

PROJECT DOCUMENT
OF
THE ASIAN INFRASTRUCTURE INVESTMENT BANK

Sultanate of Oman
Railway System Preparation Project

CURRENCY EQUIVALENTS

(as of 25 October 2016)

Currency Unit – Omani Rial (OMR)

OMR1.00 = US\$2.60

US\$1.00 = OMR0.38

ABBREVIATIONS

AIIB	–	Asian Infrastructure Investment Bank
EDMS	–	Electronic Document Management System
EIA	–	environmental impact assessment
EIRR	–	economic internal rate of return
EPC	–	engineering, procurement and construction
ESP	–	Environment and Social Policy
FIRR	–	financial internal rate of return
GAFTA	–	Greater Arab Free Trade Area
GCC	–	Gulf Cooperation Council
FTA	–	Free Trade Agreement
MTC	–	Major Tender Committee
MECA	–	Ministry for Environment and Climatic Affairs (Oman)
MOF	–	Ministry of Finance (Oman)
MOTC	–	Ministry of Transport and Communications (Oman)
NOC	–	no objection certificate
OGLG	–	Oman Global Logistics Group
OpCo	–	operations company
O&M	–	operation and maintenance
PMU	–	project management unit
PWC	–	PricewaterhouseCoopers
SEZ	–	Special Economic Zone
SEZAD	–	Special Economic Zone Authority of Duqm
SGRF	–	State General Reserve Fund
SOLS	–	Sultanate of Oman Logistics Strategy
UAE	–	United Arab Emirates

NOTE

In this report, “\$” refers to US dollars unless otherwise stated.

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1. PROJECT SUMMARY SHEET

Sultanate of Oman Railway System Preparation Project

Project No.	000014
Guarantor Borrower Implementation Agency	Sultanate of Oman Oman Global Logistics Group S.A.O.C. (OGLG) Oman Rail Company LLC (Oman Rail)
Sector/Subsector	Transport/Railway
Project Objectives/Brief Project Description	<p>The objective of the Project is to achieve full readiness for the construction of a new railway system that will support the Sultanate of Oman with the diversification of its economy and to develop the Sultanate of Oman's position as a transport hub and as an exporter of minerals.</p> <p>Following are the planned activities under the proposed project: (i) railway system design and procurement; (ii) institutional development for sector readiness; (iii) baseline surveys for land acquisition, socio-economic and environment; and (iv) legal services to support the development and finalization of all contracts needed for the construction and the commercial development of the new railway system.</p>
Project Implementation Period (Start Date and End Date)	1 January 2017 – 31 December 2018
Expected Loan Closing Date	30 June 2019
Project cost and Financing Plan	Project Cost: \$60.00 million Financing: AIIB = \$36.00 million (60%) OGLG= \$24.00 million (40%)
AIIB Loan (Size and Terms)	\$36 million The loan will have a single repayment at the end of loan term by June 15, 2023, and will be made on standard terms for sovereign-backed loans with the corresponding average maturity.
Co-financing	None
Environmental and Social Category	C
Project Risk (Low/Medium/High)	Medium
Additional Conditions for Effectiveness	The Implementing Agreement shall be executed between the Borrower and Oman Rail
Key Covenants	The Borrower shall: (a) ensure the environmental and social documents prepared under the Project will: (i) refer to the Environmental and Social Policy

	<p>and Standards; and (ii) include the use of public consultation and disclosure, as appropriate, to support the preparation of the studies.</p> <p>(b) ensure that the labor standards to be used for the Project are consistent with the provision of the Environmental and Social Management Planning Framework.</p> <p>(c) the construction of the new railway system that is anticipated to take place based on the result of and following the completion of the Project is carried out in accordance with the Environmental and Social Management Planning Framework.</p> <p>(d) All goods and consulting services required for the Project and to be financed out of the proceeds of the Loan shall be procured in accordance with the applicable requirements set forth or referred to in the Procurement Policy, the Procurement Directive and the Procurement Plan.</p>
Policy Assurance	The VP Policy and Strategy confirms an overall assurance that the Bank is in compliance with the policies applicable to the Project.

President	Liqun Jin
Vice-President	D.J. Pandian
Director General, Operations	Supee Teravaninthorn
Manager, Operations	Ke Fang
Project Team Leader	Shakeel Khan, Principal Investment Operations Specialist
Project Team Members	<p>Ian Nightgale, Procurement Advisor</p> <p>Kishor Uprety, Senior Counsel</p> <p>Rudiger Woggon, Lead Counsel</p> <p>Chongwu Sun, Senior Environment Specialist</p> <p>Somnath Basu, Senior Social Development Specialist</p> <p>Haiyan Wang, Senior Finance Officer</p> <p>Soon Sik Lee, Senior Investment Operations Specialist</p>

2. STRATEGIC CONTEXT

A. Country Context

1. The Sultanate of Oman (Oman) borders Saudi Arabia and the United Arab Emirates in the west; the Republic of Yemen in the south; the Strait of Hormuz in the north and the Arabian Sea in the east. The capital of the country, Muscat, is located in the north of the country. In 2015, Oman had a population of 4.4 million (56% Omani, 44% expatriate) and GDP of \$70 billion. With its per capita GDP of about \$16,000, Oman is considered a high income country. However, the country is mainly depending on oil exports as one third of the GDP and 80% of the public finances are derived from petroleum related products. In 2015, Oman produced about 981,000 barrels of crude oil per day. Due to recent drop in world oil prices, Oman operated at a budget deficit of OMR 4.6 billion (about \$12 billion) in 2015 despite the significant level of oil production.

2. Oil and gas account for almost 60% of Oman's exports. Imports largely comprise mechanical and transport equipment and base metals. Although Oman is blessed with significant mineral reserves that could generate enormous export revenue, mineral exports accounted for only 4% of the total exports in 2015. In order to reduce its dependence on oil, Oman plans to diversify its economy from exportation of crude oil to other mineral exports, manufacturing, logistic service arrangement, warehousing, fisheries, tourism as well as value added industry in the oil and gas sector such as downstream refinery, petroleum storage, and petrochemical plants. With three deep water ports and a favorable position on the Indian Ocean Rim outside of the Arabian Gulf, Oman is strategically positioned to export its natural resources, products and services to the Middle-east, northern Africa, and South Asia. Oman realizes its enormous potential through strengthening its logistics services and transforming the country to a global strategic logistics hub. In line with this, the Government of Oman (the Government) has planned to increase the production and export of construction materials and minerals such as dolomite, gypsum, and marble and prioritize the concurrent development of mineral connection railway line and the commercial terminal at Duqm Port so as to capture full benefits from such diversification. The Government is also committed to leverage Oman's strategic location to boost its role as a regional logistics hub through investments in large infrastructure projects such as the national railway network, inland and coastal logistics centers, and free trade zones.

3. Oman is a member of the Gulf Cooperation Council (GCC)¹ as well as the Greater Arab Free Trade Area (GAFTA)². As a member of the GCC, Oman enjoys several benefits such as free movement of Omanis between fellow member countries without visas, import of a majority of the goods produced within the GCC countries without duty, and allowance to own real estate in other GCC countries. Oman has also entered into a Free Trade Agreement (FTA) with the United States of America under which all tariffs on consumer and industrial products had been waived since 1 January

¹ GCC is a political and economic alliance of six Middle Eastern countries— Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and United Arab Emirates. The GCC was established in Riyadh, Saudi Arabia, in May 1981.

² GAFTA was declared within the Social and Economic Council of the Arab League as an executive program to activate the Trade Facilitation and Development Agreement that has been in force since January 1st, 1998. The GAFTA includes in its membership 17 Arab countries. There are: Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Tunisia, Qatar, Palestine, Saudi Arabia, Sudan, Syria, United Arab Emirates, and Yemen.

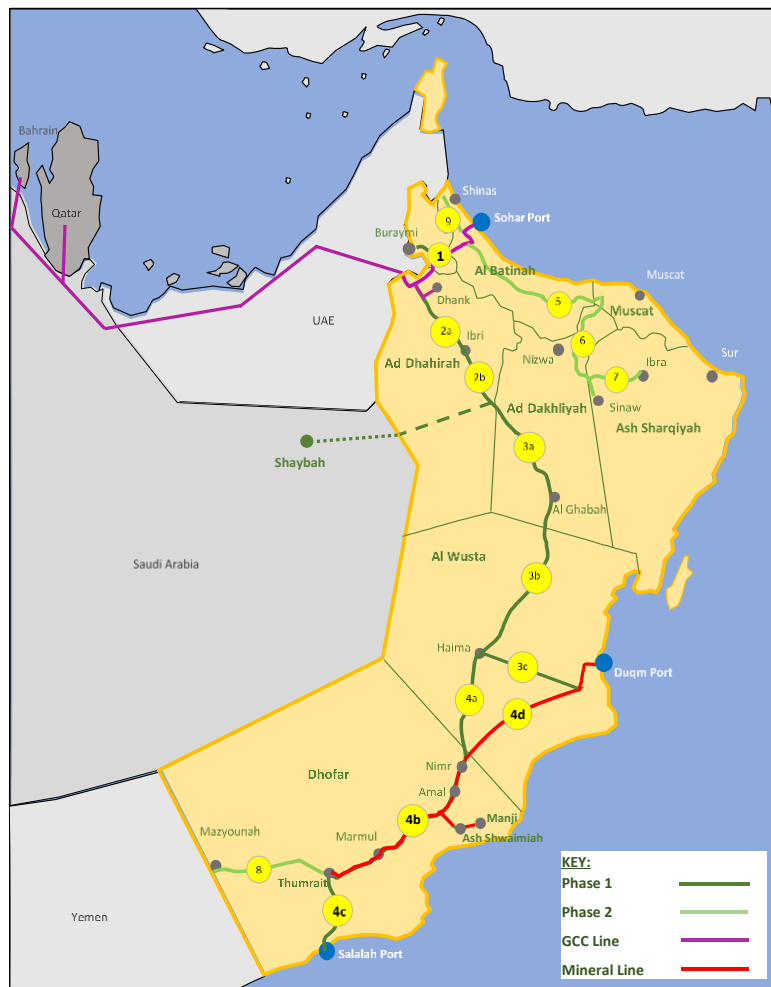
2009. An FTA with the European Union is also expected soon. These FTAs would effectively help to promote an attractive investment climate, and expand trade between the participating countries.

B. Sectoral and Institutional Context

4. In 2015, Oman’s Ministry of Transport and Communications (MOTC) produced the Sultanate of Oman Logistics Strategy (SOLS) as part of the national economic diversification strategy. The strategy identified that logistics could significantly enable the economy to diversify away from its dependence on oil and gas. SOLS aims to increase logistics contribution to Oman’s GDP from 5% in 2015 to 12% by 2040.

5. In order to strengthen Oman’s logistics offering and connect the country to the GCC rail network, the Government had set up a wholly owned Oman Rail Company S.A.O.C. in 2014. It is a company incorporated under the laws of Oman, not a government department, and was tasked with developing an overall rail network (about 2,135 km) in the country, which is to be completed through two phases. Phase 1 will connect Oman’s three deep seaports with the GCC railway network as well as with the inland mineral resources, and Phase 2 will connect various major cities of Oman. The Oman railway network has been divided into nine Segments (Figure 1). Segments 1- 4 are planned to be constructed under Phase 1 and Segments 5 to 9 under Phase 2.

Figure 1: Planned Oman Railway Network



6. In line with the decision of the Oman's Financial and Energy Resources Council, Oman Rail Company S.A.O.C. in June 2016 was renamed as Oman Global Logistics Group S.A.O.C. (OGLG) under the Companies Act. Subsequently, Oman Rail Company LLC (Oman Rail). OGLG is a wholly owned by the Oman's Ministry of Finance (MOF) and it owns Oman rail and 12 other entities, consolidating all the government investments in the ports, free trade zones, rail, maritime and land transport companies (Annex 7). A key mandate for OGLG is the implementation of the SOLS, under the direct supervision of the MOTC. A key drive in the implementation of SOLS will be to activate the role of the private sector in nurturing logistics through joint investments and innovation, as well as developing national capacity and capability in order to unleash the potential of employment opportunities. The Group is also mandated to take the necessary measures to implement the policies drawn by the government, including the coordination and integration between the government agencies concerned to achieve OGLG's investment and development objectives.

7. As a commercial entity, OGLG has more flexibility to tap additional resources, when needed, than would be the case if it was a government department. However, to procure any goods, works, and services, OGLG has to strictly follow Oman's Tender Law, which requires international procurement standards for ensuring fairness and transparency. The MOTC remains the regulator and policy setter across the logistics sector.

3. THE PROJECT

A. Rationale

8. As a result of falling oil prices, members of the GCC have agreed to defer the completion date of GCC railway from the existing target of end-2018 to a later date, to be decided by GCC members in the near future. In light of this revision, Oman Rail has prioritized the development of about 653 km long mineral lines with a view to providing low-cost rail transport connectivity to Oman's fledgling mineral industry by reducing logistics bottlenecks. These mineral lines are located from Thumrait in the south to Duqm Port via the mining areas of Ash Shuwaymiyyah and Manji. Construction will be divided into two stages. Stage 1, which is shown as Segment 4D in Figure 1, will be approximately 418km long, connecting Ash Shuwaymiyyah and Manji mineral areas to Duqm Port. Stage 2 (Segment 4b), will be approximately 235 km long, connecting the quarries around Thumrait to the junction of Stage 1 at Amal.

9. Duqm and its surroundings are rich in minerals attracting both local and foreign investment companies to operate at Duqm Special Economic Zone (SEZ). The port of Duqm is set to be a major port serving Duqm SEZ, its associated industries and the growing mineral industry sector exploiting the rich mineral ore reserves in and near the Al Wusta region. The Duqm Port is tasked to handle bulk dry cargoes with the aim to establish Duqm as a center for minerals export. Annex 8 provides the role of Duqm Port as a major facility for minerals export besides serving the SEZ industries and liquid bulk cargo.

10. **Complementary role of concurrent railway development and Duqm Port:** To handle dry bulk cargo, Special Economic Zone Authority of Duqm (SEZAD) and Oman Rail will work together to enable mineral exports through seamless transportation of products from the hinterland to the port for export. In this connection, the

development of railway system in general and mineral lines connections to Oman ports in particular is currently the Government's top priority, aiming to effect the efficient flow of mining cargo particularly to Duqm Port, from where materials will be stockpiled, processed and exported to markets worldwide. For this reason, the Government has requested AIIB's financial support for the Railway System Preparation Project (the Project) through OGLG and Oman Rail, and the interconnected Duqm Port Commercial Terminal and Operational Zone Development Project through SEZAD.

11. This innovative feature of advanced preparation of an investment project under the Project will expedite its implementation and secure the foundations of Oman's fledgling railway. It will have a direct impact on the economic returns given the urgent demand for mineral/bulk logistics solutions. Transportation of bulk cargo by rail - rather than road as at present – will save energy and also cause less environmental pollution. Thus support for such a project will demonstrate the Bank's lean and green initiatives in the region. The Project will help create the first railway system in Oman, a truly transformational economic initiative to diversify the economy through logistics development and mineral exports.

12. Given the above, the Project is clearly aligned with AIIB's mission, i.e., to promote and strengthen economic growth of Asia through investment in infrastructure. Furthermore, the Project will help Oman prepare to develop a world class railway network and manage it in a highly professional manner. Also it will help to acquire latest railway technology with modern safety and operating system, and loading and unloading terminals of International Standard. Moreover, this loan assistance will open-up several investment opportunities for both public and private sectors operations, where AIIB will also be in a position to play a major role.

B. Objective

13. The objective of the Project is to achieve full readiness for the construction of a new railway system that will support the Sultanate of Oman with the diversification of its economy and to develop the Sultanate of Oman's position as a transport hub and as an exporter of minerals. This readiness comprises: (a). completion of design and tender documents for the intended Engineering, Procurement, and Construction (EPC) contracts for the mineral lines; (b) advance procurement for the works, goods and services; and (c) capacity building of Oman Rail in institutional, regulatory, operational and commercial development for ensuring the sustainability of railway operations.

C. Project Description and Components

14. The Project will take advantage of the preliminary design previously completed by international railway consultants Italferr in 2014-15. This design, however, was developed to the GCC railway requirements with an alignment to achieve interoperability of GCC passenger and freight services. The Project will optimize the alignment and design standards in order to achieve a best-value solution in support of the mining sector. The design of the national rail network will be in full compliance with the technical and functional standards and specifications of the GCC Common Guidelines of the GCC Railway Project (July 2012), thereby promoting interoperability and compatibility with the future phased developments of the entire Oman Rail Network.

15. The key objective of institutional development for sector readiness is to build up and manage the OpCo responsible for the freight and network operations and maintenance while ensuring sufficient knowledge transfer and capability building of Oman Rail's team enabling Oman Rail to ultimately run the OpCo independently.

16. Following are the planned activities under the Project:

Part 1. Consultancy Service

- a) **Railway System Design and Procurement:** This includes the provision of technical, environmental, social and commercial advisory services for the entire railway system design and procurement, including, inter alia, the engineering services for the railway system development, including infrastructure, rail compatible mining and industrial terminals, and port rail terminals and facilities, development of planning activities supported by specialized simulations in order to define the specific terminal and facility types required to develop the operations of Oman Rail heavy haul freight systems, mixed use systems and mass transit systems.
- b) **Institutional Development for Sector Readiness:** This includes the provision of advisory services to support the institutional development required for operating and maintaining freight and network operations, including, inter alia, (i) assistance with creating the organization and ensuring operational readiness for freight and network operations and maintenance; (ii) ensuring the provision of safe and efficient operation and maintenance (O&M); (iii) development of a profitable business plan and a successful disengagement and handover of the freight and network to Oman Rail; (iv) training and capacity building of Oman Rail's employees through suitable staff development, and performance management; (v) providing rail expertise to support functions to support freight and network operations.
- c) **Baseline Surveys (land, socio-economic, and environment):** This includes
 - (i) Carrying out route surveys of all affected lands and properties, data acquisition from authorities and land owners, plot and land inventories, field verification, and aerial mapping, based on which the resettlement and land acquisition framework/plan will be prepared by the relevant authorities; and
 - (ii) Carrying out the following activities (1) the preparation of environmental and social studies for planning and preparation of the railway network, such studies to include the preparation of a strategic environmental and social assessment, project specific environmental and social assessment, environmental and social management plan and a resettlement and land acquisition framework/plan, and (2) training of the Borrower's and Oman Rail's staff on these issues, and advisory support.
- d) **Legal Services for Preparation of Contracts:** This includes the provision of legal services to support the development and finalization of all contracts needed for the construction and the commercial development of the new railway system, including profiling forms of contracts, determining Oman Rail's risk appetite and allocation, drafting contracts and assisting with the negotiation of contracts, performing legal due diligence on major construction tenders, and any related services as required.

Further details of Part 1 are provided in Annex 2.

Part 2. Office Equipment

This part includes the procurement of miscellaneous office equipment required for the day-to-day Project activities.

Part 3. Project Management

This includes the provision of technical advisory services and logistical assistance for the management of the Project.

D. Cost and Financing

17. The total project cost is estimated at \$60.00 million (approximately OMR 23.08 million) as detailed in Table 1.

Table 1: Project Cost and Financing (\$ million)

Item	Cost	Financing			
		AIIB		OGLG	
		Amount	Share	Amount	Share
A. Consultancy Services					
1. Railway system design and procurement	15.000	15.000	100%	-	-
2. Institutional development for sector readiness	9.100	9.100	100%	-	-
3. Baseline surveys (land, socio-economic, and environment)	1.180	1.000	84.7%	0.180	15.3%
4. Legal service for procurements	1.040	1.000	96.1%	0.040	3.9%
B. Office Equipment	0.150	0.150	100%		0%
C. Project Management ^a	28.751	4.971	17.3%	23.780	82.7%
Total Base				24.000	
Cost	55.221	31.221	56.5%		43.5%
D. Contingencies ^b	3.745	3.745	100%	-	-
E. Interest and other charges under the Loan ^c	1.034	1.034	100%	-	-
Total	60.000	36.000	60%	24.000	40%

^a This refers to project preparatory and management cost, which has been expended by OGLG for advance preliminary design, surveys, preparation of draft procurement documents of some priority segments, procurement for the Segment 1 and its procurement, ongoing design for all other segments, and preparation of Request for Proposals (RFP) for design consultants and initial surveys, and overall project administration.

^b Contingencies are 12% of the AIIB funding

^c Including estimates on interest during implementation, commitment charge, and front-end fee based on approved Bank policies. The financing charges to be capitalized in the loan.

Source: AIIB and OGLG estimates

18. A loan of \$36 million from AIIB has been requested by the OGLG through the Ministry of Finance to help finance the Project. The OGLG has provided counterpart financing of \$24.000 million for ongoing project preparatory and management cost, which has been expended for preliminary design, preparation of tender documents and procurement for Segment 1, ongoing design work for other segments, and Request for

Proposals for design consultants; and initial surveys and overall project administration costs so far. The loan will have a single repayment at the end of loan term by June 15, 2023 and will be made on standard terms for sovereign-backed loans with the corresponding average maturity. Any shortfall in the funds required would be covered by the OGLG.

E. Implementation Arrangements

19. The OGLG and Oman Rail will be the executing and implementation agencies, respectively for the Project. Oman Rail has already established a project management unit (PMU) with the core disciplines including project management and control, engineering, rail operations, finance and health, and safety and assurance. The size of the PMU team is currently scaled for the development phase. In addition, the project control systems have already been developed by Oman Rail as part of the commitment to delivering the GCC rail network. The Project Management Information System for elements such as scheduling, risk management and cost control are already established. Oman Rail will monitor and evaluate the progress of the Project and prepare the project report. Each project report will cover the period of one calendar quarter, and shall be furnished to AIIB within two weeks after the end of the period covered by such report.

20. The OGLG will maintain separate accounts for the Project and have such accounts audited annually. The audited Financial Statements for each such period will be furnished to AIIB not later than six months after the end of such period. To that end, OGLG will continue to engage independent auditors, whose terms of reference, qualifications and experience are acceptable to AIIB.

21. To avoid initial start-up delays relating to the implementation of the ensuing project for the physical works, the PMU will ensure that all EPC contracts and also the project management consultants contract are awarded before the effectiveness of the loan for the ensuing project.

22. All the activities under the Project are planned to be completed by December 2018. OGLG has also made its firm plans to complete the ensuing investment project by December 2021, as directed by the Government. Summary of the implementation arrangements for the proposed development phase of the project is in Table 3.

Table 3: Implementation Arrangements

Aspects	Arrangements
Implementation period	1 January 2017 – 31 December 2018
Loan closing date	30 June 2019
Management	
(i) Oversight body	Ministry of Transport and Communications
(ii) Executing agency	OGLG
(iii) Implementing agency	Oman Rail
Procurement: Goods and services	All goods and services to be financed by the Bank will be procured in accordance with AIIB's procurement policy and directives.
Advance contracting	Activities for inviting proposals for project consultancy services and procurement of office equipment have to be approved by AIIB.

Aspects	Arrangements
Disbursement	The loan proceeds will be disbursed in accordance with the AIIB's disbursement letter agreed upon between OGLG and AIIB and the Loan Disbursement Manual.

4. PROJECT ASSESMENT

A. Technical

23. The Mineral Line proposal is founded on the demand to move large volumes of bulk minerals for export via Duqm Port. The projected annual tonnages start at 3 million increasing to 56 million tonnes by 2032. Whilst the railway will be configured for bulk mineral movements, it will also accommodate rail freight and container traffic for the regional oil and gas fields managed by Petroleum Development Oman and Occidental Petroleum.

24. The railway corridor and alignment will take advantage of the preliminary design previously completed by international railway consultants Italferr in 2014-15. This design, however, was developed to the GCC railway requirements with an alignment to achieve interoperability of GCC passenger and freight services. It is therefore, necessary to optimize the alignment and design standards in order to achieve a best-value solution in support of the mining sector.

25. To develop and finalize the rail solution Oman Rail will appoint railway system design and procurement consultant to perform engineering and design services. Amongst many professional areas, these services will include operational simulation and modelling, rail alignment, infrastructure design, bulk loading/unloading terminal design, railway facility requirements and train control systems. The priority alignments for development are Segment 4D and other sections of Segment 4, which constitute the "Mineral Line". The ultimate objective of this stage will be to finalize an EPC tender with all technical and financial components

26. At completion of the total Mineral Line railway will be approximately 653km long. It is expected that it will be a single track railway with a 40 ton axle load and passing loops located approximately every 30 kilometers. The alignment will extend from Thumrait in the south to Duqm via the mining areas of Ash Shuwaymiyyah and Manji. Construction will be divided into two stages. Stage 1 will be approximately 377km long, connecting the Port of Duqm to Ash Shuwaymiyyah and Manji. Stage 2 will be approximately 276 km long, connecting the quarries around Thumrait to the junction of Stage 1 at Amal.

B. Economic and Financial

27. Financial and economic rate of return analyses carried out by OGLG through international consultants, PricewaterhouseCoopers (PWC) and Burohappold Engineers, respectively in 2015 showed robust economic rate of return in excess of 50% for Segments 1 and 4 respectively. This clearly demonstrates that a mineral line in the south of Oman (Segment 4) and connection to the GCC network (Segment 1) will bring significant economic value to Oman and attractive financial return to the government.

28. The economic returns from each segment are derived from reduced road transport costs (safety, environmental, lower maintenance) and the benefit of the

infrastructure investment itself on the country's economy. From the Project perspective, Segment 4 derives the majority of its revenues from the mineral sector. Segment 1 offers the most efficient logistics option for GCC countries via a port (Sohar) and is the most profitable of all of the segments. Although equity and project returns on Segment 4 are lower than Segment 1, there is material value to the economy through debottlenecking of the mineral industry logistics and diversifying the economy. These analyses will be revisited during the implementation of the proposed project, using the updated designs, and respective costs and benefits³. Further details are in Annex 3.

C. Fiduciary and Governance

a) Financial Management

29. Financial management system (FMS) of OGLG is computerized. It produces the necessary financial reports of the ongoing development works. The staff is adequately trained to maintain the FMS in accordance with the organizational requirement and safeguard the confidentiality, integrity, and availability of the data.

30. Oman Rail's Finance Department (supported by OGLG), who oversees funds flow, is staffed with experienced financial specialists who are experts in managing the internal finance and have international financing experience. All employees are full time with formal job descriptions for each position. Segregation of duties is specified in Accounting Procedures which follows Company's Accounting and Treasury Policies. A separate financial management manual is planned to be established for the Project in accordance with AIIB requirements. An Internal Audit function is provided by PWC. For the external Audit, there are two layers, first it is carried out by the State Audit Institution of Oman, which is followed by an independent international auditing firm (currently KPMG).

31. Financial statements are currently prepared for OGLG on monthly and annual basis. It is envisaged that the existing reporting system will be linked with the financial information of physical project progress through a relatively simple file transfer process on a monthly basis from a Project Management Information System such as ACONEX. Oman Rail has enough capability to smoothly work under the Project with the training designed through AIIB during the first mission at the beginning of the project implementation and also by the project management consultants during project implementation. Annex 6 provides the summary of financial management assessment

b) Procurement

32. As allowed under Oman Law, OGLG as a 100% government- owned entity, has its own Major Tender Committee (MTC) whose mandate is described in the company's procurement policy. The MTC comprises Board members, members from private industry and the company's CFO. Prior to the full tender the company goes through a process to prequalify potential bidders. The prequalification proposal is published in international journals and the evaluation process for prequalification is

³ The economic rate of return is estimated using the U.K. government's 'Green Book' guidelines with regards to assessing and measuring economic impact and project evaluation. These guidelines allow inclusion of benefits during the construction stage because the benefits are estimated from the direct wages paid to employees working in the project, indirect impacts stemming from payments to businesses from which the project buys goods and services during construction, and induced impacts of expenditures made by direct and indirect employees in the economy, also known as multiplier effects.

rigorous. The scoring framework for evaluation is pre-defined in the prequalification document that is issued to potential tenderers. The evaluation of the prequalified and final tenders is subject to detailed State Audit as well as internal investigation through the MTC.

33. OGLG has commenced procurement of one of the four packages under the Project which is related to “a multifunctional consultancy contract” on an advanced contracting basis and in accordance with its own procurement procedures. OGLG have informed the Bank that the tender has followed an international open competitive tender process for which there were no country eligibility restrictions. As a first step of the tendering process, the prequalification proposal was published in local newspapers and international journals. A total of 44 international and local firms have purchased the tender as of mid-November. The pre-qualification tender deadline is 8 December 2016. The evaluation will identify three suitably qualified firms for a framework contract arrangement where secondary call off contracts for a variety of required services will be tendered competitively between the three pre-qualified firms. The resulting contracts will be subject to the requirements of the Interim Operational Directive: Procurement Instructions for Recipients and the award of contracts will be subject to the Bank’s review. OGLG will conduct the procurement of all the remaining consulting services packages required for the Project to be financed out of the proceeds of the Loan in accordance with the Banks’s Procurement Policy, Interim Procurement Directive and the Procurement Plan agreed between AIIB and the OGLG. The consultants’ services shall be procured under contracts awarded on the basis of Quality Cost-based Selection. In view of the small size of goods to be procured under the Project, contracts would be awarded on the basis of national procurement procedures acceptable to AIIB.

34. Although not explicit in the policy, relevant provisions of AIIB’s Policy on Prohibited Practices will be included in the particular conditions of the contract of the successful tenderer, including the right to audit or inspect a firm’s documents, if AIIB is required to conduct an investigation under this policy.

D. Environmental and Social

35. The Project has been placed in Category C under the provisions of AIIB’s Environmental and Social Policy (ESP), since this is a preparatory phase that supports studies, institutional development and capacity building, and no physical works are to be carried out during these studies. Activities under the Project will support the preparation of environmental and social studies for planning and preparation of the railway, training of OGLG and Oman Rail staff on these issues, and advisory support. It is anticipated that studies would include the preparation of a strategic environmental and social assessment, project specific environmental and social assessment, environmental and social management plan and a resettlement and land acquisition framework/plan. The environmental and social documents prepared under the Project will refer to relevant Omani legislation and the ESP. This will include the use of public consultation and disclosure, as appropriate, to support the preparation of the studies.

E. Risks and Mitigation Measures

36. **Credit Risk Consideration for Oman.** Currently Oman’s sovereign credit

risk rating is BBB- with a stable outlook. Despite the fact that the country's sovereign credit risk rating has experienced 3 downgrades for a period less than two years, it is expected that Oman can broadly maintain its fiscal and external stock positions, because the authorities have taken robust policy actions, such as government expenditure reduction, increasing the role of private sector, and tax reform, etc. Given the investment grade rating by S&P and the likelihood of further deterioration is small, overall credit risk level for the two proposed sovereign loans to Oman is expected to be small.

37. **AIIB's Exposure to Oman.** With the approval of the proposed sovereign loans for the Project (\$36 million) and also for another proposed Duqm Port Commercial Terminal and Operational Zone Development Project (\$265 million), the total exposure to Oman is expected to be \$301 million. No limit is breached.

38. **Operational Risks:** The Project is in line with AIIB strategy in infrastructure financing. Based on initial consultations, no major risks have been identified. The Project does not involve any construction activities and thus does not trigger any safeguard policies of AIIB.

39. AIIB does not have operational experience in Oman, and OGLG and Oman Rail have not administered projects funded by multilateral financing institutions. Both OGLG and Oman Rail have currently highly experienced full-time international and national staff to implement the Project. In addition, the Project implementation support and capacity improvement has been provided as a project component through project management consultants. AIIB's consistent monitoring of implementation progress and regular fielding of review missions will ensure timely mitigation of any implementation delay. Annex 5 provides the summary of risks and mitigation measures.

Annex 1: Result Framework and Monitoring

Impact Reduced project implementation period due to sound project readiness			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting	Risks
Outcome			
All EPC contracts commenced immediately after the approval of the loan for the ensuing project	By March 2019 <ul style="list-style-type: none"> design and procurement of EPC contracts for selected mineral connections and Segments completed 	Oman Rail's monthly progress reports and OGLG' website.	Delays in completion of the technical assistant project within agreed timeframe
Outputs			
1. Preliminary railway system design and bidding documents completed for the overall railway system, port terminals, and associated facilities	By July 2018 <ul style="list-style-type: none"> design completed for the overall railway system including rail and port terminals and all associated facilities, signaling, and telecommunications and tenders invited; By June 2018 <ul style="list-style-type: none"> training provided to all related staff of OGLG and Oman Rail; and By December 2018 <ul style="list-style-type: none"> bidding completed for the EPC contracts for the mineral connections and selected segments 	Oman Rail's monthly progress reports AIIB review missions' reports	Delay in award of consultant's contract and their completion
2. Institutional development of Oman Rail ensuring operational readiness completed	By December 2018 <ul style="list-style-type: none"> Oman Rail organization built-up for freight and network operations and maintenance; safe and efficient operations and maintenance in line with operational and regulatory guidelines ensured; strategy developed for Oman Rail business operations; and Knowledge transfer and capability building of Oman Rail's employees accomplished 	Oman Rail's monthly progress reports AIIB review missions' reports	Delay in development of operational guidelines and strategy
3. Land, socio-economic, and environmental surveys completed	By June 2018 <ul style="list-style-type: none"> Route surveys of all affected lands and properties completed; 	Oman Rail's monthly progress reports and OGLG website	Delays in timely approval of land acquisition and

	<ul style="list-style-type: none"> • data acquired from authorities and land owners; • plot and land inventories, field verification, and aerial mapping completed; and • land acquisition and resettlement framework/plan prepared, processed/approved by the related government agencies. 	AIIB review missions' reports	resettlement plans
4. Legal services procured to support the construction contracts	<p>By June 2019</p> <ul style="list-style-type: none"> • legal due diligence for all bids undertaken and bidding documents of major construction tenders finalized; and • contract agreement for all EPC contracts finalized. 	<p>Oman Rail's monthly progress reports</p> <p>AIIB review missions' reports</p>	Performance of legal advisor

Key Activities with Milestones

1. **Railway System Design and Procurement** completed by December 2018
 - 1.1 International consulting firm recruited;
 - 1.2 design completed for the overall railway system including rail and port terminals and all associated facilities, signaling, and telecommunications;
 - 1.3 training provided to all related staff of OGLG and Oman Rail; and
 - 1.4 bidding for selected EPC contracts completed
2. **Institutional Development for Sector Readiness** completed by December 2018
 - 2.1 International consulting firm recruited
 - 2.2 Strategy developed for Oman Rail business operations
 - 2.3 Training and capability building of Oman Rail's employees accomplished
3. **Baseline Surveys (land, socio-economic, and environment)** completed by June 2018
 - 4.1 Route surveys of all affected lands and properties completed
 - 4.2 Data acquired from authorities and land owners,
 - 4.3 Plot and land inventories, field verification, and aerial mapping completed.
 - 4.4 Land acquisition and resettlement framework/plan prepared, processed/approved by the related government agencies
4. **Legal Services for Preparation of Contracts** completed by June 2019
 - 4.1 Legal due diligence for all bids undertaken and bidding documents of major construction tenders finalized;
 - 4.2 Contract agreement for all EPC contracts finalized

Inputs

AIIB loan	\$36.000 million
OGLG	\$24.000 million
Total:	\$60.000 million

AIIB = Asian Infrastructure Investment Bank, OGLG = Oman Global Logistics Group, PMC= Project Management Consultants, SGRF= State General Reserve Fund
 Source: AIIB and OGLG

Annex 2: Detailed Project Description

1. The Mineral Line Project will be making use of the preliminary design already developed for other segments of the network along a new alignment 4D to optimize the railway as a heavy haul bulk railway operation supporting mineral exports. The Project is envisioned to include the following components:

A. Consultancy Services

(a) Railway system design and procurement

2. An international consulting firm recruited under this component will provide engineering services for railway system development including infrastructure, rail compatible mining and industrial terminals, and port rail terminals and facilities. The consultant will develop planning activities supported by specialized simulations in order to define the specific terminal and facility types required to develop the operations of Oman Rail heavy haul freight systems, mixed use (freight and passenger) systems and mass transit (metro and LRT) systems.

3. The consultant will bring wide-ranging professional experience in heavy haul railway design, commercial terminals, maintenance requirements as per freight and passenger demand forecasts and operation plan, and railway systems integration, of demonstrated quality and relevant experience of large projects of similar nature. The consultant shall provide an outline schematic concept supported by reviewing previous studies, preparation of train running simulations, operation plans, and maintenance plans and by extension of commercial plan, design guidelines of the complete infrastructure and system for all commercial terminals and freight maintenance facilities of the project securing the basis of a completed, fully functional and operating heavy haul railway, multi-purpose railway, or mass transit systems. The consultant's scope of work will include the following components:

- Component 1: Operational aspects, including simulation and modeling, time table and operational planning, fleet optimization, train performance calculations, yellow plant maintenance, regulatory and operating practices. Simulation will cover train performance including acceleration and retarding based on train make-up, tonnage, locomotive consist, locomotive characteristics, train length, number of wagons, braking systems, track layout (gradient, curvature, maximum permissible speed) and ambient environmental conditions. An operating plan will be prepared based on probable train timetabling requirements and subsequent train and train crew cycling based on Oman Rail operating philosophy and functional and technical standards, forecasted freight and passenger demand loading and unloading and the proposed track design and alignment, station locations and layout. Fleet optimization will include optimum number of wagons and locomotives required to meet the forecasted tonnages and timetable train plan, time distance graphs and time tables which will optimize the assets as well as meet the demands of the customers. A procurement plan will be developed for rolling stock and locomotives. Train performance calculations will include recommendations on optimum train size, horsepower per trailing ton, train speed, braking curve potential, train consist and load versus fuel burn rates.

- Component 2: Infrastructure, including preliminary design (alignment design and optimization, track design, infrastructure design, rail technology systems design, design of auxiliary buildings, value engineering, design of mechanical, electrical, plumbing (MEP), heating, ventilation, air conditioning (HVAC), drainage and other mechanical systems); modeling of hydraulics, structures, track, and rail-wheel interface; technical and performance specifications; and asset management and planning. Track design will include considerations for ballasted and non-ballasted tracks; turnouts, junctions and special track-works; railway utility crossings (under track, at grade, and overhead crossings); derailment containment at bridge and tunnel structures (including track stiffness transition requirements); depot track design work incorporating embedded track, slab track, pedestal track-forms and level crossing design; rail and wheel interface relative to both high speed and heavy haul operations; reduction in noise and vibration; track clearance requirements and sand mitigation; GCC interoperability requirements; and other track design works relating to buffer stops, fastening systems and design of sleepers and bearers.
- Component 3: Rolling stock, including technical and performance specifications, procurement support, fleet optimization, rail-wheel interface, maintenance procedures and planning. Performance specifications and standards will include locomotives and wagons capable of handling between 32.4 and 44-ton axle loads using UIC, AAR and Australian standards for the freight rail network; mass transit (metro, light rail) and passenger locomotives, power units and coaches; and analysis and recommendation of wagon and locomotive types and characteristics which are compatible to the loading and unloading plan at the mine sites and port operations.
- Component 4: Management, including technical support, procurement management, cost planning and control, and tender preparation. The scope of services include identification of cost planning and control procedures covering cost appraisal and pre-tender estimation; preparation of cost plans/cost breakdown structures/BoQ's/schedule of rates; post award cost management; project control (earned value) techniques; expenditure reporting and change management. Also included will be development of procurement strategy including contract, tender documents for infrastructure and facilities, RFPs and the technical tender documents as per the approved implementation strategy following AIIB requirements and Oman Rail Contracting and Procurement policy procedures. The consultant will assist during bidding, including response to bidders' queries and evaluation of bids.
- Component 5: Railway facilities, including terminals, depots, maintenance workshops for wagons and locomotives. The following types of terminals will be considered: Satellite terminal/ customer sidings / bulk loading facilities; block swap terminals (crew change, fuelling facilities, and truck repair stations); terminals for bulk commodities (gypsum, limestone, iron ore pellets, cement clinker, chrome ore, petroleum and other liquid products, aggregates, bulk grains, etc), intermodal containers, industrial products, and logistic centers (loading, unloading, trans-loading intermodal containers, container stacking/storage, electrical power for reefer containers, break bulk laydown/storage areas, dry and liquid bulk, bulk storage/silos, maintenance and repair of mobile equipment, and light maintenance and servicing of railway rolling.

- Component 6: Mass transit including feasibility and demand study, urban planning, alignment design and civil works (earthworks and drainage), track works (LRT track, ballasted track, slab track, embedded track), architectural and landscape design, structures (stations, platforms, underground structures, steel structures, storage facilities, bridges), signaling and communications (traffic control, security system, train protection systems), safety systems and assurance, reliability-availability-maintainability-safety (RAMS), automated fare collection system, traction power supply and distribution system, tunneling and ventilation systems, metro and light rail rolling stock, stray current and corrosion control, and electro-magnetic compatibility and interference;
- Component 7: Auxiliary services pertaining to mines and ports, as needed. This area includes review of the environmental impacts; review and update of operation and maintenance workloads and requirements; conducting interviews with local agencies and stakeholders involved in the rail-based logistics chain; identification of needed port facilities, as well operational activities for accommodating, loading/ discharge of ships and for the storage, stacking and handling of cargo on shore (e.g. bulk cargo terminal, oil terminal, livestock terminal, etc.); infrastructure to support the mining industry including, mine site facilities, such as materials handling and transportation, scoping for environmental studies and management plans, mine fuel supply, mine security, and loading/ unloading facilities.

(b) Institutional development for sector readiness

4. Oman Rail will set up an operating company (OpCo) responsible for freight and network operations and maintenance of railway assets. OpCo will be primarily staffed by Omani personnel who are not typically experienced in operating and managing a railway. To gain this expertise and training, an international firm with a proven track record in successfully operating railways will be recruited under this component to provide technical assistance (TA) in establishing OpCo and support institutional development for sector readiness. At the completion of this initial phase funded by the proposed AIIB loan, the institutional consultant (IC) will continue to support OGLG and Oman Rail during construction of OR network (implementation phase) with funding provided as part of capex and during operation of the railway with funding covered as part of opex. The scope of IC's services included in this section cover only the initial phase funded through the proposed AIIB loan.

5. The key objective of institutional development for sector readiness is to build up and manage the OpCo responsible for the freight and network operations and maintenance while ensuring sufficient knowledge transfer and capability building of Oman Rail's team enabling Oman Rail to ultimately run the OpCo independently. Accordingly, the role of the IC will be as follows:

- Support Oman Rail in building up the organization and ensuring operational readiness for freight and network operations and maintenance;
- Ensure readiness for provision of safe and efficient operations and maintenance in line with operational and regulatory guidelines;
- Develop profitable business practices and ensure successful disengagement and handover of the freight and network operations and maintenance to OpCo;

- Ensure knowledge transfer and capability building of Oman Rail's and OpCo's employees through suitable staff development, training plans and performance management; and
- Provide rail expertise to ensure continued freight and network operations.

(c) ***Baseline surveys (land, socio-economic, and environment)***

6. In order to provide a more direct routing from the source of minerals in Dhofar and Al Musta Governorates to the port of Duqm, a new alignment has been included as Segment 4D4D to the OR network (see Figure 1, inside front cover). Gypsum, limestone, dolomite and other minerals in Shuwaymiyyah, Marmul, and Amal are 110 km shorter to Duqm due to reduced triangulation of the rail alignment. Because of the recent addition of Segment 4D, a consultant will be recruited to undertake a topographic survey of land and identify legal ownership through land plots and records. Any land owned by individuals or private sector entities through which the alignment of Segment 4D passes will be identified and an inventory of affected property will be prepared showing the size of affected land, type of land use, above ground structures, trees and crops. A socio-economic baseline survey will be conducted to collect data on demographic, educational, occupational, and economic parameters characterizing the affected people and households and establishments within 2 km on both sides of the alignment. This data will be used as baseline information against which comparisons will be made on similar data during the construction of Segment 4D4D and its operation.

(d) ***Legal service for procurement actions***

7. In conformity with the requirements of Royal Decree 36/2008, Promulgating the Tender Law, Oman Rail issued in September 2014 Contracting and Procurement Policy Manual to be used in all procurement actions. The Manual establishes direction to meet the following goals: (i) provide the OR management with the tools to procure goods and services as required for the Company activities; (ii) apply appropriate controls for the procurement process; (iii) ensure that the Company management conducts procurement activities in a transparent and responsible manner; (iv) provide fair and equal opportunities to suppliers and service providers; (v) conclude the bid action within a reasonable time frame; (vi) prevent occurrence of irregularities and allegations of any malpractice; (vii) ensure that the cost of all goods and services procured are the optimum possible without compromising the specification and quality standards of goods and standard of services required; and (viii) ensure that the goods or services are most appropriate to meet the intended purpose.

B. IT Equipment

8. This component includes miscellaneous office equipment to support the day-to-day activities of Oman Rail and OpCo during the effectivity period of the proposed AIIB loan. The equipment will be procured through use of local shopping procedures with evaluation of competitive bids by Procurement Committee as defined in Oman Rail's Contracting and Procurement Policy Manual.

C. Project Management

9. Oman Rail has already established a project management unit (PMU) with the core disciplines including project management and control, engineering, rail operations,

finance and health, and safety and assurance. The size of the PMU team is currently scaled for the development phase. An international consulting firm recruited under this component will provide support to the PMU in the Railway System Preparation Project. The project management consultant (PMC) will provide consultancy services for review, checking and approval of deliverables produced by the railway system design consultant and assist OR in tendering for appointment of a suitable supervision consultant for site-based contract supervision. The PMC will be responsible for overall project controls and management; and preparations for the procurement of rolling stock. Additionally, the PMC shall be responsible for preparation of project monitoring reports and other deliverables on the basis of indicators agreed with AIIB

Annex 3: Economic and Financial Analysis

Traffic Forecast

1. Oman is blessed with various industrial rocks and minerals. There are about 7 or 8 industrial rocks and minerals, which are required to support many industries. These include limestone, dolomite, gypsum, salt, silica sand/quartzite, clays, olivine and laterite. Fortunately, Oman has all of them in commercial quantities (see Table 1), However, industrial facilities using these minerals are not well-developed, leaving export of raw materials as the current market potential for minerals. As processing facilities are developed for construction materials, chemical, fertilizer, ceramic, glass, fillers, filters, abrasives, fluxes, foundry and refractory, etc. are set-up export of processed minerals will find export markets.

Table 1: Minerals of Oman

Mineral	Major locations	Resource Size	Established Export Markets
Aggregate	Throughout	Very Large	GCC, Other Middle East
Attapulgit	SW (Tawi Attair, Shuwaymiyah)	>600 mt	UAE, other GCC
Bentonite	NE (Ja'mat Qabus, Hamadiyun)	Large	Possible GCC
Clay/Shale	NE (various sites)	Very Large	GCC, South Asia (floor and wall tiles)
Dolomite	Throughout	Large	UAE, other GCC/South Asia
Feldspar	NE (Abu Mahara) and SW (Mirbat)	2-3 mt	UAE, other GCC
Gypsum	SW (Salalah)	Large	India, UAE, Other Middle East
Kaolin	Central	> 15 mt	GCC, South Asia (as used in floor and wall tiles)
Laterite (Iron Oxide)	Central (Ibra), NE (Nakhal)	N/A	UAE, other GCC
Limestone	Throughout	Very Large	GCC, Indian Ocean rim
Manganese	Central	2-3 mt	None as raw mineral, South Asia
Marble & Ornamental Stones	Throughout	Very Large	GCC, Other Middle East/South Asia
Olivine	North (Sohar, Fanja)	N/A	None as raw mineral
Salt	Central (Umm el Samim, Salt Domes)	Very Large	GCC as part of caustic soda, soda ash
Silica Sand & Quartzite	Throughout	Modest	Not as raw mineral. Exported as part of processed goods

Source: Ministry of Commerce and Industry, Directorate General of Minerals, Industrial Rocks and Minerals in the Sultanate of Oman: Development Possibilities, August 2004.

2. Oman has large deposits of high quality gypsum in the mountains, and these, especially in the south, are increasingly being mined and exported to India. This market

is already growing and is expected to grow even more rapidly in the future as a consequence of increasing demand in India. The recently established Gypsum Export Board is tasked to mitigate any constraints on local production capacity and coordinate export marketing and sales so that this rapidly growing export demand can be met.

3. Similar demand opportunities apply to limestone (which is another key ingredient in the production of cement). However, in Oman these resources lie very close to the coast (and the Ports). Cement production facilities in Oman are also located at the ports. It is, therefore, unlikely that Oman Rail would play a major role in the export of this material to India. However, a market exists for movement of limestone to cement production facilities in the wider GCC, where Oman Rail would play an important role.

4. The export of cement from Oman is large and growing, but these facilities are located at or near the ports. As such, the Oman Rail is not expected to play a role in this export activity. However, some of the cement facilities in the wider GCC are expected to increasingly look to non GCC export markets. It is anticipated that the Oman Rail will meet some of this demand via the Oman Ports.

5. The industrial area around Sohar contains a number of heavy industrial smelters including facilities for aluminum, iron, steel, and chrome. While much of the inputs and outputs from these are moved by sea, a number of markets were identified for Oman Rail. This include chrome from the Oman mountains to the smelter, and iron pellets and steel products from the smelter to the wider GCC.

6. Based on traffic forecast made by BuroHappold Engineers, Table 2 provides freight traffic projections for Segment 1 and 4.

Table 2: Traffic Projections

Millions of Tonnes	2021	2026	2031	2036	2041
OR Segment 1	31.60	42.10	61.60	68.70	82.70
OR Segment 4	4.98	30.48	53.98	56.50	56.50

Source: OGLG

Economic and Financial Returns

7. Financial and economic rate of return analyses carried out by OGLG through international consultants, PricewaterhouseCoopers (PwC) and Burohappold Engineers (BHE), respectively in 2015 showed robust returns for both the overall railway network project and for Segments 1 and 4. Table 3 below clearly demonstrates that connection to the GCC network (Segment 1) and a mineral line in the south of Oman (Segment 4) will bring significant economic value to Oman and attractive financial return to the government.

Table 3: Economic and Financial Returns

	Economic Rate of Return (BHE) ^(a)	Project Rate of Return (PwC) ^(b)	Equity Rate of Return (PwC) ^(b)
Overall Segments 1-4	54.6%		
Segment 1	66.0%	8.8%	13.8%
Segment 4	60.1%	5.4%	7.5%

^(a) Economic rate of return (ERR) data for overall Segments 1-4 from BuroHappold Engineers, Economic Impact of the Oman Railway, Report of High Level Analysis, 11 August 2015, Appendix B ERR Values, Table B-2: Economic Rate of Return of Oman Railway - Central - P50 Development Scenario.

^(b) PricewaterhouseCoopers, Oman Rail Financial Model worksheet “Dashboard” for Segment 1 and Segment 4 in separate Excel workbooks. The financial returns are for Central - P50 Development Scenario.

8. The economic returns from each segment are derived from reduced road transport costs (safety, environmental, lower maintenance) and the benefit of the infrastructure investment itself on the country’s economy. The economic rate of return is estimated using the U.K. government’s ‘Green Book’ guidelines with regards to assessing and measuring economic impact and project evaluation.⁴ These guidelines allow inclusion of benefits during the construction stage because the benefits are estimated from the direct wages paid to employees working in the project, indirect impacts stemming from payments to businesses from which the project buys goods and services during construction, and induced impacts of expenditures made by direct and indirect employees in the economy, also known as multiplier effects. If a benefit stream during the implementation stage is not included in the economic evaluation, the ERR would be reduced by approximately 50%.

9. From a project perspective, Segment 1 benefits most from container traffic into the GCC, while Segment 4 derives the majority of its revenues from the mineral sector. Segment 1 offers the most efficient logistics option for GCC countries via a port (Sohar) and is the most profitable of all of the segments. Although equity and project returns on Segment 4 are lower than Segment 1, there is material value to the economy through debottlenecking of the mineral industry logistics and diversifying the economy.

⁴ HM Treasury (2011), The Green Book: Appraisal and Evaluation in Central Government; https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/220541/green_book_complete.pdf

Annex 4: Sovereign Credit Fact Sheet

A. Recent Economic Development

1. Oman is a high income country with heavy dependence on oil and gas. Oil production accounts for around 50% of GDP, and over 70% of government receipts and export earnings. Omani growth has been adversely affected by the recent decline in oil price, with the economy contracting by 13.8 per cent in 2015, before a slight rebound of 2.7 per cent in 2016.

2. The authorities have taken measures to reduce the attending fiscal deficit, including cutting spending on wages and benefits and reducing subsidies. However, it remains in deficit, and public debt will rise in next few years. During the period 2010 to September 2014 benchmark oil prices (Brent) were over USD100/barrel and Omani average annual current account surplus was over 5 percent of GDP. The oil price at the beginning of December 2015 (\$44.3/barrel) was down 61% compared to the high in 2014. As a result, Omani current account will deteriorate significantly. The exchange rate peg to the U.S. dollar continues to serve Oman well and inflation is projected to remain low.

B. Economic Indicators

Selected Macroeconomic Economic indicators (2014-2018)

Economic Indicators	2014	2015	2016*	2017*	2018*
National income and prices (change %)					
Economic growth (GDP-annual%)	2.7	-13.8	2.7	3.4	4.3
CPI inflation	1.0	0.1	1.1	1.9	2.3
Total government operations (% of GDP)					
Total government revenue	45.3	33.8	35.0	36.0	36.5
Total government expenditure	48.8	51.1	50.5	48.3	47.5
External debt (% of GDP)	14.0	19.0	17.0	16.0	--
Public debt (% of GDP)	4.9	9.2	29.3	35.3	38.0
Money and credit					
Broad money (US\$ billion)	34.1	39.1	40.1	40.7	38.6
Gross reserves (billions \$)	16.3	17.5	16.0	15.1	15.2
Current account balance (% of GDP)	5.2	-15.5	-16.3	-11.4	-8.8
Exchange rate (OMR/\$, end period)	0.39	0.39	0.39	0.39	0.39

Note: * denotes projected figures. Figures in the table are based on data confirmed by State General Reserve Fund of Oman.

Source: Focus Economic, Consensus Forecast, Oman, October 2016; National Centre for statistics and Information, statistical Yearbook 2016, Oman July 2016; World Bank, World Development Indicators databank; Euler Hermes Economic Research, Country report Oman, 2015.

C. Economic Outlook and Risks

3. Looking ahead, Omani medium-term growth is projected to pick up. The modest recovery of oil price will provide some support for growth to recover. Omani current account deficit is likely to persist, albeit with a smaller deficit, through the medium-term. Nevertheless, the key risk in relation to the external sector is a more protracted

period of low oil prices, which will make it harder for Oman to close the current account deficit. Another risk is a further decline in demand for Omani exports in the country's main trading partners. For debt outlook, IMF pointed out that the sustained impact of fiscal measures mentioned before, combined with the planned increase in corporate income tax from 2017 and the introduction of VAT in 2018, will narrow the fiscal deficit over the medium-term and thus public debt.⁵

⁵ International Monetary Fund (IMF), 2016. Press Release No. 16/205– Press Release: IMF Staff Completes 2016 Article IV Mission to Oman, May 9, 2016.

Annex 5: Risk Assessment and Mitigation Measures

Risk	Risk Assessment*	Risk-Mitigation Measures
<i>Inherent Risk</i>		
1. Entity-specific Risks	M	Oman Rail and OGLG are new to AIIB’s Procurement Policy and Directives, and Loan Disbursement Manual and procedures. At the commencement of the project implementation, AIIB will arrange a comprehensive training of Oman Rail and OGLG on AIIB’s procurement and disbursement procedures, financial management, and best implementation practices.
3. Operations Risks	M	The Project includes a component “ <i>Institutional Development for Sector Readiness</i> ” to mitigate this risk.
Overall Inherent Risk	M	
<i>Control Risk</i>		
1. Implementing Entity	M	<p>Project implementation support and capacity improvement provided as a project component through project management consultants. In addition, AIIB’s consistent monitoring of implementation progress and regular fielding of review missions will ensure timely mitigation of any implementation delay.</p> <p>Since the same AIIB Team is also engaged in the implementation of <i>Duqm Port Commercial Terminal and Operational Zone Development Project</i>, which is to be implemented by SEZAD, AIIB will hold monthly video/tele-conferences with OGLG, Oman Rail, and SEZAD to closely monitor the progress of both projects and take urgent steps to avoid any delay. These measures are in addition to regular review missions, which will be fielded at least twice per year.</p>
2. Funds Flow	M	Timely availability of counterpart funds will be ensured by implementing the proposed funds flow arrangements
3. Staffing	M	Project Management Consultant shall assist Oman Rail to design and implement the training program especially for AIIB financial reporting requirements and their integration into overall national financial reporting requirements.
4. Accounting Policies and Procedures	M	Policy in place.
5. Internal Audit	N	Internal audit function is provided by PWC, an internationally recognized audit company.

Risk	Risk Assessment*	Risk-Mitigation Measures
6. External Audit	M	Audit of the project accounts shall be done in accordance with the International Standards on Auditing, by an internationally recognized Auditor acceptable to AIIB.
7. Reporting and Monitoring	M	Oman Rail shall regularly report in accordance with AIIB requirements on inherent adequate control mechanisms
8. Information Systems	M	OGLG/Oman Rail utilizes a Microsoft Dynamics AX ERP system which will interface with the PMIS
Overall Control Risk	M	

* H – High, S – Substantial, M – Moderate, N – Negligible or Low.

AIIB = Asian Infrastructure Investment Bank; OGLG = Oman Global Logistics Group; PMIS = Project Management Information System; SEZAD = Special Economic Zone Authority of Duqm

Source: AIIB

Annex 6: Financial Management Assessment

1. Key findings of the financial management assessment undertaken for the Oman Rail Project during the project preparation are as follows:

Summary of the Financial Management Assessment

Particulars	Conclusions
A. Funds Flow Arrangements	To date, funding for the Project has been through the government and Oman Rail's parent company, Oman Global Logistics Group (OGLG). However, internal funds flow arrangements are reliable and secure. Oman Rail has enough capability to smoothly work under the proposed Project with the training designed through AIIB during inception mission and by the project management consultants during project implementation.
B. Staffing	Oman Rail's Finance Department (supported by OGLG), who oversees funds flow, is staffed with experienced financial specialists who are experts in managing the internal finance and have international financing experience. All employees are full time with formal job descriptions for each position.
C. Accounting Policies and Procedures	The chart of accounts for Oman Rail is fairly straightforward. Segregation of duties is specified in Accounting Procedures which sit below Accounting and Treasury Policies. A separate financial management manual is planned to be established for the Project in accordance with AIIB requirements.
D. Internal and External Audits	An Internal Audit function is provided by PWC. For the external Audit, there are two layers, first it is carried out by the State Audit Institution of Oman which is followed by an independent international auditing firm (currently KPMG).
G. Reporting and Monitoring	Financial statements are currently prepared for OGLG on monthly and annual basis. It is envisaged that the existing reporting system will be linked with the financial information of physical project progress through a relatively simple file transfer processes on a monthly basis from a Project Management Information System (PMIS) such as ACONEX.
H. Information Systems	Financial management system of OGLG is computerized and it produces the necessary financial reports of the ongoing development works. The staff is adequately trained to maintain the system and the management organization; and processing system safeguard the confidentiality, integrity, and availability of the data

Source: AIIB Project Team

2. Actions required to be taken by the Oman Rail team are as follows:

- (i) Financial staff must undergo trainings on AIIB financial management procedures to understand them and strengthen their internal audit capacity;
- (ii) Oman Rail should maintain separate accounts for the Projects and have such accounts audited annually, in accordance with appropriate auditing standards consistently applied by internationally recognized independent auditors whose qualifications, experience, and terms of reference are acceptable to AIIB.

Annex 7: Oman Global Logistics mandate and structure

- Oman Global Logistics Group (OGLG) is 100% owned by the Ministry of Finance. Its mandate is split into three categories:
 - Implement the National Logistics Strategy
 - Act as Government development arm for the logistics sector
 - Manage the government's investments in the sector.
- The following Table shows the companies within the group and OGLG's shareholding in each.

Oman Global Logistics Group S.A.O.C

PORTS	Economic Zones	Transport	Logistics Support Services
Sohar Industrial Port Company - 50%	Sohar International Development & Investment – 50%	Oman Rail Company – 100%	Oman Drydock Company – 100%
Port of Duqm Company – 50%	Salalah Free Zone Company – 100%	Oman Shipping Company – 80%	Oman Post Company – 100%
Salalah Port Company – 20%	Duqm Development Company – 100%	Oman National Transport Company – 100%	International Maritime College Oman – 70%
Oman International Container Terminal – 22%	Oman Integrated Logistics Company – 100%	National Ferries Company – 100%	

Total Assets 1.35 bln OMR	Revenue 300 mln OMR	Operating Cash Flow 120 mln OMR	Total Employees 6800
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- The OGLG is in its infancy. At present it comprises the following functions:
 - Logistics strategy
 - Business Development
 - Finance
 - Corporate Services (procurement, IT, HR and Admin)
 - Legal
- It is too early to determine how the company will impact the strategies across the whole group. However, savings are clearly possible through larger procurement capacity, the potential to share services and deploy human resources across the group.
- As a result of its mandate to implement the National Logistics Strategy, OGLG is tasked with delivering value to the economy over and above, which would normally be expected of a corporate entity, though the drivers for economic growth and growth of the company are largely aligned.

Annex 8: Role of Duqm Port

I. Omani Ports

1. Oman Ministry of Transport and Communications (MOTC) has tasked each Omani port to operate in a complementary fashion without duplication. Port Sultan Qaboos will be a city port for tourism. Sohar's role is a combination of containers, general cargo, and petrochemicals. Salalah is engaged in the containers transshipment. Duqm will be a general port with major facility for the mineral and petrochemical sectors.

II. Duqm Port's Cargo Base

2. Duqm Port will have three captive cargo bases:

	Types of cargo	Mainly transported by
a.	minerals export by mining companies exploiting the mineral rich Al Wusta and Shuwaymiyah regions	In dry bulk form by bulk ships
b.	raw materials imported and exported for and by the industries in the Duqm Industrial Zones	Containers on dedicated container or general cargo ships
c.	petrochemical from the planned 230,000 bpd refinery in Duqm	In liquid bulk form by ship tankers

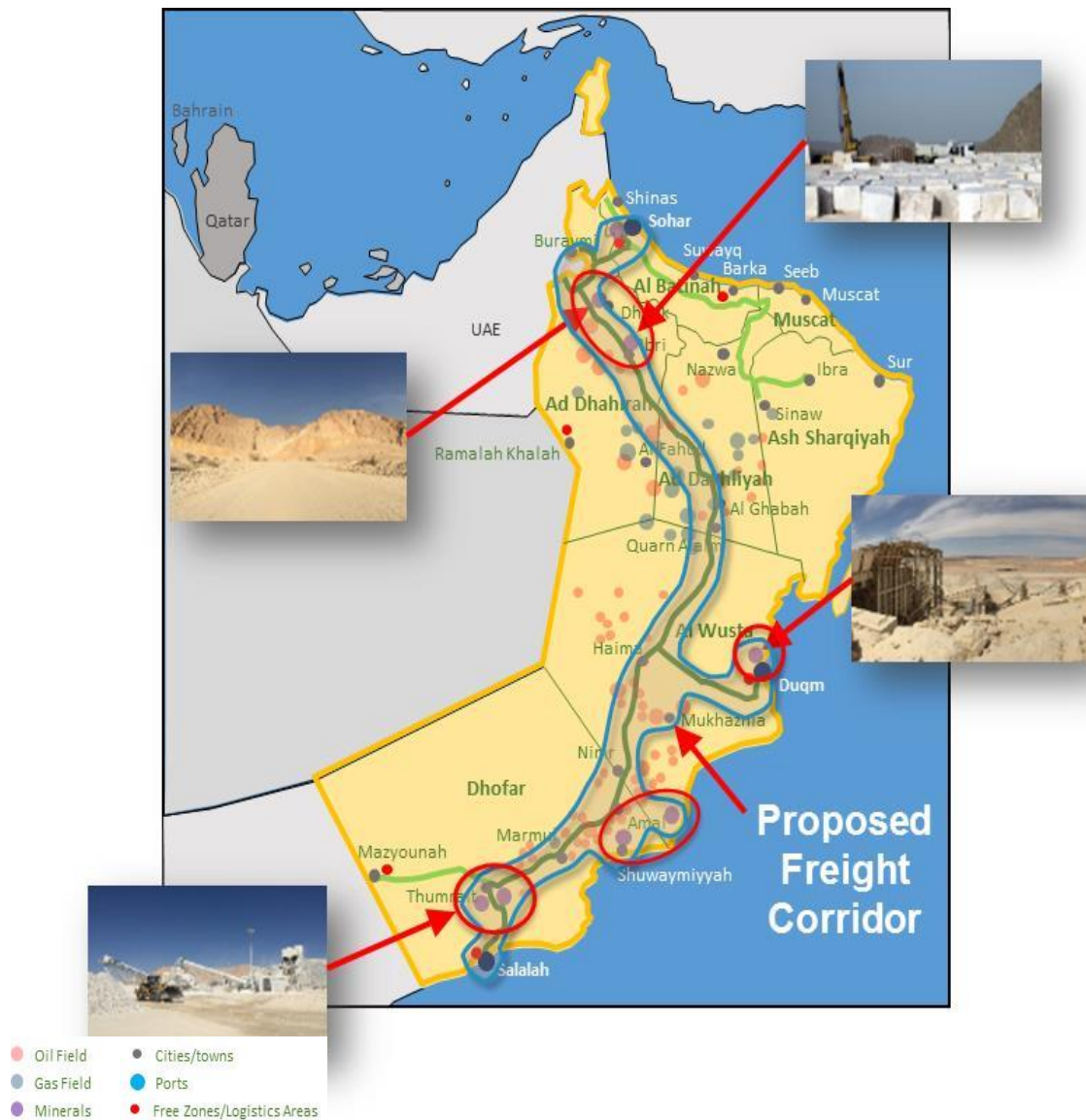
III. Oman's Mineral Exports

3. Oman is rich with varieties of mineral resources and possesses many key industrial minerals in commercial quantities. Its mining industry is an important sector in the country's diversification program. Mineral products such as dolomite, gypsum, and limestone are the largest components of the country's non-oil exports. Oman's bulk mineral export is targeted to increase from current 10 million tons to 60 million tons. Gypsum exports from Oman have grown from 0.3 million tonnes in 2010 to 5.84 million tonnes in 2015. Oman is set to export 10 million tonnes of gypsum to become the world's fourth largest gypsum producer in 2018, and to hit 12 million tonnes by 2019/2020 to become the third largest gypsum producer in the world. At the national level, the capacity to export industrial minerals is expected to increase substantially through enhanced facilities of Duqm Port.

IV. Role of the Duqm Port

4. Duqm and its surroundings are rich in minerals (Figure 1) attracting both local and foreign mining companies to operate at the Duqm Special Economic Zone (SEZ). Duqm Port is set to be a major port serving the Duqm SEZ, its associated industries as well as the growing mineral industry sector exploiting the rich mineral ore reserves in and near the Al Wusta region, and to handle bulk dry cargoes in particular with the aim to establish Duqm as a center for minerals export.

Figure 1: Location of Mineral Resources, and Oil and Gas Fields



Sources: Mining and Petroleum Industries, and Public Authority of Mining

5. Duqm Port sustainability will also be dependent on the commercialization of the substantial mineral resources of Wusta Governorate to generate a sizeable volume of the port's cargo volumes over the long term. A Dry Bulk Terminal with a capacity of up to 10 million tonnes per annum is part of the Port's immediate development plan under the *Duqm Port Commercial Terminal and Operational Zone Development Project* proposed for AIIB financing.

V. Duqm Port's Mineral Export Market

6. The total mineral trade from Duqm Port is expected to reach 4-5 million tonnes within 5 years from start of its operation and planned to reach 15 million tonnes by year 2028. The pace of this increase is linked with the ongoing new mines development and/or the planned expansion of existing mines. The railway mineral line will be a catalyst for Duqm Port's mineral export volume to substantially exceed the volumes

noted above. Based on Duqm market study, the details of potential export opportunities of Oman's major minerals are as follows:

A. Gypsum

7. Potential export opportunities for Omani gypsum during 2016- 2030 are:
 - Indian cement industry, which is projected to consume over 4.25 million tons of gypsum. The local supply is limited to about 1.50 million tons. Deficit of over 2.75 million tons in the domestic supply is dependent on imported gypsum and Oman is the closet market for this demand.
 - Due to a supply crunch in Thailand where mineral mining has been facing several regulatory constraints, the existing Thai gypsum consumers like Indonesia, Vietnam, Malaysia, Japan, Bangladesh, and Philippines are expected to look elsewhere to import over 200 million tons of gypsum.
 - Growing construction industries in South and East Africa are estimated to consume around 10 million tons of imported gypsum.
 - Construction industries in UAE, Qatar, Kuwait and Bahrain are projected to import over 50 million tons of gypsum.

8. Export of gypsum from Duqm is expected to start off around 1.25 million tons per annum to progressively increase to around 5 to 9 million tons per annum as more mines are operated and incentivized by the availability of rail transport.

B. Limestone

9. The Indian steel industry requires high grade limestone with low silica content, which is abundant in Oman. About 30% of India's high grade limestone requirement is imported. Furthermore, Kingdom of Saudi Arabia (KSA) imports about 2/3rd of its Steel manufacturing limestone requirement. Limestone exports from Duqm Port can be expected to capture a significant share of this trade due to its strategic location and short haulage. The overall export of limestone from Duqm is expected to be around 1.8 million tons per annum in the near term to subsequently reaching to around 6.5 million tons per annum.

C. Dolomite

10. Oman has up to 500 million tons of dolomites. The markets for Oman dolomite are in Dubai, Abu Dhabi, Qatar and India. An operational dolomite quarry with a proven reserve of 300 million tons is located a mere 30km from Duqm Port with contracts to export to India. This quarry alone has the capacity to produce and export between 1.5 to 2 million tons a year. Duqm Port successfully exported its inaugural shipment of dolomites in February this year (2016).

D. Salt

11. Rock salt deposits are present in Umm Samim region. A large sea salt manufacturing facility (1 million tons per annum, using solar evaporation method, is expected to come up in Barr Al Hikman /Nagdah area.

12. UAE and Qatar salt imports are expected to grow as a result of the growth of the petro-chemical industry (due to availability of cheap feedstock) in these regions.

These countries currently import salt from KSA, India and Iran; Duqm Port can compete for these imports. The Port is estimated to handle about 0.5 to 0.75 million tonnes per annum of salt exports.

E. Silica Sand

13. Prominent silica sand deposits are in Al Hawf, Abu Tan, Ar-Raqi and Wadi Baw. The silica sand availability near Duqm Port is estimated at 40 million tonnes.

14. UAE and Qatar are large markets for silica sand from Duqm Port. Their import of silica sand through Duqm Port is projected to grow from about 0.5 million tonnes to 1.6 million tonnes.

VI. Duqm Port in serving the SEZ Industries

15. Oman's industrial sector will largely depend on export market for growth in view of a limited domestic market. The Duqm SEZ has designated industrial zones ranging from light to heavy industries. These industries will import raw materials and export their products through Duqm Port.

16. In May 2016, SEZAD signed an agreement with Oman Wanfang to build a Sino-Oman industrial park at the Duqm SEZ on an area of 1,172 hectares and with an investment of about \$10.7 billion. Oman Wangfang is a subsidiary of China-Arab Wanfang Investment Management Co, established with government backing in 2015 by companies in the northwestern Chinese region of Ningxia. The Sino-Oman industrial park is projected to generate about 22 million tons per year volume of cargo handling for import and export through Duqm Port.

VII. Commercial Quay Capacities and Spill Over Contingency

17. The commercial quay will have three distinct cargo terminals. The allocation of space currently allows on an annual basis 20 million tons of dry bulk, 2.3 million TEUs of containers and 2.6 million tons of general cargo. Terminals are only segregated by internal fences. These would be adjusted to allow more space to each terminal when demand exceeds the terminal allocated capacity. In the event that mineral ore export exceeds 20 million tons, the multipurpose terminal could be relocated and the space vacated made available for dry bulk handling. Warehouses vacated could also be used as covered storage for the more valuable minerals. This contingency measure allows the dry bulk capacity to reach 25 million tons a year.

VIII. Duqm Liquid Bulk Cargo

18. The final group of captive cargo base for the Duqm Port is liquid bulk cargo. In this respect, a 230,000 bpd refinery is taking root in Duqm. Along with it will be a petrochemical cluster and tank storage. Terminals will be dedicated for handling liquid bulk and located away from the terminals handling dry bulk and break bulk cargos. The annual volume of liquid bulk including imported crude to be handled at Duqm Port is projected to begin with about 1 million tonnes to gradually rise to 23 million tonnes in 20 years, which comprise 11.2 million tonnes of crude imports and 12.1 million tonnes of petrochemical products.