP and the Afghanistan Mines Inspectorate will assign and allocate sufficient staff of adequate capability to strategy implementation.								Sect: 5.2
A	Engage implementation consultants to assist MoMP and NCE management in the implementation of the reform strategy. Empower the consultants with resources to engage expertise to implement the necessary capacity building specifically for NCE to adequately develop necessary skills								Sect: 10.5, 10.7, 10.8
A	External advisers/executive management to work with MoMP executives as a priority to structure program of approvals and mandates necessary to support reforms and strategy implementation.								Sect: 10.7, 10.8
A	A Senior Management Team should be established to take responsibility for the Plan and for the management of the change process.								Sect: 12.3, 12.4
B	Establish the overall mechanism for payments prior to implementation of the scheme as this will determine the details that will require to be shown on the "Costed Invoice" and the amount that must be paid at the Bank.								Sect: 7.6
A	NCE empowered to re-shape its management and organisational structure outside of conventional Government/SOE structures and outside of civil service rules and pay structures.								Section 7 Sect: 7.2, 7.11
A	NCE be empowered, in conjunction with MoMP, to regulate the price of coal across the market so as to, in the short-term, satisfy social requirements and achieve increased price stability, and in the longer-term, develop an efficiently functioning market.								Sect: 7.2

Priority	Item	Legal	Governance	Training need	Implementation	Management	Methodology	Health & safety	Reference
A	Confirmation that formal “Corporatisation” be deferred until the proposed commercial improvements are implemented.								Section 8, 9 Sect:7.10, 8.1, 9.3, 9.10
B	MoMP to issue instructions for land titles to be verified or issued as necessary.								Section 9 Sect: 9.10

Table 22. Legal Considerations

Priority	Item	Legal	Governance	Training need	Implementation	Management	Methodology	Health & safety	Reference
A	Introduction of a Royalty Fee as a legitimate mechanism for payment to stakeholders.								Section: 7,9 Sects:7.2, 7.4, 9.2, 9.3,9.5, 9,10
A	Adoption of a dividend on profits as a legitimate mechanism for payment to stakeholders.								Section: 9 Sects:9.2,9.4, 9.14
A	NCE, itself, be formally granted (or authorised with) the “Right to Mine” in defined physical areas or mining regions, and that NCE be assigned the right, authority and approval necessary to allow NCE to sub-contract such rights								Section: 7, 10 Sects:8.6,5.4, 7.2, 7.11, 10.7, 10.8
B	An amendment to the Commercialisation Decree is required to establish the “Exploration Fund” as a reserve. A policy decision is then required for NCE management to take the necessary action to establish the bank account.								Section: 7,9, 10,12, 13 Sects: 7.7,7.11,9.1,9.2, 9.7,9.14, 10.5,10.8, 12.1,12.6, 13.2
B	NCE empowered to establish as a separate account a ‘Coal Exploration Fund’.								Section: 7,9,10 12, 13
A	NCE to assist MoMP to amend the NCE Commercialisation Decree, attain approval and thus proceed to implement its provisions to permit a commercial, autonomous business operation								Section: 7,9, 10,12, 13 Sects:7.7, 7.11 9.1, 9.2, 9.7, 9.14, 10.5,10.8
A	Empower NCE with authority to establish formal contractual relationships in the form of “Contract to Supply Agreements” and consequent “Permits” with a number of (currently designated) “Independent								Section: 5,6,7 Sects: 5.2, 5.3 5.4, 6.4, 7.6

Priority	Item	Legal	Governance	Training need	Implementation	Management	Methodology	Health & safety	Reference
	Miners" (IM's) and engage these newly permitted mining operators as "Sub-Contracted Suppliers" (of coal) to the NCE.								
A	NCE authorised to retain earnings from the sale of coal, but remit a pre- agreed "Royalty" (or "License") fee to the Government for the coal resources extracted and subsequently sold (whether that coal be extracted by NCE controlled and managed operations directly, or extracted by duly appointed "Sub-Contracted Suppliers".								Section: 7, 9 Sects:7.2, 7.4, 9.2, 9.3,9.5, 9,10
A	NCE to be empowered and authorised to retain earnings from coal production and sales.								Section: 7, 9 Sects:7.2, 7.4, 9.2, 9.3,9.5, 9,10
A	Authorise NCE to make financial management decisions.								Sect: 9.2
A	Confirm wording of "Contract to Supply Agreements" and consequent "Permits" (to occupy and extract coal).								Section: 5,6,7 Sects: 5.2, 5.3 5.4, 6.4, 7.6
A	NCE to be formally granted (or authorised with) the "Right to Mine" in defined physical areas or mining regions, and assigned the right, authority and approval necessary to sub-allocate such rights								Section: 7, 10 Sects:8.6,5.4, 7.2, 7.11, 10.7, 10.8
B	Empower NCE to engage in an effective supply-chain management role with SCS's and to "require" of them relevant operating standards and mechanisms within such a supply-chain.								Section: 7, 16 Sects: 7.2, 16.2, 16.4
A	NCE to receive Government approval to operate beyond the rigidity of present organisational controls imposed by the Law								Section: 7, 8 Sects: 7.3, 7.4 8.1, 8.2

Priority	Item	Legal	Governance	Training need	Implementation	Management	Methodology	Health & safety	Reference
	on State Enterprises, the existing NCE charter and MoMP directives and the civil service code.								
A	Grant through amendments to the Commercialisation Decree that authorises current NCE operations those changes necessary to permit the proposed organisational modifications.								Section: 7,9,10 Sects: 7.3, 7.4, 7.5, 7.9, 7.11 9.3, 9.4, 10.5
A	Allow exemption for NCE from some existing regulations and controls, thereby permitting NCE to increase its commercial outlook and independence of operation.								Section:7, 9 Sects: 7.3, 7.4
A	Exclude NCE from the requirements of the SOE Law (regarding remittance of after tax earnings).								Section: 9 Sects: 9.2, 9.3 9.7, 9.14
A	Obtain formal Ministerial support and approval (from MoMP) to secure amendments to the Commercial Decree for NCE, thereby providing the support and mandate for the commercial reforms proposed (including those related to the changes of personnel and organisational management).								Section: 7,9,10 Sects: 7.3, 7.4, 7.5, 7.9, 7.11 9.3, 9.4, 10.5
A	Secure parliamentary ratification of such amendments to the Commercial Decree.								Section: 7,9,10
B	NCE be formally authorised to retain earned profits.								Section: 7, 9 Sects:7.2, 7.4, 9.2, 9.3,9.5, 9.10
A	NCE business entity to be formally required to remit a pre-agreed "Royalty" (or "License") fee to the Government for the coal resources extracted.								Section: 7, 9 Sects:7.2, 7.4, 9.2, 9.3, 9.5, 9.10

Priority	Item	Legal	Governance	Training need	Implementation	Management	Methodology	Health & safety	Reference
A	NCE exemption from the existing requirement, under the Law on State Enterprises, to remit retained earnings (after provision for up to 25% for specific internal business needs).								Section: 9 Sects: 9.2, 9.3 9.7, 9.14
A	Relevant legal ordinances and statutes to be modified in order to formally and specifically grant (or authorise) to NCE, itself, the “Right to Mine” in <u>defined</u> physical areas or mining regions – thereby giving NCE legal entitlement (or “title”) to mine and extract coal from specified and identified locations.								Section: 7, 10 Sects:8.6,5.4, 7.2, 7.11, 10.7, 10.8
A	NCE to be legally and formally assigned the right, authority and approval to permit NCE to sub-allocate such rights (or parts thereof) by the issuing of Permits.								Section: 7, 10 Sects:8.6,5.4, 7.2, 7.11, 10.7, 10.8
A	MoMP formally recognise NCE as an authorised agent.								Section: 7 Sects: 7.2, 7.6, 7.8, 7.11
A	Key documents to support the establishment of formal contractual relationships between NCE and SCS’s (“Contract to Supply Agreement” and “Permit to Occupy and Extract Coal”), must be formally drafted and approved.								Section: 5,6,7 Sects: 5.2, 5.3 5.4, 6.4, 7.6
A	Special Decree (or an Amendment to the Commercialisation Decree) be drafted and enacted to enable NCE to be exempt from remittance to Treasury of after-tax profits (while simultaneously proposing to create structures, being a Royalty Fee and Dividend Policy) to compensate for such remittances to Treasury.								Section: 9 Sects: 9.2, 9.3 9.7, 9.14

Priority	Item	Legal	Governance	Training need	Implementation	Management	Methodology	Health & safety	Reference
A	Enact an amendment to the Commercialisation Decree to put in effect the requirement of a Coal Royalty Fee.								Section: 7, 9 Sects: 7.2, 7.4, 9.2, 9.3, 9.5, 9.10
B	Secure amendment to the Commercialisation Decree, thereby establishing the Exploration Fund as a reserve. A policy decision is then required for NCE management to take the necessary action to establish the bank account.								Section: 7, 9, 10, 12, 13 Sects: 7.7, 7.11, 9.1, 9.2, 9.7, 9.14, 10.5, 10.8, 12.1, 12.6, 13.2
B	Decision to be made relating to title to properties, enabling suitable commercial values, of such properties, to be determined. Following endorsement by parliament of such a decision, the legal documentation should be prepared and the accounting transactions completed.								Section: 9 Sects: 9.2, 9.10 9.14
A	NCE empowered to re-shape its management and organisational structure outside of conventional Government/SOE structures and outside of civil service rules and pay structures.								Section 7 Sect: 7.2, 7.11
A	NCE be empowered, in conjunction with MoMP, to regulate the price of coal across the market so as to, in the short-term, satisfy social requirements and achieve increased price stability, and in the longer-term, develop an efficiently functioning market.								Section: 7 Sect: 7.2
B	NCE business entity to “take charge” of its financial assets. Most importantly these financial assets must include the NCE bank current account and all retained earnings from the sale of coal.								Section: 7 Sects: 7.6

Table 23. NCE Business Strategy, Structure & Governance

Priority	Item	Legal	Governance	Training need	Implementation	Management	Methodology	Health & safety	Reference
B	NCE to be empowered and authorised to retain earnings from coal production and sales.								Section: 7, 9 Sects:7.2,7.4 9.2, 9.3,9.5, 9,10
B	Introduction of a Royalty Fee								Sect:5.2.5
B	Adoption of a dividend on profits as a mechanism for payment to stakeholders.								Sect: 9.2, 9.4, 9.14
B	Organise provision for interim (2 - 3 years) advance remittances from NCE to State treasury.								Sect: 9.2, 9.5, 9.14
A	Authorise NCE to make financial management decisions.								Sect: 9.2
B	NCE to establish as a separate financial account a 'Coal Exploration Fund'								Sect: 9.2, 9.7, 9.14, 13.2
A	Provide for the financial costs of improving operations / production methods and of formalising the supply relationship between NCE and selected "Independent" coal miners with funding from a proportion of the additional revenue generated from the additional annual production.								Section: 5 Sect: 5.2
C	Engage a reputable international firm to undertake the annual financial audit of NCE								Section: 8,9 Sect: 8.1, 8.2, 9.4, 9.8, 9.9, 9.11
C	Board decisions are also required (with the approval of MoMP) to initiate the appointment of a reputable international audit firm.								Section: 8,9 Sect: 8.1, 8.2, 9.4, 9.8, 9.9, 9.11

Priority	Item	Legal	Governance	Training need	Implementation	Management	Methodology	Health & safety	Reference
A	Early appointment/recruitment of executive management team								Sect: 12.3, 12.4
B	Establish formal policies, bank accounts and supervision for Coal Exploration Fund.								Section: 9 Sects: 9.9
C	External Advisor(s) (with approval from executive management) to develop a plan for financial management, business systems and introduction of IT systems (aiming for a gradual convergence towards best-practice procedures and standards).								Section: 10,12 Sects: 10.7, 10.8, 12.3
A	External Advisor (with approval from executive management) to develop a plan for engagement of suitable Board of Director appointments.								Section: 10,12 Sects: 10.7, 10.8, 12.3
A	Appoint Board of Directors and commence pattern of regular meetings.								Section: 10 Sects: 10.7,10.8
C	Develop a process for, and engage Independent Auditors.								Section: 10,12 Sects: 10.7, 10.8, 12.3
B	Creation of two new functional departments: - A "Sub-Contracted Suppliers" department; - An "Exploration" department.								Sections: 10,12,13 Sects: 10.6, 10.8, 12.2, 12.3, 13.1, 13.2
A	NCE to appoint a formal Board of Directors with autonomous powers similar to a private corporation with particular emphasis in advancing and promoting a level of corporate governance of a commercial nature, including, but not limited to the rights to determine financial priorities and commitments, outside								Section: 10 Sects: 10.7,10.8

Priority	Item	Legal	Governance	Training need	Implementation	Management	Methodology	Health & safety	Reference
	of existing Law on State Enterprise requirements.								
B	NCE business entity to “take charge” of its financial assets. Most importantly these financial assets must include the NCE bank current account and all retained earnings from the sale of coal.								Section: 7 Sects: 7.6
B	Commitment to the introduction in NCE of a suite of commercial reforms (gradually during the next 5 years). Confirmation that formal “Corporatisation” be deferred until the proposed commercial improvements are implemented.								Section 8, 9 Sect:7.10, 8.1, 9.3, 9.10
B	NCE quickly to transition away from reliance on public sector officers fulfilling the role of Director. Non-executive directors should be engaged as quickly as suitable candidates can be identified.								Section 8 Sects: 8.2
A	Appointment of a respected, qualified and suitable Chairperson to lead the Board.								Section 8 Sects: 8.2
B	NCE will develop a formal dividend policy.								Section 9
B	NCE to make financial management decisions (investments in assets, safety and other initiatives) based on an approved business plan and via Board and management authority rather than ministerial approval.								Section 9 Sect: 9.2
C	A Board of Directors / NCE Management Committee policy decision is needed, with approval from MoMP and Treasury of the Dividend Policy to be declared.								Section 9

Implementation of sub-contracted supplier scheme

Priority	Item	Legal	Governance	Training need	Implementation	Management	Methodology	Health & safety	Reference
B	NCE “Core Team” charged with the implementation of the scheme be fully trained (in the requirements of the scheme) and be able to operate and deliver the constituent elements of the scheme from “Day One” of the scheme’s roll-out.								Section: 6,7,10 Sects: 6.1, 6.2, 6.5, 7.2, 10.7, 10.8
B	Core Team be selected and made available prior to the formal launch of the scheme. Selected Core Team members (together with their duly assigned Leader and Mentors) be fully available at least three months before the target launch date of the scheme.								Section: 6,7,10 Sects: 6.1, 6.2, 6.5, 7.2, 10.7, 10.8
B	Core Team (aided by whichever functional specialists are deemed necessary) should – as priority – create a “Technical Guidance Document” for issue to (and use by) each of the Sub-Contracted Suppliers.								Section: 6,10 13,14 Sects: 6.4,6.5, 10.7,10.8,13.2 13.6, 14.4
B	The funding to SCS’s not be made available in the form of cash, but in specific “hard” capital assets (i.e. plant, machinery and equipment) that will be used to develop that particular mining operation								Section: 5 Sects: 5.3
C	Build capacity in contracts management and negotiating and managing the agreements/permits with independent sub-contracted miners								Section: 10 Sects: 10.5 10.7, 10.8
C	Sub-Contracted Suppliers be advised to consider the supervisory structure that has been proposed for a directly controlled and managed NCE mine, understand the principles underpinning such structure, and								Section: 13,14 Sects: 13.1, 14,6

Priority	Item	Legal	Governance	Training need	Implementation	Management	Methodology	Health & safety	Reference
	then implement a structure which – while acknowledging the underpinning principles – is both appropriate and commensurate with the operation of that Sub-Contracted Supplier.								
C	“Reward for Compliance” (Health & Safety) should also be extended to Sub-Contracted Suppliers engaged by NCE: Implementation of such system should be required of the Sub-Contractors, and persistent lack of compliance be grounds for possible cancellation (or non-renewal) of “permit”.								Section: 15 Sects: 15.1, 15.3, 15.5,15.6
C	Ten basic safety rules (as provided in Report) is encouraged for implementation in all SCS mining operations.								Section: 15 Sects: 15.3, 15.5,15.6
C	Secure sufficient permits with independent sub-contracted miners to support the productivity and growth targets.								Section 10 Sects: 10.5, 10.7, 10.8
B	Development of a Technical Guidance Document to provide guidelines and instructions in respect of safe and efficient mining operations and business practices.								Section: 6,10 13,14 Sects:6.4,6.5, 10.7,10.8,13.2 13.6, 14.4
B	Develop a process/database for monitoring feedback from sub-contracted miners to include: <ul style="list-style-type: none"> - Mine size, grade, production details; - Quality, quantity, reserve and production methods; - Logistic issues, comments and concerns. 								Section: 10 Sects: 10.7, 10.8
B	Initial requirement for qualified professional staff selected and in place some three months before the “Sub-Contracted Supplier scheme” be launched.								Section: 6,7,10

Priority	Item	Legal	Governance	Training need	Implementation	Management	Methodology	Health & safety	Reference
									Sects: 6.1, 6.2, 6.5, 7.2, 10.7, 10.8
C	Establish documentary scheme for recording of training provided between NCE and the Sub-Contracted Supplier.								Section 6 Sects: 6.4
C	NCE to establish system whereby staff, during regular visits to (and inspection of) the Sub-Contracted Supplier's mining operation, confirm that the assets provided are – - Present and available at the Contracted Suppliers mining operation; - Correctly used; - Maintained in an acceptable condition (in a safe, useable state).								Section: 5, 6, 7, 13 Sects: 5.2, 6.5, 7.6, 13.2
C	Training and guidance for the basic skills and knowledge appropriate to a simple wooden timbering Roof Support system at each Sub-Contracted Supplier operation to be a core element of the training offered to the SCS.								Section: 13 Sects: 13.2, 13.6
C	Scheme's Team Leader / Manager or duly appointed designate (supported by whichever specialist assistance is deemed necessary) make regular visits in person to each Contracted Supplier's operation.								Section: 5, 6, 7, 13 Sects: 5.2, 6.5, 7.6, 13.2
C	NCE Team responsible for Sub-Contracted Supplier Operations establish and formally report the key elements of Supplier data at the initiation of the supply contract.								Section: 5, 6, 7, 13 Sects: 5.2, 6.5, 7.6, 13.2
C	Conduct "follow-up" inspections at not-greater-than six monthly intervals (bi-annually).								Section: 5, 6, 7, 13 Sects: 5.2, 6.5, 7.6, 13.2

Priority	Item	Legal	Governance	Training need	Implementation	Management	Methodology	Health & safety	Reference
C	As part of the initial “Data Gathering” exercise undertaken by the NCE Team – the SCS should be obliged to identify all such entry points (both active and disused) known to them, and to inform the NCE representative thereof.								Section: 5, 6, 7, 13 Sects: 5.2, 6.5, 7.6, 13.2

Table 24. Control and Management Systems (NCE Mines)

Priority	Item	Legal	Governance	Training need	Implementation	Management	Methodology	Health & safety	Reference
C	Each NCE controlled mine establish a formal Supervisory Structure appropriate to its local requirements								Section: 13, 14 Sects: 13.6, 14.1, 14.2, 14.3, 14.4, 14.5
C	"Shiftbosses" (Area Team Leaders) be appointed at all NCE mines.								Section: 13, 14 Sects: 13.6, 14.1, 14.2, 14.3, 14.4,
C	Each Shiftboss receive training in practical aspects of (and be experienced in): – Gas detection (especially Methane); – Ventilation practices and requirements; – Safe strata (roof) control; – Working place "housekeeping" (cleaning); – Machine- and hand-tool usage; – Correct (standard) coal extraction methodology.								Section: 13, 14 Sects: 13.6, 14.1, 14.2, 14.3, 14.4,
C	An appropriate "Team Leader's Shift Report" be designed and implemented without delay.								Section: 13 Sects: 13.6
C	An appropriate "Area Team Leader's Shift Report" be designed and implemented without delay.								Section: 13 Sects: 13.6
C	Each duly appointed Shiftboss will be formally made responsible and accountable for: - The correct task performance of several mining teams in accordance with both the agreed and specified standards as given in the TGD, and good mining practice where no specific standard or guidance is available;								Section: 13, 14 Sects: 13.6, 14.1, 14.2, 14.3, 14.4,

Priority	Item	Legal	Governance	Training need	Implementation	Management	Methodology	Health & safety	Reference
	- The short-term physical and safety conditions in each of the places that those mining team (and their respective Team Leaders) are required to work, or to which they must have access.								
C	All NCE mines appoint a comparable structure of supervisory staff – drawn from the mechanical and electrical engineering / maintenance function – as that proposed for the mining operations function.								Section: 14 Sects: 14.5
B	Development of a Technical Guidance Document to provide guidelines and instructions in respect of safe and efficient mining operations and business practices.								Section: 6,10 13,14 Sects:6.4,6.5, 10.7,10.8,13.2 13.6, 14.4
B	TGD should be progressed in close consultation with the Department of Mining “Mines Inspectorate”.								Section: 6 Sects: 6.4
C	Shape the “Technical Guidance Document” as a tool of an effective “Supervisory Structure” and effective mining practices at both NCE directly controlled and managed mines and at those of Sub-Contracted Suppliers.								Section: 6,10 13,14 Sects:6.4,6.5, 10.7,10.8,13.2 13.6, 14.4
C	All measures and procedures adopted by NCE to provide effective ventilation, support and mining systems be incorporated into the Technical Guidance Document.								Section: 6,10 13,14 Sects:6.4,6.5, 10.7,10.8,13.2 13.6, 14.4
B	NCE will keep satisfactory records of tonnages produced from each mining operation and recorded through the weighbridges with full reconciliations between each set of documented records.								Section: 9 Sects: 9.4

Table 25. Operational Disciplines and Mining Methodology

Priority	Item	Legal	Governance	Training Need	Implementation	Management	Methodology	Health & Safety	Reference
B	At each NCE mine, that a continuously updated Mine Plan – presenting an accurate representation of each mine’s physical conformation, layout and arrangement - be produced.								Section: 3, 13 Sects: 3.8, 13.2,13.6
B	That such Mine Plan show the nomination (or “identity name”) of each working place, key roadway and level.								Section: 13 Sects: 13.2, 13.3, 13.6
B	That the accurate and up-to-date mine plans be produced by a competent and qualified Mine Surveyor.								Section: 3, 13 Sects: 3.8, 13.2,13.6
B	That a comprehensive Ventilation Survey be undertaken at each directly controlled and managed mine of NCE								Section: 13 Sects: 13.2, 13.6
C	That all specific measures and details ultimately adopted by NCE for the realisation of an effective ventilation system (either in NCE’s directly controlled and managed mines or in the operations of Sub-Contracted Suppliers to NCE) be fully incorporated into the previously recommended Technical Guidance Document(s) – “TDG”. And that the TDG is be used as the basis of both miner training and operational control.								Section: 6,10 13,14 Sects:6.4,6.5, 10.7,10.8,13.2 13.6, 14.4
C	Establish an Exhaust System of ventilation if the full Mine Ventilation Survey of an individual mine yields a viable configuration for the installation of such.								Section: 13 Sects: 13.2
B	Urgent priority be given to establishing an adequate Primary Ventilation Circuit at each NCE mine.								Section: 3, 13 Sects: 3.8, 13.2, 13.6

Priority	Item	Legal	Governance	Training Need	Implementation	Management	Methodology	Health & Safety	Reference
B	Suitable Secondary Ventilation should be provided at all NCE mines using individual, transportable Auxiliary Fans.								Section: 3, 13 Sects: 3.8, 13.2, 13.6
B	Install ventilation ducting (to carry fresh air close to all working places) should be extended to within ten (10) meters of the intended final point of application.								Section: 3, 13 Sects: 3.8, 13.2, 13.6
B	Siting of all Auxiliary fans, and the control and direction of the airflow in the drives and crosscuts around any such installation, be placed under the control of a qualified and competent Mine Ventilation Engineer.								Section: 13 Sects: 13.2, 13.6
A	Halt – with immediate effect – the practice of installing secondary (or Auxiliary) Fans in locations where the total airflow of clean air over the fan (as provided by the Primary Ventilation Circuit) is less than the volume of air passing through the fan itself.								Section: 13 Sects: 13.2, 13.6
A	Appropriate systems for Access Control, at all NCE mines, be identified and implemented without delay.								Sections:13, 15 Sects: 13.2, 13.6, 15.1
A	Every access point (either by shaft or tunnel) to the underground workings of each NCE mine should – at the surface – be securely fenced or gated.								Sections:13, 15 Sects: 13.2, 13.6, 15.1
A	At each (and every) permitted point of entry to the underground workings of a mine, appropriate signage be erected that alerts all persons to those five key warnings points listed in this Report.								Sections:13, 15 Sects: 13.2, 13.6, 15.1
C	NCE mines systematically adopt roof bolting as the primary means of providing supplementary strata control (“roof support”).								Section: 13 Sects: 13.2, 13.6

Priority	Item	Legal	Governance	Training Need	Implementation	Management	Methodology	Health & Safety	Reference
C	A geotechnical study and analysis (of specific roof conditions and support capabilities) be undertaken to establish the optimal bolting pattern, bolt dimensions and bolt design.								Section: 13 Sects: 13.2, 13.6
A	NCE bears responsibility for, and undertakes the procurement and supply of suitable wood for timbering (both in NCE mines and in SCS operations)								Section: 13 Sects: 13.2, 13.6
C	NCE mines move from predominantly manual ("hand-got") coal-winning to one in which the actual task of winning coal from the coal-face is by miners equipped with powered hand-tools.								Section: 13 Sects: 13.2, 13.6
C	Powered hand-tools (for coal-winning) should be pneumatically fed (compressed air) by moveable air compression units (electrically powered) located not further than 100 metres from the work place.								Section: 13 Sects: 13.2, 13.6
C	Local mine management should decide on the optimal configuration and location of mobile air compressors having due consideration of requirements and ventilation availability.								Section: 13 Sects: 13.2, 13.6
C	A supply of water at adequate pressure and volume be provided to all working faces and in all places in which men are required to work or travel.								Section: 13 Sects: 13.2, 13.6
C	A main water reservoir and pump, to supply the required underground water, be established on surface (convenient to the main access shaft or tunnel) at each NCE controlled and managed mine.								Section: 13 Sects: 13.2, 13.6

Priority	Item	Legal	Governance	Training Need	Implementation	Management	Methodology	Health & Safety	Reference
C	In addition to powered hand-tools, each face mining team be provided with all essential manual tools (as a minimum, roof-bars, picks, shovels, sledge-hammers, adjustable spanners, coal wedges, and straining wire) and a supply of, manually installed “Accro Props” (or, “Screw Jacks”).								Section: 13 Sects: 13.2, 13.6
C	Following the adoption of powered hand-tools, the NCE mines should attempt to establish a basic “short-wall” mining system.								Section: 13 Sects: 13.2, 13.6
C	When a coal resource amenable to underground mining using modern methodologies is identified – a mining system based on Short-wall methodology, and employing Continuous Miners, be installed.								Section: 13 Sects: 13.2, 13.6
A	Expedite the completion of the relevant Health and Safety Policy and Regulations for the mining sector.								Section: 3,15 Sects:3.9, 15.7
B	Extend / amend current financial incentive system, to include health and safety performance.								Section 15 Sects: 15.5
B	Reporting of incidents / accidents (however seemingly minor), together with the identification and implementation of suitable corrective and preventative measures should also be rewarded with an increased bonus.								Section 15 Sects: 15.5
B	Failure to report accidents and significant incidents, should result in a reduced bonus.								Section 15 Sects: 15.5
C	“Reward for Compliance” (Health & Safety) should also be extended to Sub-Contracted Suppliers engaged by NCE: Implementation of such system should be required of the Sub-Contractors, and persistent lack of								Section: 15 Sects: 15.1, 15.3, 15.5,15.6

Priority	Item	Legal	Governance	Training Need	Implementation	Management	Methodology	Health & Safety	Reference
	compliance be grounds for possible cancellation (or non-renewal) of “permit”.								
A	Ten basic safety rules (provided in Report) is implemented in all of NCE’s coal mines.								Section: 15 Sects: 15.3, 15.5,15.6
A	NCE formally and publically commits itself to a policy of “Safety First” (in both direct and SCS operations).								Section: 15 Sects: 15.7, 15.4
C	Procurement and distribution of the following equipment at NCE mines: - Self-rescue respirators (universal); - Methane detectors (trained personnel).								Section: 15 Sects: 15.8
C	Initiate the creation of a Qualified, Professional Mines Emergency Rescue Service								Section: 15 Sect:15.9
B	Development of a Technical Guidance Document to provide guidelines and instructions in respect of safe and efficient mining operations and business practices.								Section: 6,10 13,14 Sects:6.4,6.5, 10.7,10.8,13.2 13.6, 14.4

Business Planning, Control and Financial Management

Priority	Item	Legal	Governance	Training Need	Implementation	Management	Methodology	Health & Safety	Reference
B	Introduction of increased use of IT and IT systems								Sections:10, 16 Sects: 10.7, 10.8, 16.5
C	Convergence of prevailing “in-house” methods to international accounting standards								Section: 9 Sects: 9.2, 9.9, 9.14
C	Adoption of more effective asset management practices and procedures.								Section: 9, 10 Sects: 9.2, 9.10, 9.14, 10.10
C	Systematic implementation of commercial, “best-practice” policies and procedures								Section: 9 Sects:9.1, 9.11, 9.14
A	Provide for the financial costs of improving operations / production methods and of formalising the supply relationship between NCE and selected “Independent” coal miners with funding from a proportion of the additional revenue generated from the additional annual production.								Section: 5 Sects: 5.2
C	Fund the activity to locate and identify suitable new coal resources by using a proportion of the additional revenue received from the increased sales revenue generated by the additional annual production								Section: 5 Sects: 5.2
B	That there is an increase in the use of basic IT tools, including M/S Office software for reporting, which can be the catalyst for progress towards a full IFMIS system.								Section: 9 Sects: 9.8, 9.9, 9.11, 9.14

Priority	Item	Legal	Governance	Training Need	Implementation	Management	Methodology	Health & Safety	Reference
B	Relevant costs for IT development need to be allocated within the business plan and budget process.								Section: 9 Sects: 9.1, 9.6, 9.8, 9.13
C	Allocate resources towards capacity building in financial management, systems and process improvements and IFRS standards.								Section: 5 Sects: 5.2
C	NCE to move from current 'cash-adjusted' method of accounting towards full accrual accounting.								Section: 9 Sects: 9.11
C	With support from MoMP, the Board will instruct the CEO and Head of Financial Management to arrange capacity building and to propose a timetable for step-by-step improvements.								Section: 9 Sects: 9.11
C	Build capacity in financial management and governance practices and supervise the achievement of specific revenue, profit and investment targets								Section: 9 Sects: 9.11
C	Prepare detailed plans and budget for Coal Exploration Fund income and expenditure over 5 year period.								Section: 7, 8, 9, 10 Sects: 7.2, 7.7, 7.11, 8.8, 9.1, 9.7, 10.7
C	Develop appropriate Planning & Reporting formats and underlying support systems and processes.								Section: 10 Sects: 10.7, 10.8
C	Subject to confirmation that the leases held meet the standard accounting definitions of finance leases then the (property) assets should be excluded from NCE balance sheet while the lease is in force.								Section: 9 Sects: 9.10

Priority	Item	Legal	Governance	Training Need	Implementation	Management	Methodology	Health & Safety	Reference
B	Introduction of suitable management practices governing the issuing of credit, the maintenance of inventories and stores of coal etc. (including the management of obligations and payables).								Section: 9 Sects: 9.10
B	Provision for interim (2 - 3 years) advance remittances to assist in Government cash flow, but this practice to be phased out and eliminated								Section: 9 Sects: 9.2, 9.5, 9.14
C	Implementation of more detailed and accurate budget preparation and planning.								Section: 9, 11 Sects: 9.2, 11.2, 11.3
B	NCE will keep satisfactory records of tonnages produced from each mining operation and recorded through the weighbridges with full reconciliations between each set of documented records.								Section: 9 Sects: 9.4
C	NCE will prepare and submit for approval (to MoMP) a commercial business plan on an annual basis – such annual commercial business plan including details of proposed expenditures towards the above initiatives together with a capital expenditure plan.								Section: 9 Sects: 9.6

Table 26. General Implementation Requirements

Priority	Item	Legal	Governance	Training Need	Implementation	Management	Methodology	Health & Safety	Reference
B	NCE need to allocate personnel for suitable IT training, increase access to IT systems through the acquisition of software and hardware, and to generally adopt IT based systems for internal communications and financial information & record-keeping and financial reporting.								Section 9 Sects: 9.8
C	Develop a business-wide Capacity Building program to re-skill and re-train selected employees across all business-critical disciplines, specifically: <ul style="list-style-type: none"> - Mining safety and use of mining equipment; - Commercial business processes including financial management, record-keeping, marketing and management processes; - IT systems, processes and communications. 								Section: 7, 9, 10, 12 Sects: 7.2, 7.7, 9.1, 9.6, 9.8, 9.9, 9.10, 9.11, 10.5, 10.6, 10.7, 12.1, 12.2, 12.3
B	Develop sufficient employee assessments and a program to shift employees towards the proposed organisational structure, to reduce numbers and to establish new functional departments								Section: 10 Sects: 10.5, 10.7, 10.8
C	Build capacity in exploration (geology, surveying, modern mining methods etc.) and develop a program for identifying potential coal resources and to undertake field testing towards full feasibility studies								Section: 9, 10 Sects: 9.7, 9.14, 10.5, 10.7, 10.8
C	Build capacity in financial management and governance practices and supervise the achievement of specific revenue, profit and investment targets.								Section: 10 Sects: 10.5, 10.7, 10.8
C	Promote awareness of environmental impact through environmental management capacity								Section: 10

Priority	Item	Legal	Governance	Training Need	Implementation	Management	Methodology	Health & Safety	Reference
	building within NCE and promotion of environmental awareness with SCS's.								Sects: 10.5, 10.7, 10.8
C	Monitor progress of Capacity Building programs to achieve skills needed and revised organisational structure by end Year 2.								Section: 10 Sects: 10.5, 10.7, 10.8
B	Complete revision of future employee numbers through retirement, natural attritions and redundancy.								Section: 10, 12 Sects: 10.7, 12.3
A	Implement a Recruitment Freeze with no further recruitment carried out until a full assessment staffing requirements of the organisation has been conducted								Section: 12 Sects: 12.3
A	Appoint External Advisor (with approval from executive management) to develop a plan for capacity development towards formal field exploration.								Section: 10 Sects: 10.5, 10.7, 10.8
A	Appointed External Advisor(s) to commence and implement training and capacity building program(s).								Section: 10 Sects: 10.5, 10.7, 10.8
B	Establish an Employee Resource Centre to carry out the following activities: • To oversee and administer the organisational and personnel changes; • To provide support to redundant/early retiring employees to assist them to overcome the issues arising from the loss of their jobs;								Section 12 Sects: 12.3

Priority	Item	Legal	Governance	Training Need	Implementation	Management	Methodology	Health & Safety	Reference
	<ul style="list-style-type: none"> To provide assistance with training and re-training opportunities; and Through external advisers to offer guidance in other areas such as business start-up, creation of a co-operative, financial counselling etc. 								
B	The Board of Directors and NCE management to issue a plan and instructions for the implementation of suitable capacity building and asset management improvements.								Section: 9 Sects: 9.10
B	Implementation of a programme of financial management training and to introduce effective internal controls, policies and procedures in accordance with good governance and commercial best practices.								Section: 7, 9, 10, 12 Sects: 7.2, 7.7, 9.1, 9.6, 9.8, 9.9, 9.10, 9.11, 10.5, 10.6, 10.7,

Table 27. Operational Management Structure / Organisational Issues

Priority	Item	Legal	Governance	Training Need	Implementation	Management	Methodology	Health Safety	Reference
C	Allocate suitable staff and establish facilities for the Exploration Department								Section: 10 Sects: 10.7, 10.8, 13.1
A	Two key exercises are needed to facilitate the planning of a staff reform programme: <ul style="list-style-type: none"> A comprehensive assessment of existing employees to determine details of qualifications, age, skills and experience, to obtain a complete picture of the overall competence of existing staff; and To define all the positions and requisite qualifications, skills and experience that are necessary to satisfy the requirements of the proposed roles/positions within the new organisational structure. 								Section: 12 Sects: 12.3
B	Appropriate procedures and practices to be developed to ensure that the HR function offers support and development to employees beyond basic administrative tasks.								Section: 12 Sects 12.5

Table 28. Fixed and Material Assets

Priority	Item	Legal	Governance	Training Need	Implementation	Management	Methodology	Health & Safety	Reference
C	Decisions (in regard to confirmation of ownership of property and other assets) is required so that proper accounting entries can be completed.								Section: 9 Sect: 9.10
C	Decision to be made relating to title to properties, enabling suitable commercial values, of such properties, to be determined. Following endorsement by parliament of such a decision, the legal documentation should be prepared and the accounting transactions completed.								Section: 9 Sect: 9.2, 9.10, 9.14

Appendix 1:

List of Project Deliverables

1	PMU Report
2	Regional Coal Market Assessment
3	NCE Assessment Report
4	Initial environmental impact assessment of NCE mines
5	Transition Work Plan for NCE operations / Options Report
6	Design training/capacity building program
7	Recommendations for immediate health and safety improvements
8	Technical specifications for immediate procurement of health and safety equipment
9	Workshop/seminar – Technical #1
10	Special Report for DM Hares on essence of Assessment Stage
11	Workshop/seminar – HSE
12	Workshop/seminar – Environment
13	Draft Terms of Reference for independent audit contract
14	Quarterly Report Q2/15
15	Workshop/seminar – Technical #2
16	Proposed financial structure of NCE
17	Reconciliation of NCE balance sheet
18	Workshop/seminar – Financial Management
19	Establish new Chart of Accounts
20	Proposal for division of corporate shares, reporting requirements
21	A two (2) year retrenchment and social mitigation plan
22	Quarterly Report Q3/15
23	Afghan NCE Board of Director requirements and guidelines, Rules of Procedure
24	Assessment of IT on site and installation of improvements for improved communications, data management
25	Assessment of customer data base; recommendations for improvement
26	Proposal for establishment of computer-based systems
27	Articles of Incorporation

28	Template for coal sales contract
29	Legal confirmation of NCE holdings + Facilitation of licensing of NCE holdings
30	Liquidation documents (as may be required)
31	Company by-laws
32	Prepare a Debt Recovery plan and Debt Payment plan
33	Prepare materials for and conduct at least the first NCE Board of Directors' meeting.
34	Quarterly Report Q4/15
35	Assessment and recommendations as needed for Coal storage, transportation and briquette production
36	3-year Business Plan for Northern Coal Company
37	Proposals for restructuring, divestiture, corporatisation, transfer of assets (Part of Business Plan)
38	Two (2) year budget for NCE operations
39	Quarterly Report Q1/16
40	Draft Final Report
41	Procurement plan
42	Final Report

Appendix 2:

Issues relating to the possible Corporatisation of NCE

The Law on State Owned Enterprises provides for the reorganisation, including the corporatisation of Northern Coal Enterprise, via a process of liquidation or dissolution of the existing enterprise and the creation of a new corporate entity.

This process facilitates the formal divestiture, allocation and transfer of assets and obligations from the existing enterprise to the new entity; the termination, allocation and transfer of contracts from the existing enterprise to the new entity and provisions for the transfer of claims and commitments from the existing enterprise to the new entity.

Where a decision is made and endorsed by the Ministry of Finance, that specific assets and obligations, contracts and claims, should not be transferred from the existing state owned enterprise to the proposed new corporate entity, then the law provides that the Ministry of Finance may hold such assets and obligations, contracts and claims, for a term until it can settle or dispose of the same. In this manner the corporatisation process affords the opportunity to assign only valuable assets and contracts at commercial values to the satisfaction of the new corporate (Government of Afghanistan via the Minister of Finance and other ministers) entity.

The existing legal framework only supports the implementation of divestiture and transfer of assets FOLLOWING A DECISION TO CORPORATISE (NCE).

Under the Law on State Owned Enterprises (original and as amended) to form a Corporation, the SOE first has to be liquidated and then reformed as a new organisation. The Liquidation Procedures of an Enterprise describes the procedure for liquidation of state owned enterprises. In brief, the process is:

- The Ministry of Finance, in consultation with the relevant Ministry, may make a proposal to the Council of Ministers for liquidation of any SOE;
- The decision for dissolution and liquidation is made by the Council of Ministers;
- The Ministry of Finance then sets up a Liquidation Committee, with members from other Ministries;
- The Liquidation Committee then oversees the liquidation process.

The following table summarises the key articles from the procedures:

Article	Rule/Comment
1	This procedure has been enacted based on Articles 73 and 79 of the Law on State-Owned Enterprises.
5	The Ministry of Finance, through consultation with the relevant Ministry, may present its proposal and application to the Council of Ministers for dissolution or liquidation of any state-owned enterprise.
6	The decision of dissolution and liquidation of state-owned enterprise shall be made by the Council of Ministers based on Article 66 of the Law on State Owned Enterprises.
7	The Ministry of Finance shall establish a Liquidation Committee within five days of starting the liquidation process. The Liquidation Committee consists of a Director and six members who are representatives of the government:

Article	Rule/Comment
	<ul style="list-style-type: none"> ▪ Ministry of Finance: Two members (including the Director); ▪ Relevant Ministry: One member; ▪ Ministry of commerce: One member; ▪ Ministry of Justice: One member; ▪ Attorney General's Office: One member.
8	Liquidation shall be completed within four months. The Minister of Finance has the authority to requisition the Liquidation Committee and extend the period. Further Articles set out the process for liquidation with timescales for each part of the operation.

The Procedure of Corporatisation of State-Owned Enterprises was established in February 2007.

In brief the procedure is that:

- The process is led by the Ministry of Finance and is in accordance with the Law on State Owned Enterprises;
- The Ministry of Finance appoints a Liquidation Committee;
- The Liquidation Committee prepares lists of all assets, debts and employees;
- The proposed shareholders of the new Corporation divide those lists into two parts:
 - Those that are to be transferred to the new Corporation;
 - Those that are to remain with the Enterprise;
- The new Corporation is established and transfers are made;
- The Enterprise is then immediately dissolved;
- Employees who are not transferred either:
 - Remain as employees of the Enterprise;
 - Move to other positions within the Ministry;
 - Are terminated from their jobs (but no employee is to be terminated within six months).

The Law on Corporations and Limited Liability Companies will provide further guidance on the legal requirements and obligations of the new corporation and the Law on State Enterprises will no longer apply.

Appendix 3:

Indicative budget for the Exploration Fund

COAL EXPLORATION REQUIREMENT	Unit Cost	Total Units	Total Cost	NOTES
Drilling Equipment				
Core Drills	\$250,000	3	\$750,000	should have at least a 500 m depth capacity and should be track mounted, all equipment must be identical model. If CBM exploration is intended, rigs will need a greater depth capacity, which means more expensive rigs and more expensive support supplies.
Drilling Equipment	\$2,500,000	1	\$2,500,000	Rods, core barrels, drill bits, core catchers, tools, repair and replacement parts, etc.
Consumables and annual maintenance	\$500,000	1	\$500,000	Drilling mud, diesel, lubricating fluids, etc. (Annual budget allocation will depend on anticipated usage)
core boxes (NX-NQ, 5000 m)	\$5.42	1650	\$8,943	
core boxes (NC-HQ, 5000 m)	\$6.49	1650	\$10,709	
Geologic Data Collection				
coal quality analysis (trace elements, full suite)	\$1,000	50	\$50,000	sent to international certified labs
Coal quality analyses	\$560	150	\$84,000	proximate, ultimate, forms S, total moisture, equilibrium moisture, free swelling, sent to international labs
biostratigraphy (palynology)	\$300	75	\$22,500	sent to international certified labs
biostratigraphy (forams)	\$135	100	\$13,500	sent to international certified labs
Field Gear for geologists	\$1,200.00	24	\$28,800	Basic suite of field gear
text books	\$350	24	\$8,400	
CBM Testing equipment	\$12,000	1	\$12,000	pressure vessels, constant temp baths, etc.
Geologic modelling software	\$8,500.00	4	\$34,000	
Computers	\$2,500.00	4	\$10,000	
Geophysical Data Acquisition				
Uphole acquisition unit with software	\$10,000	1	\$10,000	Uphole acquisition unit with software
WellCAD software w/modules	\$5,000	1	\$5,000	WellCAD software w/modules
Density + 1-arm caliper tool & accessories	\$35,000	1	\$35,000	Density + 1-arm caliper tool & accessories, calibration blocks & including source
Neutron tool	\$15,000	1	\$15,000	Neutron tool
Source & shield for neutron tool	\$40,000	1	\$40,000	Source & shield for neutron tool
Gamma tool, with subs	\$8,000	1	\$8,000	Gamma tool, with subs
Resistivity tool, with subs & bridle	\$10,000	1	\$10,000	Resistivity tool, with subs & bridle
3-Arm caliper, with subs	\$10,000	1	\$10,000	3-Arm caliper, with subs
Induction Conductivity, sub	\$26,000	1	\$26,000	Induction Conductivity, sub
Deviation Tool, subs	\$16,000	1	\$16,000	Deviation Tool, subs
DLL3 (lateral) Tool, subs	\$12,000	1	\$12,000	DLL3 (lateral) Tool, subs
Field accessories, tools, etc.	\$5,000	1	\$5,000	Field accessories, tools, etc.
1000 meter winch	\$15,000	1	\$15,000	

COAL EXPLORATION REQUIREMENT	Unit Cost	Total Units	Total Cost	NOTES
TRAINING REQUIREMENTS				
Coal Geology Training	\$1,500	450	\$675,000	Training in coal geology - sedimentology, stratigraphy, depositional environments, geologic modelling, coal as a physical material, resource calculation methodology, drill site geology, CBM testing,
Travel	\$3,000	7	\$21,000	
Lodging and M&IE	\$202	450	\$90,900	
Driller Training	\$1,500	730	\$1,095,000	Master driller will be employed to train a team of drillers how to drill for coal specifically and how to deal with the kinds of problems that will encounter when drilling, and equipment repair and
Travel	\$3,000	8	\$24,000	
Lodging and M&IE	\$202	730	\$147,460	
Coal Analysis Lab Training	\$1,500	120	\$180,000	Assuming a coal analysis lab is purchased
Travel	\$3,000	3	\$9,000	
Lodging and M&IE	\$202	120	\$24,240	
Geophysical Instrument Training	\$1,500	30	\$45,000	Assuming geophysical tools purchased
	\$3,000	3	\$9,000	
	\$202	120	\$24,240	
GRAND TOTALS				
Equipment & services purchased as soon as possible (gray highlight)			\$263,200	costs exclusive of shipping
Training to be implemented as soon as possible (gray highlight)			\$786,900	
Equipment & services purchases in later phases (pink highlight)			\$3,976,652	costs exclusive of shipping
Training implemented in later phases (pink highlight)			\$1,557,940	

Appendix 4: Further HR and Organisational Development Considerations

This appendix details important complementary information to support the strategy implementation in regard to issues of a Human Resource and Organisational Development nature.

Included herein are the following:

a) Organisational Charts:

- Long-Term Organisational Structure Chart;
- Proposed Organisational Structure – Technical Department 1;
- Proposed Organisational Structure – Technical Department 2;
- Proposed Organisational Structure – Finance & Accounting Department;
- Proposed Organisational Structure – Administration and Human Resource Departments;
- Proposed Organisational Structure – Health, Safety & Environment Department;
- Proposed Organisational Structure – Sub-Contracted Supply Department;
- Proposed Organisational Structure – Exploration Department.

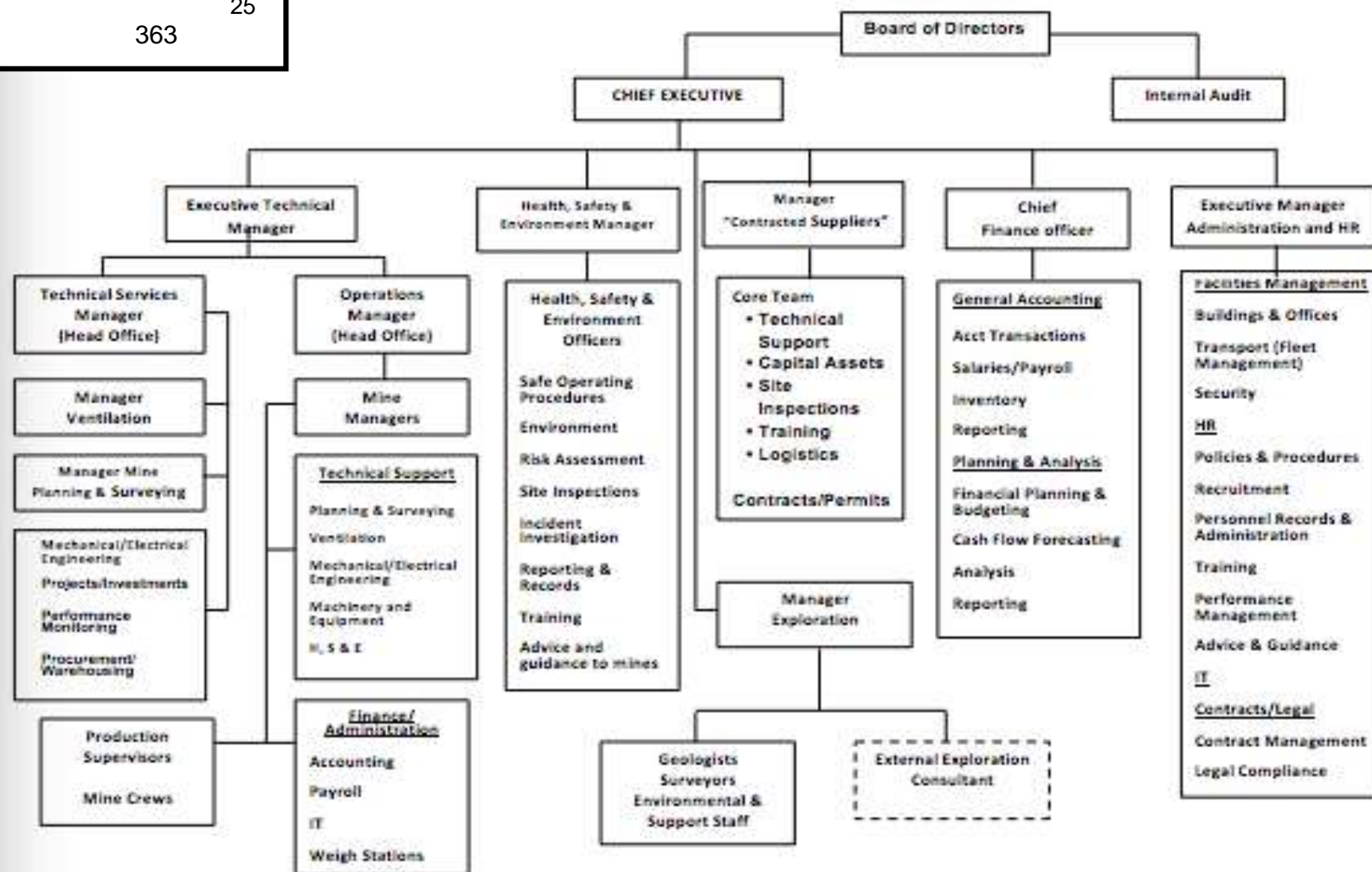
b) Training Needs;

c) Roles of the HR Department.

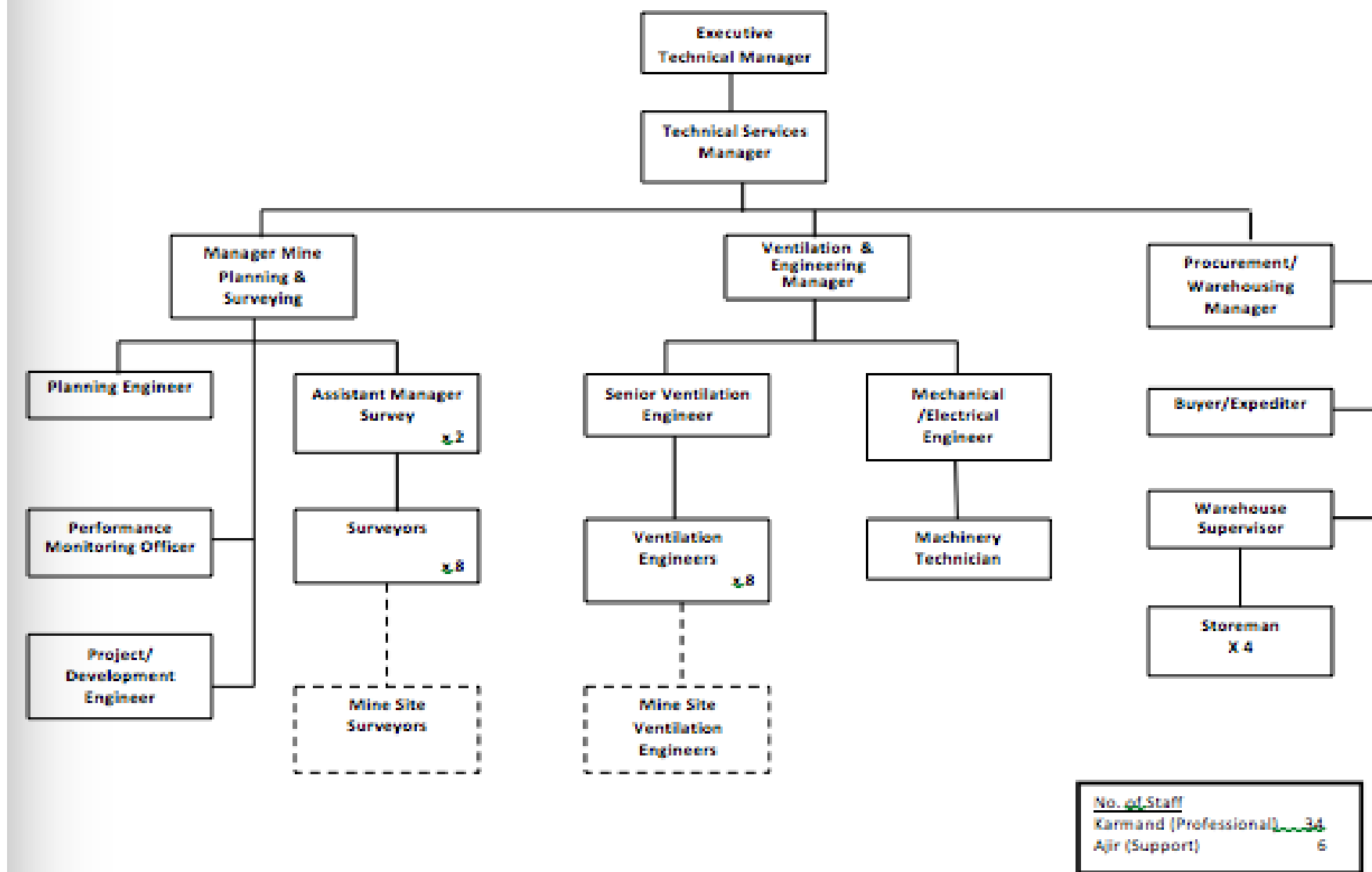
No. of Staff

Karmand (Professional)	295
Ajr (Support)	43
Drivers	25
TOTAL	363

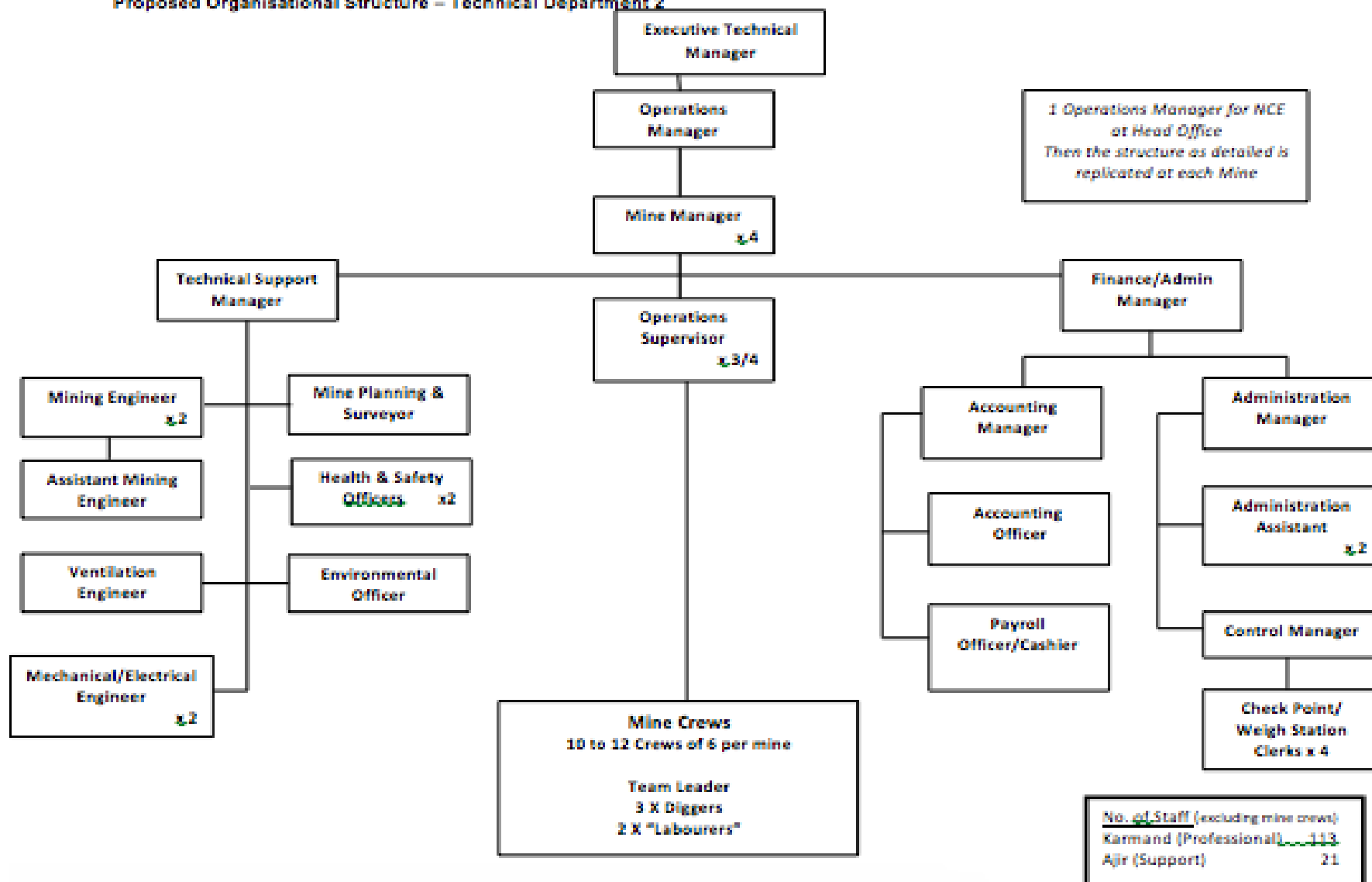
Proposed Long Term Organisational Structure



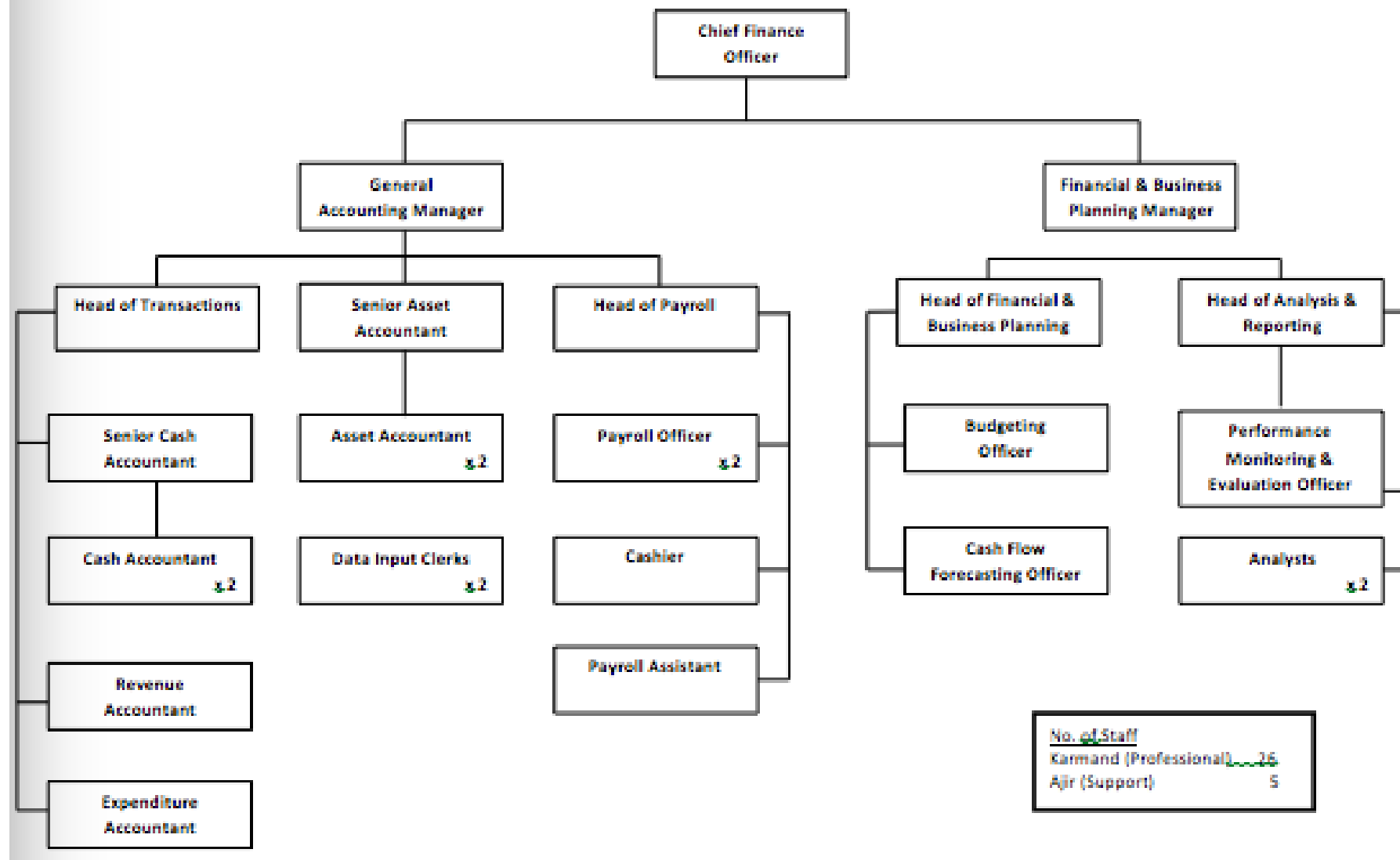
Proposed Organisational Structure – Technical Department 1



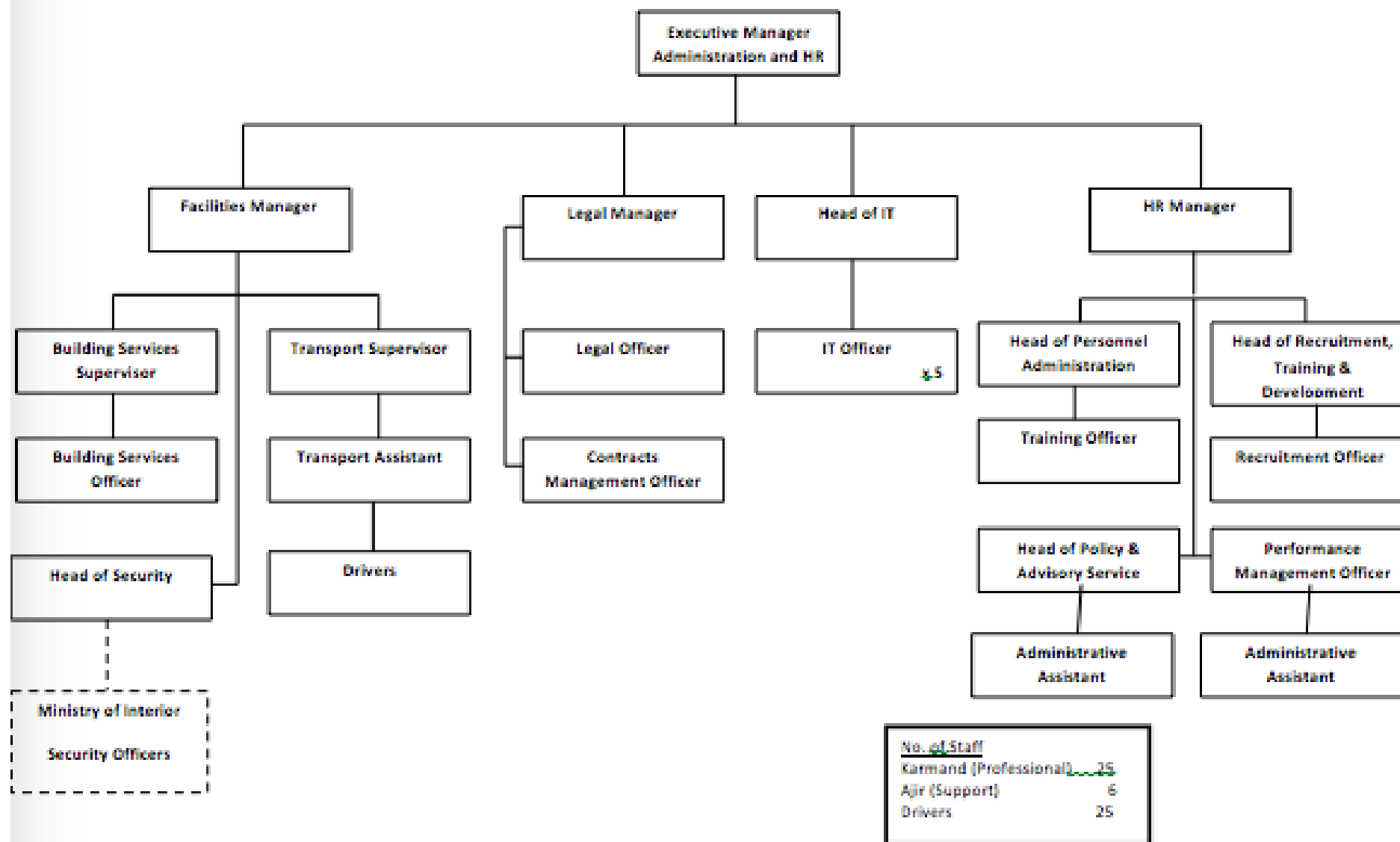
Proposed Organisational Structure – Technical Department 2



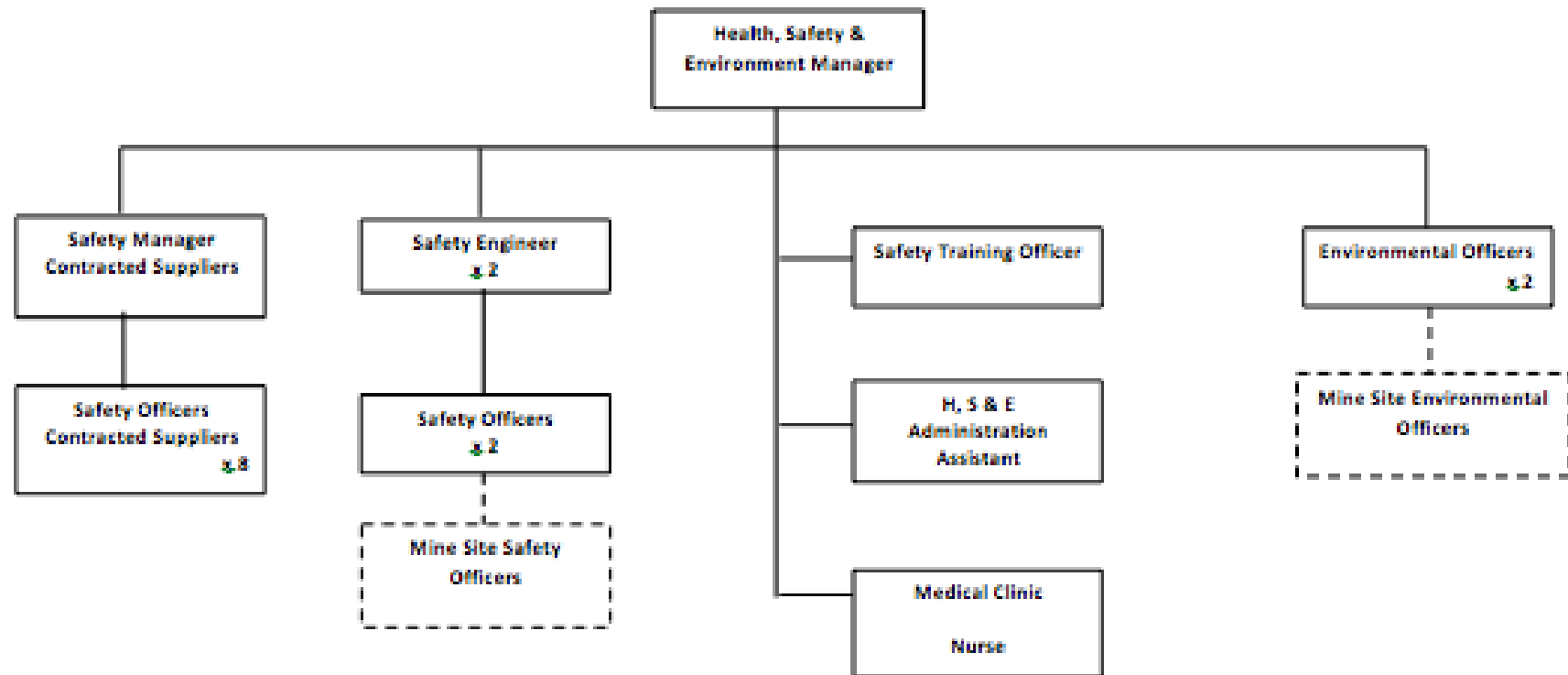
Proposed Organisational Structure – Finance & Accounting Department



Proposed Organisational Structure – Administration and Human Resource Departments

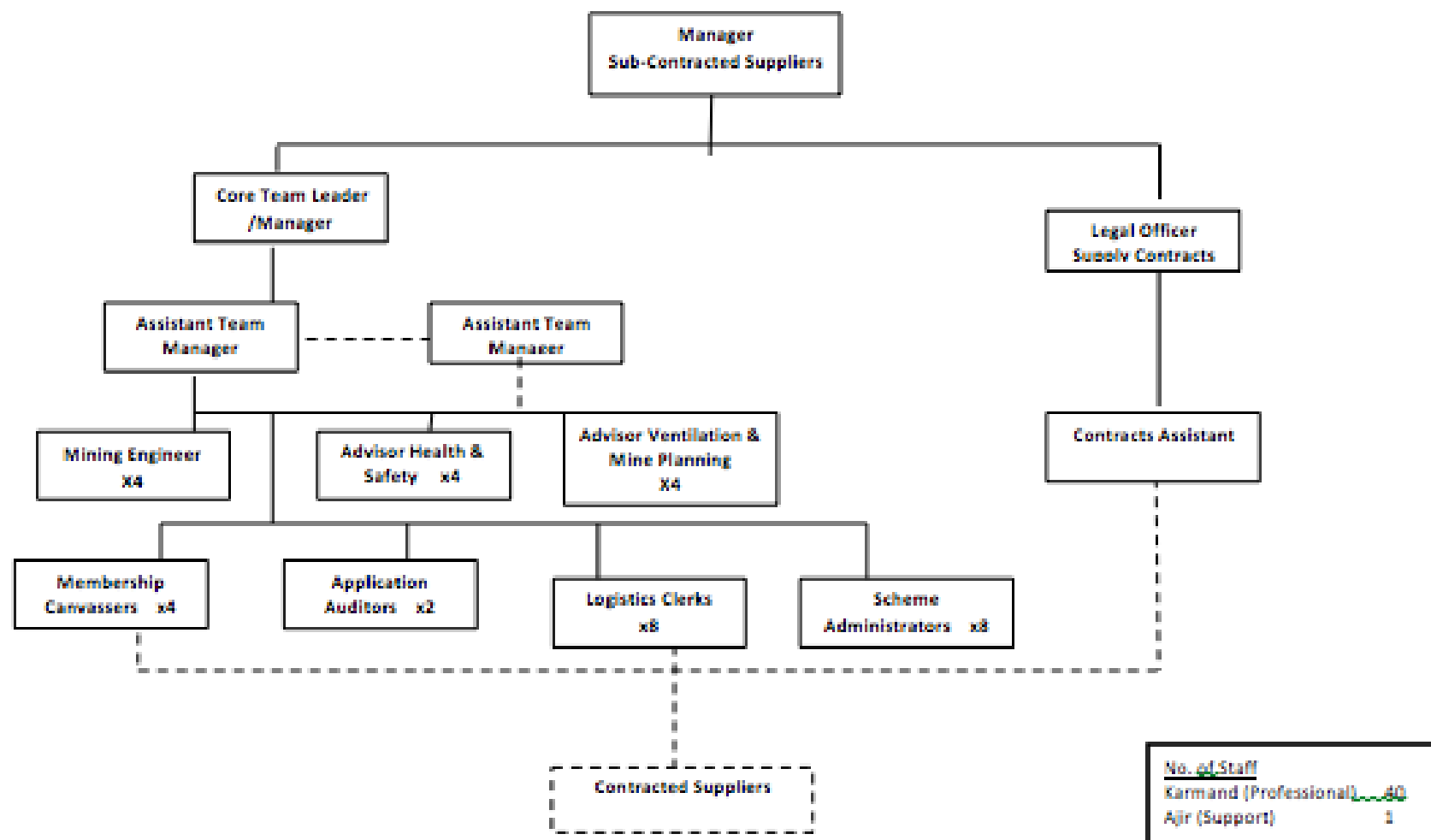


Proposed Organisational Structure – Health, Safety & Environment Department

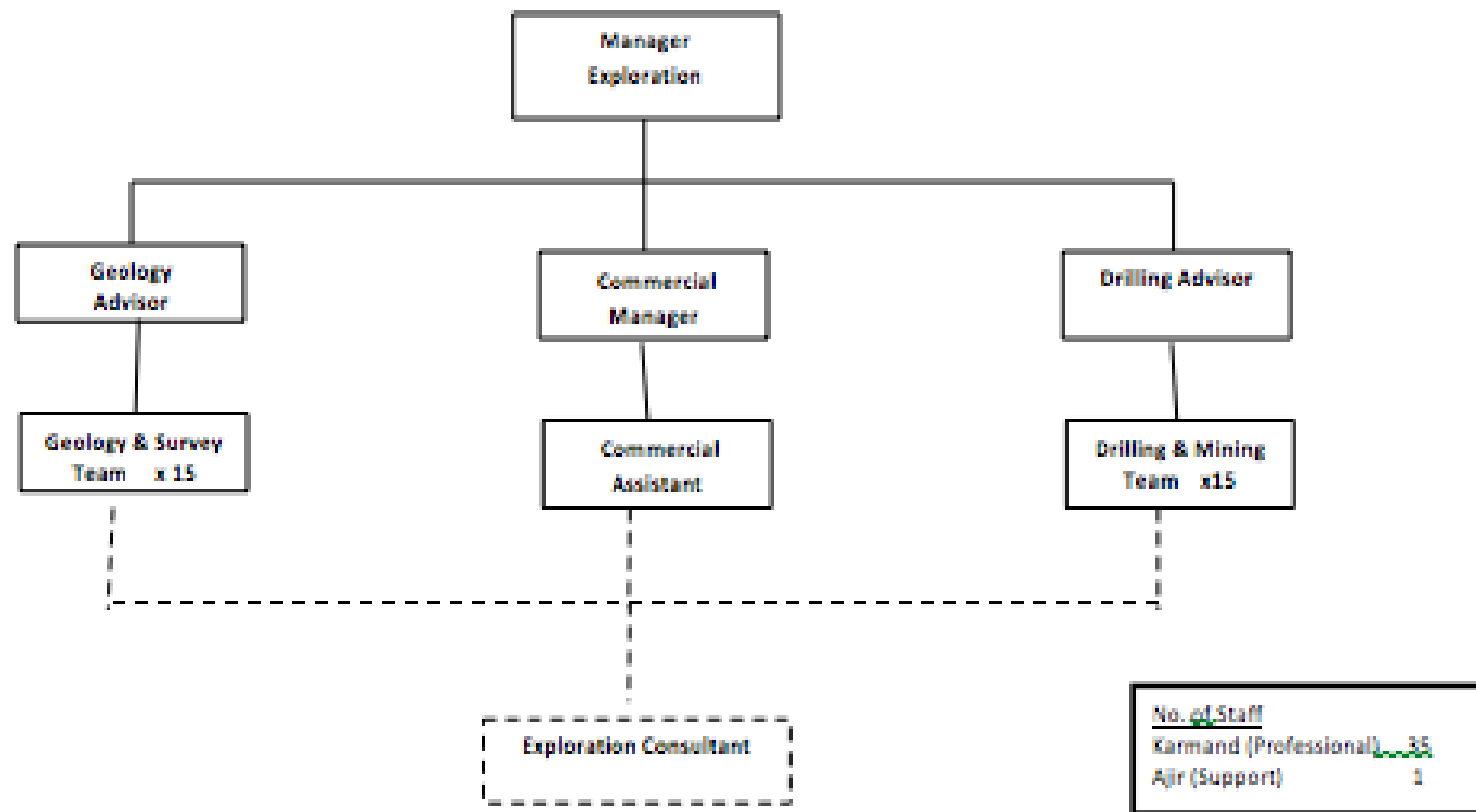


<u>No. of Staff</u>	
Karmand (Professional)	20
Ajir (Support)	3

Proposed Organisational Structure – Sub-Contracted Supply Department



Proposed Organisational Structure – Exploration Department



b) Training Needs

As indicated NCE will benefit from a long-term, comprehensive capacity development programmes. It is recommended that this programme be carefully planned to include inputs from specialist training and technical experts and to include a combination of:

- Attendance at and completion of, generic business, management and technical trainings offered both internationally and locally by competent, reputable training organisations (there are many providers in India and the middle east region specialising in business courses and mining and engineering courses);
- On-the-job training where a specialist expert is engaged to supervise, advise and monitor performances of identified individuals to impart skills and knowledge;
- Informal discussions, coaching and sharing of information between hired experts and local staffs to increase knowledge and enhance thinking capacity and decision-making. Informality is a less-clearly documented technique but is invaluable to motivated and educated individuals aspiring to learn new ideas and methodologies across a range of disciplines;
- Formal workshops, training sessions, courses and NCE-specific programmes, targeting identifiable groups of NCE employees and directly aimed at skills areas known via the training needs analysis and skills gaps conclusions to be essential needs for NCE. These workshops should include necessary soft, interpersonal skills, management skills as well as business specific and technical skills as necessary.

Some examples of the softer skills training areas to be covered include:

Organisation and Coordination

Central to the ultimate success of any organisation is the ability to organise and facilitate the functioning of the sections, departments, units and staff engaged within them.

Thus organisation and coordination skills of all managers, supervisors and team leaders are important to include topics such as:

- Time Management;
- Running Successful Meetings;
- Delegation;
- Work Planning;
- Decision Making;
- Conflict Management.

Leadership and Motivation

It is equally important that managers and supervisors should be able to lead and motivate their team members to fulfil their roles and responsibilities.

As a starting point a formal course of instruction in some of the key theories that underpin leadership and motivational techniques is recommended to include:

- Leadership Styles;
- Setting Goals & Prioritising;
- Delegation and Use of Resources;
- Progress & Feedback;
- Innovation & Creativity;
- Motivational Techniques e.g. recognition, empowerment, transparency etc.

Teamwork

Just as important as the ability to lead a team, is the ability of the members of that team to work together collectively to achieve their common goals. An awareness of and attention to the theories and concepts of teamwork would be beneficial. In this respect the following topics, amongst others, should be covered in a formal course of instruction:

- Effective Teams;
- Team Membership & Characteristics;
- Improving Team Performance;
- Team Goals and Objectives.

Communication and Presentation Skills

The importance of communication and the ability to communicate effectively have long been recognised as critical to the success of any organisation or group of people. There are certain skills required to ensure that communication and presentation is conducted effectively and a formal training course to instil these techniques is recommended including topics such as:

- Written and Verbal communications;
- What to communicate and why;
- Target audience;
- What medium to use to communicate;
- Presentation Skills.

Training Needs Assessment

Anyone in a leadership role must assess on a continuous basis the existing skills and abilities within the team or work group to identify weaknesses and determine any training required to instil and/or develop the required competencies.

In this respect managers, particularly, should have an understanding of how to conduct a Training Needs Assessment, which can be assimilated through a formal training course covering:

- The Training Cycle;
- Alignment of Training with Business Needs;
- Scope of the Assessment;
- Required vs. Existing Skills;
- Identification of Gap and Training Needs.

Some examples of the business management and technical skills training areas to be covered include:

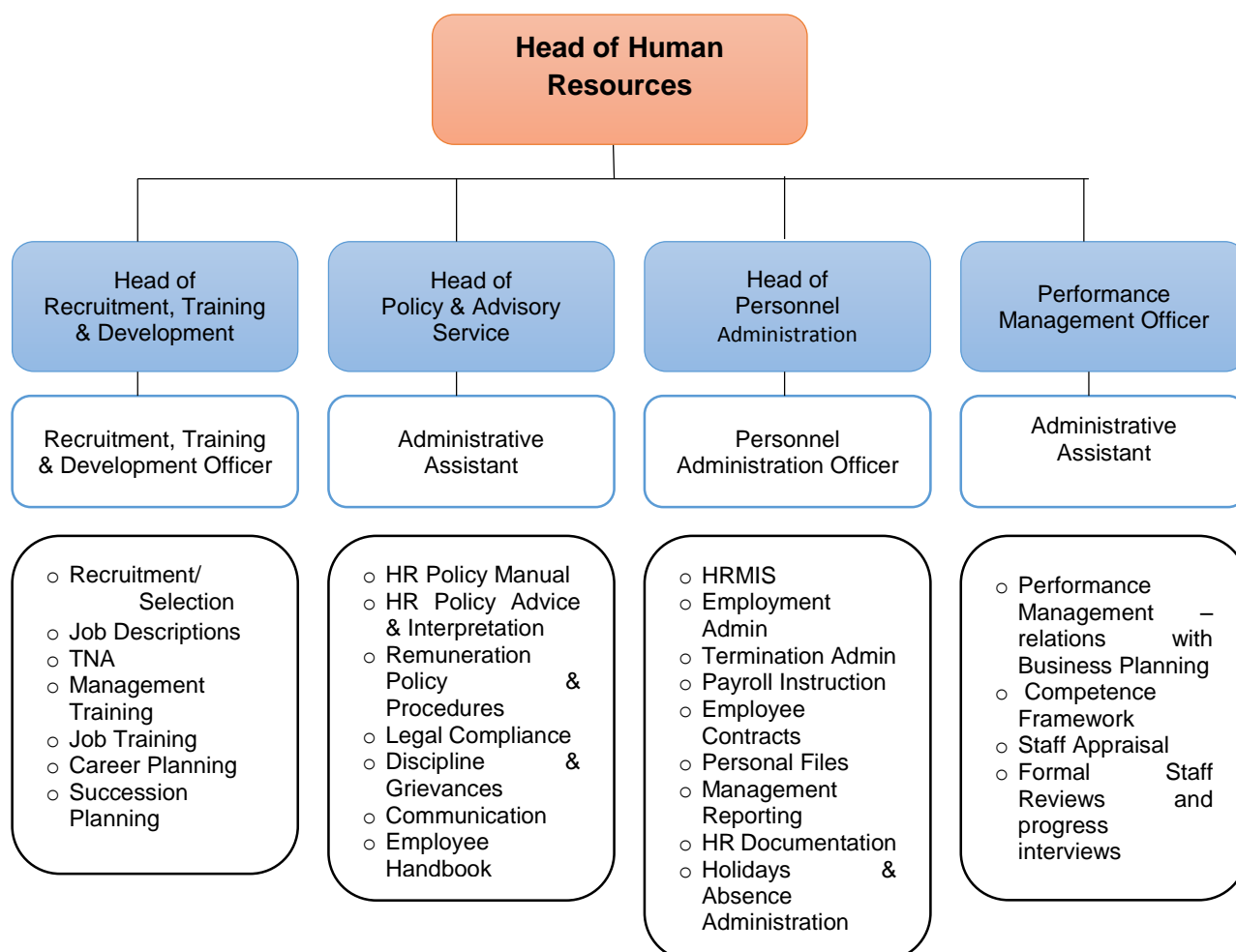
- Management/Supervisory;
- Financial Management & Reporting;
- Accounting (international Standards);
- Business Planning;
- HR Management;
- IT (multiple courses on IT usage and administration)⁶⁰
- Contracts Management;
- Mining Engineering;
- Ventilation;
- Surveying;
- Mine Safety;
- Mine Rescue;

⁶⁰ See project Report on Information Technology

- Coal storage, handling and transport;
- Mining methodologies;
- Mine construction and maintenance;
- Environment needs;
- Exploration Geology;
- Exploration Surveying;
- Exploration Drilling.

c) Roles of the HR Department

The following chart depicts the roles and functions of an effective HR Department that NCE should achieve over the 5-year transition/reform period.



d) Summary of Key Roles and Responsibilities

Recruitment, Training & Development

- To manage the recruitment and selection process and associated administration;
- To manage a robust recruitment procedure to attract the best candidates from the marketplace, promoting a commitment to truly transparent and fair competition for all positions and the introduction of interviews to the process;
- To determine training needs and develop and arrange delivery of training programmes;
- To develop individual job descriptions for the different positions within the HR section and to update as necessary all job descriptions using the approved templates;
- Conduct a series of Awareness Training sessions to provide management and supervisory staff with an insight into the functions of a modern HR Management department and the benefits to be derived within NCE from the establishment of such a unit;
- There is an ongoing need to identify and monitor, on an individual basis, the training needs of all staff. Such needs should be established using the Training Needs Assessment system;
- To manage the annual training plan and associated budget, based on the needs assessment, and to ensure that allocated funds are correctly disbursed for the intended training purposes.

Policy & Advisory Service

- To develop and oversee the implementation of personnel policies and practices in compliance with the Labour Code and any other relevant legislation and/or regulations;
- To provide advice and guidance on HR issues to all levels of management assisting them to fulfil people management responsibilities;
- To prepare and maintain a Human Resources procedures manual as a management tool for the use of managers and an Employee Handbook as an informative guide for employees;
- To assist managers in the resolution of employee grievances and in the handling of disciplinary issues;
- Remuneration and benefit practices within NCE need review to ensure they are applied consistently and fairly across the organisation within the constraints of relevant legislation;
- Non-monetary forms of reward/motivation should be introduced such as delegation of authority, greater individual involvement, recognition and influence in decision making.

Personnel Administration

- To maintain the HR Management Information System, prepare standard reports related to HRM activities and respond to ad hoc requests for non-standard information from Senior Management;
- To ensure that all HR/personnel files (electronic and hard copy) are at all times up to date and accurate to facilitate reference and information retrieval as required;
- To ensure that all employees are remunerated in accordance with company policy through the accurate and timely transmission of instruction to the payroll section;
- To prepare and update the organisation staff list and organisation charts to reflect any changes that may be approved.

Performance Management

- Establish a job evaluation system to support positioning in a grading structure and facilitate the introduction of remuneration and reward based on performance and contribution;
- To implement and administer a Staff Appraisal System to meet performance expectations at all levels and support appropriate remuneration and career development practices. The system should facilitate the assessment of individuals against their job description, the strategic objectives of their department/section and their individually agreed objectives for the time period in question;
- Communicate the appraisal system to all staff, on an ongoing basis, ensuring a fair and objective assessment of each individual against a common standard with a link between the performance assessment and reward.