17 Employment and Economic Development

17.1 Introduction

This chapter considers the Simandou Mine’s impacts on employment and economic development during construction, operation, and closure. Potential impacts include changes to:

- employment levels;
- work skills and experience;
- opportunities and capabilities within the local supply chain;
- economic development and diversification;
- boom-bust between construction and operation;
- price inflation and economic vulnerability; and
- unmet expectations.

Following an assessment of the significance of these impacts, the chapter considers how the mine will mitigate negative impacts as well as enhance positive impacts through the Simandou Project’s Social Management Framework (SMF). A residual impact ranking is then assigned to each potential impact.

Further details of the chapter structure are as follows:

- Section 17.2 provides a description of the approach used for the assessment, including a description of how the study area has been defined and the criteria used to assess impacts;
- Section 17.3 presents the assessment of impacts from the mine in the absence of further actions to mitigate negative impacts and enhance positive impacts;
- Section 17.4 describes the SMF and associated mitigation measures for impacts on employment and economic development, and then assesses the residual impacts after mitigation; and
- Section 17.5 provides a summary of findings.

The assessment in this chapter draws extensively on baseline information presented in Chapter 15: Socio-Economic and Community Baseline. For a full understanding of potential socio-economic and community impacts associated with the mine, the reader should also consult the following chapters:

- Chapter 16: National Economy;
- Chapter 18: In-Migration;
- Chapter 19: Land Use and Land-Based Livelihoods;
- Chapter 20: Social Structures and Community Life;
- Chapter 21: Community Health, Safety, and Security;
- Chapter 22: Labour and Working Conditions;
- Chapter 23: Ecosystem Services; and
- Chapter 24: Human Rights.

17.2 Approach

17.2.1 Study Area

Development of the mine will have a wide range of effects on socio-economic and community conditions over geographic areas ranging from the immediate area around the mine to the whole of Guinea. The mine study area for impacts on employment and economic development has been defined at two levels: regional and local. The regional study area extends over the four prefectures surrounding the proposed mine site: Beyla, Kérouané, Macenta and N’Zérékoré. The local study area comprises parts of the four sub-prefectures including and immediately surrounding the proposed mine site (ie Nionsomoridou, Beyla Centre, Boola and Kouankan) and is broadly defined by the N1 road to the north and east, Boola Town and Dandano to the
south, and Bonodou and Famoila to the west. Further details regarding socio-economic study area
delineations for the mine, including maps, can be found in Chapter 15: Socio-Economic and Community
Baseline.

17.2.2 Legal and Other Requirements

This assessment has been prepared in line with applicable Guinean laws and development policies as well
as international and Rio Tinto standards. Details regarding specific legal and other requirements relevant to
the assessment of socio-economic and community impacts, including impacts on employment and economic
development, can be found in Chapter 15: Socio-Economic and Community Baseline.

17.2.3 Prediction and Evaluation of Impacts

The significance of potential impacts on employment and economic development is evaluated taking into
account the magnitude of the change in baseline conditions and the sensitivity of affected receptors,
following the general methodology presented in Chapter 1: Introduction. Further details regarding the
methodology as applied in this chapter are described below.

17.2.3.1 Magnitude

The magnitude of each potential impact on employment and economic development (both positive and
negative) is ranked on a 4-point scale ranging from negligible through small and medium to large. Factors
taken into consideration in determining magnitude include the following.

- **Scale of the impact**: A potential impact that could affect a large number of people or over a widespread
  area is considered to be of large magnitude. On the other hand, a potential impact that could affect a
  small number of people or over a small area is considered small.

- **Duration of the impact**: A potential impact that is expected to persist for the lifetime of the mine would
  be considered large. A potential impact that is expected to last for only a short time (eg a few months at
  the start of construction) is considered small.

- **Intensity of the impact**: A potential impact that could lead to a fundamental change in a population’s
  way of life compared to baseline conditions is considered large. Conversely, a potential impact that
  would result in only subtle changes in conditions is considered small.

Note that in cases where a potential impact features a level of intensity warranting a high degree of attention
by decision makers, a large magnitude ranking may be applied, even if the impact is expected to be of a
small scale or short duration.

17.2.3.2 Sensitivity

The sensitivity of affected receptors (in this case, people and the communities within which they live) relative
to potential impacts on employment and economic development is ranked on a 4-point scale ranging from
negligible to low, medium and high. In practice, all people are considered to be of at least medium sensitivity
so the negligible and low grades are not used.

Sensitivity is determined by the characteristics of the population who are potentially adversely affected or
gaining benefit. Specifically, it is related to the population’s resilience – that is, their capacity to cope with
changes while maintaining their livelihood and social wellbeing. Resilience is often related to the extent to
which people can access suitable resources such as assets, social networks, or other means by which they
can derive livelihoods and upon which they depend. More sensitive receptors tend to lack resources that
could help them respond to or manage changes which may affect their wellbeing. Often, this sensitivity, also
commonly referred to as vulnerability, can be exacerbated if receptor rights to those resources are not
recognised or protected.
Factors that tend to increase sensitivity include:

- old age, youth, female gender, minority ethnicity, or religion;
- poor social and socio-economic status at birth;
- lack of access to land resources;
- lack of access to opportunities for income generation and employment;
- limited livelihood opportunities and livelihood alternatives;
- remoteness from urban centres and main communication infrastructure;
- poor quality and limited access to services (eg health, amenities);
- limited access to, and use of, natural resources including water;
- poor food security and reliance on subsistence farming;
- dependence on unique natural resources;
- limited education and skills;
- poor health or disability;
- absence of support networks; and
- marginalisation (ie degree of access to services and formalised rights).

Conditions in Guinea place women in general as a highly sensitive (vulnerable) group. Gender is therefore specifically taken into account in determining sensitivity, and the impact assessment and mitigation measures give specific attention to women and gender equality.

17.2.3.3 Significance

Table 17.1 below presents the overall approach to evaluating the significance of potential impacts on employment and economic development. Based on considerations of magnitude and sensitivity, the table assigns a significance ranking ranging from not significant to critical for negative impacts and not significant to major for positive impacts.

For significant impacts, mitigation measures are identified with the objective of enhancing positive impacts and reducing the significance of negative impacts, and residual impacts are evaluated taking into account the proposed mitigation. The assessment has adopted a deliberately conservative approach to residual impacts as the full details of mitigation for impacts on employment and economic development are yet to be determined as part of development of the Project Social Management Framework. In practice, it is anticipated that the significance of residual impacts will reduce with the detailed development and implementation of mitigation measures.
Table 17.1 Evaluating the Significance of Impacts on Employment and Economic Development

<table>
<thead>
<tr>
<th>Sensitivity (vulnerability) of receptors</th>
<th>Magnitude of Impact</th>
<th>Negative Impacts</th>
<th>Positive Impacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in economic or social conditions is within the normal range of conditions found in the study area.</td>
<td>Affects a small area or a small number of people relative to the total area or population within the area of influence and / or is of short duration (less than 1 year). Perceptible difference from baseline conditions.</td>
<td>Affects a substantial area or number of people relative to the total area or population within the area of influence and / or persists over many years (eg Project lifetime). Change dominates over baseline conditions.</td>
<td></td>
</tr>
<tr>
<td>Sensitivity (vulnerability) of receptors</td>
<td>Magnitude of Impact</td>
<td>Negative Impacts</td>
<td>Positive Impacts</td>
</tr>
<tr>
<td>----------------------------------------</td>
<td>---------------------</td>
<td>------------------</td>
<td>------------------</td>
</tr>
<tr>
<td><strong>Negative Impacts</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>More developed communities with greater capacity to change; better access to employment and commerce, resources, services; less vulnerability, greater level of education and skills.</td>
<td>Not Significant</td>
<td>Minor</td>
</tr>
<tr>
<td>High</td>
<td>Less developed communities with lower resilience to change; more reliant on traditional / subsistence lifestyles; less access to resources, services; more vulnerable or otherwise disadvantaged people – eg poor, women, old, minorities, unskilled, low education / skills base.</td>
<td>Not Significant</td>
<td>Moderate</td>
</tr>
<tr>
<td><strong>Positive Impacts</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medium</td>
<td>More developed communities with greater capacity to for change; better access to employment and commerce, resources, services; less vulnerability, greater level of education and skills.</td>
<td>Not Significant</td>
<td>Minor</td>
</tr>
<tr>
<td>High</td>
<td>Less developed communities with lower resilience to change; more reliant on traditional /subsistence lifestyles; less access to resources, services; eg more vulnerable or otherwise disadvantaged people – poor, women, old, minorities, unskilled, low education / skills base.</td>
<td>Not Significant</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

Note: "Negligible" and "low" sensitivities are not applicable to employment and economic development impacts as all people are considered to be at least moderately sensitive to both positive and negative effects.
17.3  Assessment of Impacts

17.3.1  Overview

This section presents an assessment of potential impacts on employment and economic development in the mine study area during construction, operation, and closure. The primary impact assessed here is employment creation by the Project and within the supply chain. Further potential impacts relating to this include changes to:

- work skills and experience;
- opportunities and capabilities within the local supply chain;
- economic development and diversification;
- boom-bust between construction and operation;
- price inflation and economic vulnerability; and
- unmet expectations.

In assessing impacts, this section applies the methodology described in Section 17.2.3 above, taking into account relevant aspects of the socio-economic and community baseline (see Chapter 15: Socio-Economic and Community Baseline) and the mine description (see Chapter 2: Project Description).

Findings from the assessment are described in Sections 17.3.2 through 17.3.8 below.

17.3.2  Employment Levels

The creation of employment opportunities will be an important positive socio-economic impact arising from the Simandou Project as a whole. These opportunities include direct employment by the Project, indirect employment through the Project's suppliers, and induced employment generated through spending and associated job creation in the economy. Direct, indirect, and induced employment opportunities are illustrated in Figure 17.1. The benefits of Project employment are already underway, with the employment of approximately 2,500 Guinean Nationals as of the first quarter of 2012, 770 of whom are directly employed by Simfer and the remainder through contractors and sub-contractors. The total figure represents a 60% increase in employment of Guinean Nationals from the previous year.

Expectations around employment are very high, particularly among the youth. Questions regarding employment opportunities were raised at all meetings held as part of the Project SEIA stakeholder engagement process.
17.3.2.1 Construction Phase Impacts

Construction phase impacts will include direct employment as well as indirect and induced employment. Each type of employment is considered in the sub-sections below.

Direct Employment

Large numbers of people will be employed during the construction of the Simandou Project, with December 2011 estimates predicting an average of 13 000 full time equivalent (FTE) jobs between 2012 and 2015, with a peak of up to approximately 15 600 FTE jobs at the construction phase’s most intensive period and a scaled down construction workforce continuing until 2017. Of these jobs, about 16% will be related to construction at the mine (ie approximately 2 100 on average, 2 500 at peak).

During construction, the majority of workers will be employed by contractors through the Project’s Engineering, Procurement and Construction Manager (EPCM). A range of skill levels will be required, from unskilled to semi-skilled to highly skilled, with requirements varying through the construction period. Examples of unskilled workers include junior traders and operators or general labour; semi-skilled workers include mechanics, maintenance personnel, service personnel, and administrators; and skilled workers include technicians, planners, and electricians. On average, approximately 20 % of workers are expected to be unskilled Guineans, 30 % skilled Guineans, 40 % skilled foreign workers, and 10 % expatriate management staff.

If the proportion of skilled and unskilled positions is the same at the mine as across the Simandou Project, then approximately 400 unskilled positions will be required during the construction phase at the mine. The Project will give priority to Guinean Nationals resident in the local study area for these unskilled positions. Around 640 skilled positions will also be available for Guinean Nationals. For these positions the mine will prioritise Guinean Nationals resident in the local study area, insofar as they meet skill requirements.

However, without mitigation measures, the likelihood that residents from the study area will be able to access many skilled positions is low, with opportunities more likely to go to experienced Guinean Nationals from other parts of the country who would move into the area or Guinean expatriates who may return to Guinea.
should management jobs be available. This is due to the fact that skill levels are low in the study area, with literacy levels in the villages ranging between 5% and 20%, reaching just under 40% in the town of Beyla. There are further contrasts by sex, with 72% of women having no education compared to 51% of men.

**Indirect and Induced Employment**

Indirect employment includes people working for enterprises providing goods and services to the mine ie suppliers. Induced employment refers to the jobs created through spending in the local economy by both direct and indirect employees.

Initially, indirect employment in Guinea through the construction supply chain is not expected to be extensive, given that many of the goods and services needed for construction will be acquired internationally. The ability of the local study area businesses to benefit as suppliers to the Project will also be limited by the undeveloped industrial and service sectors of the area and the small scale and informal nature of most businesses.

Induced employment is likely to be greater due to the increased spending power resulting from direct and indirect employment. However, the majority of construction workers will be provided with accommodation, food, leisure and other services by the Project, limiting their local purchases. Foreign workers and Guineans moving into the area to work on the mine are likely to remit the majority of their income back to their place of origin. To the extent that Guineans are employed, their revenue will remain within the Guinean economy but to a lesser extent in the local area.

An indirect and induced employment multiplier has been estimated for the Simandou Project based on the preliminary macroeconomic model (see Chapter 16: National Economy). Preliminary results from the model suggest that for every FTE job created during construction, a further 5.29 jobs will be created across Guinea. Construction at the mine, assuming an average of 2 100 direct jobs, is therefore estimated to generate approximately 11 000 indirect and induced jobs. While it is not possible to estimate how many of these jobs will be local or regional as opposed to national, the level of indirect and induced employment creation is expected to be significant.

The creation of up to 2 100 direct jobs on average (approximately 400 of which are expected to be accessible to local unskilled labourers) and an estimated 11 000 indirect and induced jobs during construction will have an effect of a medium magnitude. A number of people are expected to benefit from increased job opportunities, in part due to the creation of direct and indirect employment opportunities but principally due to induced employment. These opportunities will result in a large degree of change from baseline conditions, but only over a limited duration of time. The sensitivity of the population is considered high, as the greater percentage of unskilled jobs in the phase enhances the possibility that the broader population will benefit, including those with low skill levels. The mine thus is anticipated to result in a major positive impact for the local population and economy.

**17.3.2.2 Operation Phase Impacts**

As in construction, operation impacts will include direct employment as well as indirect and induced employment, which are considered in the sub-sections below.

**Direct Employment**

By the time the Simandou Project as a whole reaches full capacity in 2020, it is expected to have an operational workforce of approximately 5 400 personnel. Of these, approximately 2 050 workers are expected to be based at the mine, including 1 525 Project employees and 525 contract staff responsible for security, catering, housing, and cleaning.

Local workers are expected to be qualified to fill many unskilled positions, while a limited number of Guinean Nationals from the study area will be sufficiently qualified for skilled positions. The skilled workforce may therefore need to be recruited from elsewhere in Guinea, and, if needed, from outside of Guinea.
Expatriate employment will be avoided to the extent possible as part of the Project’s commitment to foster employment for Guinean Nationals. The Project aims to increase the proportion of Guinean employees to total employees from approximately 70% at the start of operation to more than 90% by 2020, with an increasing proportion of managerial and skilled positions being filled by Guineans over time. However, the majority of the skilled workforce is likely to be recruited internationally at first should suitably qualified Guinean Nationals not be available.

**Indirect and Induced Employment**

The employment multiplier as estimated by the Project through its preliminary macroeconomic model predicts that for every FTE job created during operations, a further 4.72 jobs will be created in the supply chain across Guinea. Therefore, if this multiplier is applied to all components of the Project, the 2,050 FTE jobs at the mine could result in an additional 9,700 jobs in the wider economy. It is also likely that due to immigration the population in the local study area will have grown over the operation phase, possibly doubling or trebling over the next ten years, with an associated spending increase in the local economy, and the expansion of existing or creation of new businesses to provide goods and services to meet the demand. Given the longer duration of operation, more jobs during this period are likely to remain in the local and regional economy than during construction.

The creation of an estimated 2,050 direct jobs and 9,700 indirect and induced jobs over the approximately 40-year operation period will have an effect of a medium to large magnitude. A substantial number of people are expected to benefit from increased job opportunities, in part due to the direct and indirect employment opportunities created but principally due to increased spending and demand in the local economy and the opportunities to service these demands through induced employment. These opportunities will result in a large degree of change from baseline conditions and over an extended period of time. The sensitivity of the population is considered medium, as the majority of jobs will require skilled labour and thus may be accessible to only a limited segment of population possessing high skill levels. Accordingly, the mine is anticipated to result in a moderate to major positive impact for the local population and economy.

**17.3.2.3 Closure Phase Impacts**

Closure will involve large scale downscaling and retrenchment of the workforce over a number of years. By that time, however, a large number of Guinean professionals will have worked on the mine, and will constitute a reserve of trained workforce. A small workforce will remain to undertake mine decommissioning and managed closure. The size of this workforce is not yet defined but national and local employment will be maximised and skills transfer and capacity building will continue. Nonetheless, the downscaling and retrenchment will mean that many people previously directly or indirectly employed through the mine will lose their livelihood. Employees of businesses dependent on the mine for demand for their goods and services may also lose their jobs unless there are similar demands from other clients in the surrounding area.

Assuming that there are other mining or industrial projects with a high demand for workforce operating at the time of decommissioning, people who will have worked for the mine are likely to have a significant advantage compared to the rest of the local population when competing for similar types of employment opportunities. They might therefore have good employment opportunities, potentially within positions requiring a more advanced skill set than they had been initially eligible for at the start of mine construction or operation.

Given the population’s expected dependence on the mine for their livelihoods and businesses, the closure phase is expected to have an effect of a large magnitude at the local level, with lesser effects at the regional and national levels. The sensitivity of the population is considered medium, as people are expected to have acquired transferable skills during the Project’s operation phase that could potentially be used with other businesses, assuming they demand similar workforce skills, goods, and services. Accordingly, it is expected that during the closure phase there may be a major negative impact on the affected population with respect to employment levels in the absence of Project mitigation.
17.3.3 Work Skills and Experience

The direct and indirect employment on the mine will provide the opportunity for people to improve their work skills and experience, not only through on-the-job training but also courses in topics such as Health, Safety and Environment (HSE) standards. The mine also offers exposure to the requirements and ways of work of a multinational corporation, enhancing the population’s capabilities to better participate and compete in a global economy and aid the development of a knowledge-based workforce in the local study area. As most people from the local study area as well as most Guinean Nationals will begin from a relatively low base in these regards, the mine has the potential to have a significant impact on livelihoods and lifestyles, including improving the population’s potential future employability.

17.3.3.1 Construction Phase Impacts

The current reliance of most livelihoods on subsistence farming means that any skills and experience gained on the mine could be beneficial for future income-earning opportunities in a range of trades, such as mining construction and quarrying. Despite the short-term nature of construction contracts, these enhancements to the workforce profile as a result of direct and indirect employment are likely to widen opportunities, with potentially longer term effects, particularly for those individuals able to acquire or improve to semi-skilled or skilled positions.

The opportunities offered by the Project to enhance the population’s work skills and experience during the construction phase are expected to have an effect of a medium magnitude. This may differ between individuals, depending on positions for which they were hired and associated training. The sensitivity of the population is considered medium, as the population will possess varying existing skills and experience and differ in their abilities to acquire semi-skilled or skilled positions. Accordingly, it is expected that during the construction phase there may be a moderate positive impact on the affected population in the absence of Project mitigation.

17.3.3.2 Operation Phase Impacts

During operation, fewer jobs will be available than in construction, particularly with regard to unskilled positions. Thus, fewer people may be able to enjoy an enhancement of skills and experience through direct employment on the mine. However, those who remain with the mine have the potential to gain skills and experience over the long-term, which could elevate their status with the mine and increase their employability elsewhere. The Simandou Project’s commitment to increasing the percentage of Guinean Nationals in the workforce over its lifetime will also mean training will continue to be provided for national recruits. In addition, the skills and experience acquired or enhanced by employees during the construction phase may increase their capabilities for indirect or induced employment opportunities that are expected to arise locally, regionally, and nationally as a result of the Simandou Project.

The opportunities offered by the mine to enhance the population’s work skills and experience during the operation phase are expected to have an effect of a medium magnitude as skills deepen and the transfer of more skilled positions to Guinean Nationals takes place. While fewer direct positions will be available within the mine, employees who remain or are hired during this period can benefit from increased and extended training and experience. Moreover, additional skills and experience may be gained from the predicted indirect and induced employment opportunities. The sensitivity of the population is considered medium, as those individuals able to benefit from additional skills uplift and experience will be those who were already able to obtain employment. Accordingly, it is expected that the impact on the population during operation will be moderate positive.

17.3.3.3 Closure Phase Impacts

During closure, direct and indirect employees of the mine may gain some new skills and experience. However, any professional development opportunities will be short-term, with future benefits dependent on
people retaining skills and applying them to opportunities with projects other than the mine.

The opportunities offered by the mine to enhance the population’s work skills and experience during closure are expected to be limited due to the need for a relatively small team to undertake activities, and will thus have an effect of a small magnitude. The sensitivity of the population is considered medium. Accordingly, it is expected that there will be minor positive impact on the affected population during closure.

17.3.4 Opportunities and Capabilities within the Local Supply Chain

The mine will generate large contracts for the purchase of equipment and other goods and services. The majority of these contracts will be for specialist goods and services, which can currently be provided by few businesses in Guinea. Most contracts will therefore need to be sourced internationally. There is, however, still potential for a level of procurement from smaller businesses at the local, regional, and national levels which will be significant for the Guinean economy.

For Simandou Project purposes, a “local supplier” is defined as a business enterprise, including sole traders, small and medium enterprises (SME), and corporations, principally owned by permanent resident(s) of Guinea with the primary business activity being undertaken within Guinea.

Without support, local suppliers are largely anticipated to have limited capacity to meet the standards of quality and scale required by the Project. However, where they are able to take up opportunities to be part of the mine’s supply chain, enterprises can expect long lasting and sustained benefits. These benefits could include enhanced experience and training for employees (particularly in meeting stringent international standards for quality, health and safety, and environmental management) and increased delivery capacity.

17.3.4.1 Construction Phase Impacts

During construction, the mine will require highly technical capital goods and services, and it will procure these through contracts lasting several months to several years. Although most of the mine specific products will need to be sourced internationally, requirements such as civil engineering services, food supply, maintenance services for non-technical aspects, security services, buildings and facilities maintenance, general vehicle maintenance, employee transport, and land management are able to be procured from some Guinean companies. Worker camp accommodation will also provide specific opportunities for local suppliers in the services described above as well as catering, cleaning and laundry.

At a national level the procurement spend, although relatively limited, will increase the contribution to the Guinean economy (see Chapter 16: National Economy). Local supply programmes have already been initiated to maximise national procurement wherever practicable. In 2011 the Project spent more than US$25 million on goods and services within Guinea. The Project has also committed to enhancing local procurement through its ‘Guinea Buy Local Programme’ (GBLP) (see Section 17.5.3.2).

In the local study area, direct procurement is expected to be limited due to the largely undeveloped economy (with the majority of businesses related to the production and trade of agricultural goods) and the low capability and capacity of service providers to meet the needs of the mine. While some businesses in the local study area may eventually be in a position to enter the mine’s supply chain, in part through participation in Project training programmes, few are expected to do so in the early phases of construction.

During construction, the mine is expected to bring opportunities to, and improve capabilities within, the local supply chain through its provision of procurement contracts for a number of goods and services. The contracts are considered to have an effect of a small to medium magnitude, given limited numbers of non-technical contracts accessible to local suppliers. The sensitivity of the population is considered medium, including only those business owners and employees who possess the capability and capacity to take advantage of available opportunities. As such, it is expected that during the construction phase there may be a minor to moderate positive impact on the affected population.
17.3.4.2 Operation Phase Impacts

It has been estimated that by 2023 the Simandou Project’s annual requirements for materials, facilities, and services, including payments to contractors, will equate to US$745 million. The potential exists for Guinean businesses to develop and grow to meet a significant proportion of these direct procurement needs during the mine’s operation phase, particularly through the Project’s continued investment and application of the GBLP. In addition, local suppliers who will have been involved in the mine during the construction phase will have experience with the Project’s procurement requirements and be better able to meet mine needs during operation.

In the study area, access to Project training services through the Beyla Enterprise Centre and other Project initiatives are likely to help businesses better meet projected increases in demand for goods and services from those directly or indirectly employed by the mine and other in-migrants to the area, and thus improve their participation in indirect procurement within the mine supply chain.

Mine operations are expected to bring increased opportunities and capabilities within the local supply chain, both through direct contracts with the mine as well as indirect procurement opportunities to meet growing local demand for goods and services. Supply chain opportunities are considered to have an effect of a medium magnitude, given limited numbers of non-technical contracts accessible to local suppliers but also increased general demand from the Project. The sensitivity of the population is considered medium, with the population anticipated to grow more resilient through exposure to Project requirements over the phase’s duration. As such, it is expected that there will be a moderate positive impact on the affected population during operation.

17.3.4.3 Closure Phase Impacts

The closure of the mine will result in the termination of procurement contracts associated with operations. This may have significant implications for businesses that have become dependent on the mine. Some companies will have an opportunity to become involved in the closure process and to benefit from its longer term activities. However, these benefits will be minimal in comparison to operations phase requirements.

The Project’s closure phase activities are expected to largely bring an end to the provision of procurement contracts to local suppliers, having an effect of a medium magnitude. The sensitivity of the population is considered medium, as local suppliers will have gained experience and exposure to meeting standards of quality and scale that could be transferrable to other non-business opportunities. As such, it is expected that there will be a moderate negative impact on the affected population during closure.

17.3.5 Economic Development and Diversification

Project procurement and expenditure from workers during mine construction and operation is expected to result in the growth and diversification of the economy in the study area. Increased income from direct and indirect employment will also allow for improved living conditions for local households. Those benefiting from mine employment opportunities are likely to experience significant uplift in their economic status, particularly if longer-term employment opportunities are gained. In addition, in-migrants to the area are likely to bring different goods, services, and knowledge, which may be shared and transferred locally. Economic development and diversification is already evident in places such as Moribadou, where economic activity (though mostly informal) has boomed since 2007 as a result of Project employment and expenditure related to Simandou concession area exploration activities.

As noted at stakeholder engagement events for the SEIA between September and October 2011, economic development and diversification will mostly be experienced as a positive impact for the majority of stakeholders (ie those who value the change and development, specifically the youth). However, it must be emphasised that the mine will be unable to provide employment to the entire local community, and not everyone may have the opportunity to create a business that would benefit from induced commercial opportunities. Many local residents in the local study area may therefore not be able to benefit from the
development opportunities associated with the mine.

17.3.5.1 Construction Phase Impacts

During construction, there will be opportunities for economic development and diversification to meet the needs of growing communities and in-migrants in the study area, such as the provision of basic household goods (e.g., building materials, food, clothing). During this time, local communities and in-migrants are expected to begin to adapt their businesses to meet these increased needs.

Construction is expected to bring increased opportunities for economic development and diversification, particularly at the local level. The new opportunities are considered to have an effect of a medium magnitude, given that they will last for the duration of construction with the potential to extend throughout the mine lifetime. The sensitivity of the population is considered medium, as only those able to exploit new opportunities through resources such as credit and business skills are expected to benefit most. As such, it is expected that during construction there will be a moderate positive impact on the affected population.

17.3.5.2 Operation Phase Impacts

During operation, the needs of the population will continue to grow and become more sophisticated. Demand will be driven by increased disposable income. The economy will adapt to meet the demands for goods and services, therefore resulting in ongoing economic development and diversification.

Operations are expected to positively impact the local level in the study area. The opportunities for growth and diversification are considered to have an effect of a medium to large magnitude, given the range of needs and demands across the study area and increased capacity among individuals in mobilising resources to meet that demand. The sensitivity of the population is considered medium as those able to exploit new opportunities through resources are expected to benefit most. As such, it is expected that there will be a moderate to major positive impact on the affected population during operation.

17.3.5.3 Closure Phase Impacts

At closure, it is likely that there will be a high reliance on the mine supply chain and the demand for goods and services created by mine employees and their families. If left unmitigated, the adverse impact of a substantial reduction in employment, economic demand and opportunity on the local economy could be significant.

The demand for goods and services will no longer be present and it is likely that these sectors will have grown to meet the needs of the mine. The mine will no longer be contributing to economic development and diversification. Some employees and their families will find other employment opportunities and will remain within the local study area if there are other mining or industrial developments, generating continued indirect demand for goods. For many, a return to land-based livelihoods will be impossible. Mine closure is anticipated to affect the economy of the local area as well as the regional economy, especially for nearby towns and villages such as Beyla, Moribadou, Nionsomoridou and Traoréla.

Closure of the Project is expected to significantly reduce economic development and diversification activities, especially at the local level. Closure is considered to have an effect of a medium magnitude, given that it will take time before the population adjust to withdrawal of opportunities and support to businesses. The sensitivity of the population is considered medium to high, as some people will have increased capacity to continue to develop and maintain livelihood strategies while others may struggle with the transition. As such, it is expected that there will be a moderate to major negative impact on the affected population during closure.
17.3.6  Boom-Bust between Construction and Operation

As described in Section 17.3.2 above, there is a distinct differential between worker numbers and the levels of skill required between construction and operation. A number of temporary employment contracts will come to an end after construction, and the number of indirect and induced jobs created during construction will also decrease with falls in demand for goods and services.

The extent of this impact will depend on a number of aspects as listed below.

- The extent to which employment during construction has been taken up by people from the local area versus foreigners and Guinean Nationals from outside the study area who are anticipated to return to their domiciles at the end of construction. The out-migration of these workers will likely have implications for spending on local goods and services and the development of economic activities in the study area. However, given the Project’s commitments to local employment, it is likely that a substantial number of the unskilled construction jobs will have been taken up by people living in the mine study area.

- The extent of in-migration to the area during construction and the number of in-migrants that have gained employment during this time. As discussed in Chapter 18: Project Induced In-Migration, a significant amount of in-migration to the local study area is expected during construction, principally to Beyla, Nionsomoridou, Moribadou and other villages near the mine and its access road.

- The extent to which the local economy has developed and to which this economy is dependent on the mine. Shrinkage in direct employment and indirect employment through procurement opportunities will lead to a significant decrease in economic activity and associated benefits. This shrinkage can also have knock-on effects for induced employment in small commerce activities, which are anticipated to arise in response to demand from direct and indirect employees for goods and services. Again, this effect is likely to be felt most acutely in the more developed towns and villages such as Beyla, Moribadou and Nionsomoridou.

17.3.6.1  Impacts between the Construction and Operation Phases

The mine transition from construction to operation will result in a decrease in direct, indirect, and induced employment opportunities with a “boom-bust” effect. This effect is considered to be a medium magnitude. This is due to the short-term nature of the contracts and the progressive downscaling of the construction workforce over time. The sensitivity of the population is considered high, with study area individuals’ generally low ability to adapt to changes in workforce requirements. As such, this process is expected to result in a major negative impact on the affected population.

17.3.7  Price Inflation and Economic Vulnerability

Increased expenditure in the study area will have the potential to trigger inflation in local prices. This has already been experienced in Moribadou, where there was significant inflation in the cost of rice associated with in-migration to the area in 2008. Other categories of goods and services that may experience price increases include construction materials, food, fuel and transport.

The Project’s land take as well as in-migration may further contribute to an increase in food prices as a result of decreased agricultural supply. Land pressures are already being seen in Moribadou and Beyla, where property prices are increasing rapidly to meet the additional and anticipated demand. (This increased demand is also affecting the traditional land ownership and exchange mechanisms, as discussed in Chapter 20: Social Structures and Community Life.)

17.3.7.1  Construction Phase Impacts

The risk of price inflation in the local study area will be highest during construction, particularly at its peak, as
this phase will typify by a high increase of expenditure over a relatively short period, with limited time for anticipation and adaptation to the additional population. This impact will be particularly significant for those who are economically vulnerable and have limited ability to take up opportunities to increase their income and therefore adapt to increasing prices. As the majority of the population in the study area are of low educational and skills levels, most people will be vulnerable to these changes.

The mine's construction phase activities are expected to impact prices, in particular in the areas of high demand for goods – including land – and services (ie Beyla, Moribadou and Nionsomoridou). The activities are considered to have an effect of a large magnitude, as this trend has already experienced in the local study area, where strong demand and limited supply has resulted in increased prices. The sensitivity of the population is considered high, as communities are expected to have very little ability to adapt to the increase. As such, it is expected that there may be a critical negative impact on the affected population during construction.

17.3.7.2 Operation Phase Impacts

Following the initial construction boom, the demand for goods and services is likely to level out or even decrease as the operation phase begins. Over time, throughout the operation phase, the increased demand is likely to be met through local market adaptation and an associated increased supply of goods and services. Prices should therefore level off again after a few years. This should contribute to reducing the negative impacts on the population and the economically vulnerable over time. The general level of prices is likely to remain higher than the original prices, particularly where demand remains high but supply remains relatively static (eg the property market), particularly in places of high in-migration.

The mine's operation phase activities are expected to impact prices and exacerbate the economic vulnerability of the majority of people at the local level in the study area, having an effect of a medium magnitude. The sensitivity of the population is considered high, as abilities to adapt among the population will vary and many may remain economically vulnerable due to low levels of education, skills, and experience, and continued dependence on a subsistence economy. As such, it is expected that during the operation phase there may be a major negative impact on the affected population in the absence of Project mitigation.

17.3.7.3 Closure Phase Impacts

During closure, household incomes may decrease due to fewer job opportunities, resulting in a greater percentage of household expenditures on basic needs and increased sensitivity to prices. It is likely that those who are already vulnerable in the study area will be made increasingly more vulnerable due to decreased economic activity, shrinkage of the population and oversupply of labour in the area. People who adapted to the increased demands of the more vibrant economy will be particularly vulnerable, potentially over the longer term. The impact may be less severe if other developments have begun in the area which diversify the economy and decrease the dependency of the local economy and the population on the Project.

The Project’s closure activities are expected to result in lower levels of price inflation as a result of decreased demand, but increased economic vulnerability and price sensitivity among those whose livelihoods have directly or indirectly depended on the Project. Activities are therefore considered to have an effect of a medium magnitude. The sensitivity of the population is considered medium to high. While many within the local population are expected to have become more skilled over the Project lifetime and therefore possess greater resilience to change, others may struggle with the transition. As such, it is expected that there may be a moderate to major negative impact on the affected population during closure.
17.3.8 Unmet Expectations

There are high expectations amongst the local community in terms of employment associated with the Project, including the mine. However, it is likely that the skilled personnel required for many jobs during the construction and operation of the mine are not available in the local study area and are generally scarce in Guinea. Many study area residents may be further limited by low levels of education and a general absence of formal or on-the-job training opportunities to acquire the requisite skills (beyond those offered by the Project in recent years). Illiteracy levels exceed 90% in some local study area villages and as little as 5% of the population is engaged in formal employment activities.

An influx of in-migrant job seekers into the area, both foreign and Guinean Nationals from other parts of the country will significantly increase local competition for employment opportunities. It is possible that some of these migrants will have gained relevant skills in mining and construction in other projects in Guinea and elsewhere, which will be an advantage in seeking work positions within the mine.

The results of stakeholder engagement and community feedback indicate that the youth have particularly high expectations of waged employment with the Project and an expressed disinterest in working in agriculture. In addition to the enthusiasm and the sense of entitlement to work that is often felt by youth globally, young men applying for jobs will be aware that they are fit and strong and thus more suited to manual labour and construction jobs. This perception will be compounded by a sense of entitlement to jobs created in the region, which has the potential to result in tension (and potentially violence) against any in-migrants competing for the same employment opportunities.

17.3.8.1 Construction, Operations, and Closure Phase Impacts

Activities throughout the mine lifetime may result in increased tensions and conflict within and between communities, and between original residents and in-migrants in particular, around real and perceived access to Project opportunities. This could in turn have an impact on relationships between the Project and populations within the study area who feel excluded from the mine’s benefits.

Tensions associated with unmet expectations related to the mine will fluctuate over the course of its lifetime, as the economy adjusts to its natural equilibrium and accommodates the operational profile. The magnitude of the impact is therefore considered medium. The sensitivity of the population is considered high, due to the population’s low ability to adapt, the context of very high expectations, and the large scale in-migration expected into the area. As such, it is expected that during all mine phases there may be a major negative impact on the affected population.

17.4 Mitigation and Residual Impacts

17.4.1 Overview

This section presents Project mitigation measures for potential impacts on employment and economic development. As noted in the impact assessment above, these impacts include changes to:

- employment levels;
- work skills and experience;
- opportunities and capabilities within the local supply chain;
- economic development and diversification;
- boom-bust between construction and operation;
- price inflation and economic vulnerability; and
- unmet expectations.

As background to the mitigation measures presented, this section first describes the Social Management Framework (SMF) through which the Project will address socio-economic and community impacts. The section then summarises all mitigation measures for impacts on employment and economic development.
Finally, the section assesses the residual impact significance for each specific impact following the application of mitigation measures.

17.4.2 Framework for Mitigation Measures

To mitigate adverse socio-economic impacts and enhance positive benefits among the communities in which it operates, the Project has developed a Social Management Framework (SMF). The SMF falls under the Project’s Regional Development Strategy (RDS) and is designed to help to fulfill its objectives.

17.4.2.1 Regional Development Strategy

The Regional Development Strategy (RDS) identifies the ways in which the Project can facilitate and support linkages between the entire region affected by the Simandou Project and national and local development initiatives in Guinea. The Project aims to extend benefits beyond the life of the Simandou Mine by integrating sustainability considerations into all Project decisions and partnering with local and international organisations on development issues. The objectives of the RDS are for the Project to:

- avoid a net adverse impact on socio-economic conditions;
- become a catalyst of growth so that the Project, the government, donors and other investors can direct resources to well planned development initiatives in a coordinated way; and
- to the extent possible, ensure that local development aspirations are met.

Stakeholder involvement is considered critical to the Project’s alignment with Guinean development objectives. Accordingly, in 2012 the Project will establish a dedicated multi-sector forum (referred to at present as the ‘Regional Development Forum’) representing the Project, various levels of government, communities, and other stakeholders. The Project will also provide funding for the first regional economic plan. Thereafter, the Project envisages that its role would be that of a catalyst and long term stakeholder rather than owner, and that funding for the process in the mid- and long-term would be delivered through a fund established for this purpose (referred to at present as the ‘Simandou Development Fund’).

17.4.2.2 Social Management Framework

The Social Management Framework (SMF) provides a structure for the detailed design and implementation of the Project’s social mitigation measures, which will be captured in a series of Social Management Plans.

As illustrated in Figure 17.2, the SMF groups social mitigation measures into a number of programmes under four themes: Urban and Rural Planning; Employment Creation and Livelihoods; Community Health, Safety, and Security; and Cultural Heritage and Awareness. These themes serve to highlight linkages between mitigation measures developed for different impacts and to promote coordination of efforts during detailed mitigation design and implementation. The Social Management Plans will describe detailed actions, indicators and targets for each theme to be achieved through their respective programmes.

The detailed design and implementation of the SMF will be influenced by a number of factors:

- **Prioritisation**: The Project will prioritise mitigation measures that address negative impacts and risks, with special attention given to negative impacts anticipated to be of major or critical significance. Implementation timeframes will take into account the Project schedule and apply urgency in delivering measures that meet immediate needs in the first year of a given phase (e.g. construction), which may then be enhanced and expanded in subsequent years to encourage broader and lasting benefits. The Project will also consider appropriate target populations for mitigation, first prioritising Project affected communities (those affected both directly by Project activities and indirectly by in-migration pressures) and vulnerable groups within those communities over other potential beneficiaries. Recognising that impacts, risks, and affected populations (including vulnerable groups) may change over time, the Project will adapt its prioritisation process to findings from ongoing monitoring as necessary.
• **Alignment:** Where possible, the Project will align its mitigation with the development policies and plans of local communities and government authorities (e.g., Local Development Plans, Poverty Reduction Strategy Paper) and objectives identified in relevant development forums (e.g., Simandou Development Forum, the Village Support Programme (PACV)). Broader efforts to positively transform Guinea’s socio-economic environment will fall under the responsibility of the RDS. While it is anticipated that the RDS and SMF will work together to maximise the value of mitigation by identifying appropriate partnerships and avoiding programmatic gaps or overlaps with other development entities, the SMF will initially maintain Project attention on the timely mitigation of negative impacts in Project-affected communities.

• **Stakeholder Engagement:** The Project will engage a variety of stakeholders to consult, exchange information, and work in partnership on detailed mitigation design and implementation. Consultation with Project affected communities in particular will be a critical factor in the design of the Social Management Plans. Any concerns regarding mitigation measures or Project activities will be managed through the Project Grievance Procedure (see Annex 1G: Simandou Project Grievance Procedure) and the outcomes arising from grievance resolution will inform the evolution of mitigation. In addition, the Project will support capacity building within government and civil society organisations to enhance their capabilities over time to participate in mitigation design, implementation, and monitoring. The Project Stakeholder Engagement Plan will describe the processes by which these engagements and partnerships will be managed. The Project will regularly review the efficacy of its engagement and partnerships and adapt activities when appropriate to support the achievement of its mitigation targets.

Mitigation measures for impacts on employment and economic development will be implemented through the SMF’s Employment Creation and Livelihoods theme. These programmes include:

- Employment and Work Readiness;
- Local Procurement;
- SME Development; and
- Agriculture and Food Security (1).

Each of these programmes and their associated activities are discussed below.

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(1) Resettlement and Livelihood Restoration, the remaining SMF programme within the Employment and Livelihoods Creation theme, specifically targets resettled individuals and households and will be guided by the Project’s Resettlement and Compensation Action Plan Framework (PARC Framework; see Chapter 18: Land Use and Land-Based Livelihoods) with the objective of meeting IFC Performance Standard 5 and other requirements. While it is anticipated that the Resettlement and Livelihood Restoration programme will coordinate closely with the other programmes listed here, it is not considered further in this chapter.
Figure 17.2 Simandou Project Social Management Framework

**REGIONAL DEVELOPMENT STRATEGY**

**SOCIAL MANAGEMENT FRAMEWORK**
- Vision and Objectives
- Organisation
- Funding
- Programmes
- Schedule
- Communication
- Monitoring and Evaluation

**Programme Development**

**Prioritisation**
- Project Affected Peoples Beneficiaries
- Impacts and Risks
- Project Phase

**Alignment**
- Development Policies
- Regional Development Forum
- PACV
- Studies and Analysis

**Urban and Rural Planning**
- Resettlement and Livelihood Restoration (PARC Framework and Implementation)
- In-Migration
- Employee Housing
- Infrastructure

**Employment Creation and Livelihoods**
- Agriculture and Food Security
- Local Procurement
- SME Development
- Employment and Work Readiness

**Community Health, Safety, and Security**
- Community Health
- Community Safety and Security
- Human Rights

**Cultural Heritage and Awareness**
- Tangible Heritage
- Intangible Heritage

**Stakeholder Engagement**

**Capacity Building**
- Government
- Donors
- Communities
- Civil Society and NGOs
- Private Sector

**Consultation, Information Exchange, and Partnerships**

**Grievance Management**

**Beneficiaries**
- Project Affected Peoples
- In-Migration
- Employee Housing
- Infrastructure

**Imacts and Risks**
- Resettlement and Livelihood Restoration
- In-Migration
- Employee Housing
- Infrastructure

**Development Policies**
- Regional Development Forum
- PACV
- Studies and Analysis

**Regional Development Forum**
- Resettlement and Livelihood Restoration
- In-Migration
- Employee Housing
- Infrastructure

**PACV**
- Resettlement and Livelihood Restoration
- In-Migration
- Employee Housing
- Infrastructure

**Studies and Analysis**
- Resettlement and Livelihood Restoration
- In-Migration
- Employee Housing
- Infrastructure
17.4.3 Employment and Work Readiness

The Employment and Work Readiness programme will include a number of recruitment and employment preparation activities. The programme can be divided into three categories:

- recruitment and retrenchment, which focuses explicitly on recruitment (and retrenchment at the end of Project phases) from communities for direct Project employment;
- vocational training, which prepares individuals with specific skills required for direct Project employment or advancement; and
- education, which provides communities with opportunities to enhance their general knowledge and skills for waged employment (with the Project or elsewhere) and entrepreneurship.

Recruitment and retrenchment activities, while incorporated into the SMF, will be managed by the Simandou Project Human Resources Department but closely coordinated with the Communities and Economic Development Departments.

17.4.3.1 Recruitment and Retrenchment Activities

The objectives of the Project’s recruitment activities are to:

- adopt a management hierarchy for maximising national and local employment, particularly for those living in the study area; and
- ensure a transparent and fair recruitment procedure and processes by the Project and its contractors.

To accomplish these objectives:

- the Project will develop, keep under review, and update an Employment Plan with the objective of increasing national employment and transferring operational positions from expatriate staff to Guinean Nationals once the necessary skills and experience have been acquired;
- the Employment Plan will include annual targets for employment and training of Guinean Nationals. Employment targets will be set and tracked for women, and the Project will use affirmative action to ensure women have equal access to training. The Project will also monitor the participation of young people up to 24 years of age;
- the Project will preferentially hire unskilled labour from local communities using a transparent process for distribution of opportunities developed in consultation with the local community and taking into account other impacts on individual settlements. Resettled households will have priority access to vocational training and employment;
- the Project will not employ children under the age of 16 (minimum working age in Guinea) and will only employ young people between 16 and 18 in suitable roles;
- the Project will establish Local Employment Offices at key locations to facilitate access to employment opportunities for local candidates with appropriate skill sets. A database of people looking for work will be maintained and will identify candidates’ place of origin. The location of Local Employment Offices and Project policy in this regard will be communicated widely in relevant areas including via communication activities targeted at potential in-migrants;
- there will be no recruitment ‘at the gate’ and all recruitment will be managed from the Project’s Local Employment Offices; and
- all recruitment and employment policies and procedures will be publicly disseminated throughout key locations in the Project area in local languages.
To minimise the impact of job losses between phases and upon closure, the Project will:

- offer a certificate of employment experience and training to construction workers at the conclusion of successful employment; and

- develop a Retrenchment Plan that takes into account changes to direct, indirect, and induced employment during transitions between Project phases. Through the Plan, the Project will develop and implement:
  
  - communication timetables to prepare employees and the broader community of Project phase transitions and implications for direct, indirect, and induced employment. (Communication activities with the broader community will be included in the Project Stakeholder Engagement Plan.);
  
  - outplacement services and skills training for retrenched staff; and
  
  - assessments of the Project supply chain (including both indirect and induced businesses) prior to the next phase to determine regional and local economic linkages with the Project. Following those assessments, the Project will develop appropriate responses to support businesses’ capacity to meet new demands or expand into alternative markets (eg industry referrals, access to finance, vocational training for SMEs).

17.4.3.2 Vocational Training Activities

Improving the technical skills of potential Project recruits will be essential in maximising access to employment opportunities. To support skills uplift, the Project will develop and implement a Work Readiness and Vocational Training Plan in consultation with local stakeholders, including women’s groups. The Plan will:

- identify the skill needs of the Project and skills gaps in the local community;
- provide training for local people to meet Project needs; and
- identify and focus on the particular needs of women and youth and design trainings to encourage their participation (1).

The Project will also establish and equip Work Readiness and Vocational Training Centres in key locations. Partnerships with the local administration and international agencies will be pursued in order to enhance programme delivery.

17.4.3.3 Education Activities

To support the promotion of education and skills uplift among local communities, the Project will:

- implement a scholarship programme to encourage the study of subjects of relevance to Project needs;
- work with government authorities to expand schools and other education facilities and programmes (eg literacy) in key locations; and
- work in partnership with government authorities and relevant organisations where available and appropriate (eg donors, civil society and NGOs) to establish a plan for sustainable educational development in the Project area, with a focus on empowerment of women and youth.

(1) Mitigation measures targeting youth will be directed towards young men and women approximately 15 to 24 years of age. However, this range may be adjusted upwards or downwards as determined to be appropriate for the Guinean context through ongoing stakeholder feedback, and as required by applicable Guinean laws (eg the minimum working age of 16 years may limit youth’s participation in certain employment or vocational training activities). See Chapter 15: Socio-Economic and Community Baseline for further details.
17.4.4 Local Procurement

The Project will give preference to procuring goods and services within Guinea, provided that suppliers meet Project requirements for delivery, quality and health, safety, and environment (HSE) standards, and that local access to goods and services is maintained. Local suppliers are defined as sole traders, small and medium enterprises (SMEs), or corporations, principally owned by permanent resident(s) of Guinea with the primary business activity being undertaken within Guinea.

The Project aims to maximise local procurement through its ‘Guinea Buy Local Programme’ (GBLP), a programme developed in partnership with the IFC. Beginning in 2012, the GBLP will operate with a budget of approximately US$4-5 million over three years, with 70% of funding provided by the Project and 30% provided by the IFC. (The Project will continue to support the GBLP or other local procurement activities in partnership, where available and appropriate, with the IFC or other donors, civil society organizations, or NGOs beyond this three year period to address needs throughout the Project lifecycle.) As part of GBLP, the Project will:

- carry out an audit of local businesses and their capacity to meet Project needs, including those businesses in the study area, and maintain a database of local business information;
- establish relevant training and capacity building initiatives to support businesses’ ability to meet the Project requirements, based on audit results and needs assessments;
- adapt Project procurement documents to suit local businesses as far as possible within the standards required of the Project;
- provide incentives for Project contractors to purchase locally and partner with local businesses, including tender requirements regarding local procurement;
- establish local procurement and business development offices in central and accessible locations to enhance accessibility of information about contract and training opportunities, and promote opportunities through trade forums and other events;
- create an SME electronic portal to facilitate communication of contract opportunities and management training materials to SMEs;
- partner with relevant organisations where available and appropriate (eg donors, civil society and NGOs) to provide access for local businesses to finance and advisory services in order to develop their capacity to competitively supply to the Project. These services will be publicised in the Project area; and
- promote the GBLP to the government and local communities in a transparent and culturally appropriate manner, and disseminate procurement opportunities as early as possible, with clearly defined requirements for the goods or service to manage expectations.

The numbers of local businesses used by the Project at all levels will be tracked. Targets will be developed with the aim of increasing local procurement over time.

17.4.5 SME Development

The Project will support other SME development programmes for people and businesses not part of the Project supply chain, to help equip communities to take up wider economic development opportunities and promote induced employment. In undertaking these programmes, the Project will:

- conduct needs assessments to understand local demand and community priorities;
- partner with relevant organisations where available and appropriate (eg donors, civil society and NGOs) to maximise reach to vulnerable populations including women, youth, and the very poor;
• consider a range of support for targeted beneficiaries, including skills training, access to equipment and other inputs (including through microfinance), and establishing market linkages; and

• aim to strategically connect SME development programmes to other Project mitigations, such as those related to agriculture and food security (see Chapter 19: Land Use and Land-Based Livelihoods) and urban and rural planning (see Chapter 20: Social Structures and Community Life).

17.4.6 Agriculture and Food Security

The Agriculture and Food Security programme will mitigate potential impacts to land use and land-based livelihoods while also facilitating strategic market linkages with the wage-based economy through other programmes within the Employment and Livelihoods Creation theme. Agriculture and Food Security activities are discussed in Chapter 19: Land Use and Land-Based Livelihoods, with the exception of programme activities related to the potential impact on local prices, which are discussed here.

To address the potential impact on prices and economic vulnerability the Project will, in partnership with government authorities:

• monitor inflation statistics at the local and national levels (using indicators including local land prices and staple foods);

• monitor the availability of staple foods to meet both Project and local community demand; and

• develop appropriate interventions where inflation or limited food supply cause negative pressures to local communities and are identified to be linked to direct or indirect Project activities (e.g. Project food purchases, in-migration), taking into account the needs of identified vulnerable populations, such as the elderly and women.

17.4.7 Residual Impacts

Following the implementation of the mitigation measures above it is expected that the significance of impacts on employment and economic development will change as follows.

17.4.7.1 Employment Levels

The impact assessment determined that in the absence of Project mitigation the mine would have a major positive impact related to employment levels during construction and a moderate to major positive impact during operation. Closure was expected to have a major negative impact (see Section 17.3.2).

As noted above, a number of Project mitigation measures commit to enhancing local communities’ employment opportunities. To support direct employment the Project will establish annual targets for the employment and training of Guinean Nationals (with specific targets for women). To support indirect and induced employment, the Project will provide a number of education and training opportunities as well as SME development support. Recognising the potential negative impacts brought by the downsizing of employment in the transition between the construction and operation phase, as well as during the closure phase, the Project will also develop and implement a Retrenchment Plan to better facilitate the transition of workers into new opportunities in the market.

It is anticipated that with the implementation of these mitigation measures the Project will improve the ability of local communities to obtain direct employment opportunities, including those requiring particular skills. The Project will also improve SME capacity, which will bolster economic development and encourage further indirect and induced employment creation. As a result, the residual impact on employment levels is expected to increase to major positive in construction and operation and moderate negative during closure.
17.4.7.2 Work Skills and Experience

The impact assessment determined that in the absence of Project mitigation the mine would have a moderate positive impact related to the enhancement of work skills and experience during construction and operation. Closure was expected to have a minor positive impact (see Section 17.3.3).

Project mitigation measures note a commitment to employing and promoting Guinean Nationals to skilled positions anticipated to initially be filled by expatriate staff, and to expanding the base of the trained population and providing opportunities for skills uplift beyond the Project workforce. Examples include establishing annual targets for the employment and training of Guinean Nationals, including women, as well as the creation of Work Readiness and Vocational Training Centres, scholarship programmes, and the GBLP. The Project has also considered phase-specific needs, including training construction staff for operational positions, offering a certificate of skills and experience to employees to record uplift for the benefit of future employers, and providing training to staff and local businesses as appropriate to support employment transitions between phases and following mine closure.

It is anticipated that with the implementation of these mitigation measures the Project will reduce the work skills deficit present in the study area and provide local communities an opportunity to acquire and deepen skills during the mine lifetime. As a result, it is expected that the residual impact on works skills and experience will increase to major positive during construction and operation and remain minor positive during closure.

17.4.7.3 Opportunities and Capabilities with the Local Supply Chain

The impact assessment determined that in the absence of Project mitigation the mine would have a moderate positive impact related to increased opportunities and capabilities within the local supply chain during construction and operation. Closure was expected to have a moderate negative impact (see Section 17.3.4).

Project mitigation measures optimise opportunities and capabilities in several ways. These include an emphasis on the enhancement of potential SME employee skill sets and general business development support (e.g., vocational training and literacy programmes, GBLP emphasis on business plans and access to finance); targeted preparation of potential suppliers to meet Project procurement requirements (e.g., GBLP trainings on HSE and quality standards); management commitments to enhance local procurement through the identification of local suppliers (e.g., contacts database) and subcontractor requirements; and consideration of supplier impacts in closure planning.

It is anticipated that with the implementation of these mitigation measures the Project will help integrate local businesses in its supply chain and other community supply chains through expanded knowledge of supply chain requirements and enhanced capacity to meet demand. As a result, it is expected that the residual impact on opportunities and capabilities with the local supply chain will increase to major positive during construction and operation. The Project’s planned support to local suppliers to specifically ease transitions during mine closure, which will largely bring an end to procurement contracts, is expected to reduce the residual impact during closure to minor negative.

17.4.7.4 Economic Development and Diversification

The impact assessment determined that in the absence of Project mitigation the mine would have a moderate positive impact related to economic development and diversification during construction, a moderate to major positive impact during operation, and a moderate to major negative impact during closure (see Section 17.3.5).

By expanding a broad range of individuals’ skill sets and experience (including women and youth) and supporting small business growth through measures such as vocational training, leadership and education programmes, and the GBLP, the Project can encourage individuals’ increased employment and earning abilities as well as small business capabilities to meet changing consumer needs. These mitigation measures can then bolster both the demand and supply of goods and services. As a result, it is expected
that the residual impact on economic development and diversification will increase to **major positive** during construction and operation and **minor to moderate negative** during closure.

17.4.7.5 **Boom-Bust between Construction and Operations**

The impact assessment determined that in the absence of Project mitigation the mine would have a major negative impact related to a boom-bust event between construction and operation (see Section 17.3.6).

The Project will undertake a number of measures designed to lessen the impact of demobilisation including: providing training to construction phase employees so that they can be retained for work during the operation phase where suitable opportunities are available; providing construction phase workers with certificates of employment experience and training at the conclusion of successful employment; and developing a Retrenchment Plan that provides communication timetables, outplacement services, and skills training to staff, and also supports Project supply chain assessments to develop appropriate responses to businesses contributing to indirect and induced employment opportunities in the study area.

It is anticipated that with the implementation of these mitigation measures the Project will provide workers the skills and experience to seek a job during mine operation, find other semi-skilled employment opportunities, or pursue their own business opportunities. As a result, it is expected that the residual impact on the boom-bust between construction and operation will decrease to **moderate negative**.

17.4.7.6 **Price Inflation and Economic Vulnerability**

The impact assessment determined that in the absence of Project mitigation the mine would have a critical negative impact related to local price inflation and potential economic vulnerability during construction, a major negative impact during operation, and a moderate to major negative impact during closure (see Section 17.3.7).

Project mitigation measures commit to enhancing Project understanding of potential inflation and changing economic status of communities through the monitoring of inflation at the local level and developing appropriate interventions that take into account the needs of identified vulnerable populations such as the elderly and women.

It is expected that with the implementation of these mitigation measures the Project will help control factors that may lead to price inflation and put in place procedures to support needs of the economically vulnerable. However, due to the difficulty in directly addressing inflation impacts, the anticipated residual impact on local price inflation and economic vulnerability is expected to initially reduce to **major negative** during construction, and then remain at **major negative** during operation and **moderate to major negative** during closure.

17.4.7.7 **Unmet Expectations**

The impact assessment determined that in the absence of Project mitigation the mine would have a major negative impact related to unmet expectations during construction, operation, and closure (see Section 17.3.8).

Project mitigation measures commit to ongoing consultation with local communities (including local authorities and traditional leadership, see Chapter 20: Social Structures and Community Life) and the clear communication of Project needs and schedule, including in local languages. The Employment Plan also establishes a transparent and fair recruitment procedure and processes by the Project and its contractors, and the creation of Local Employment Offices will create central and lasting locations for information sharing about the procedure and processes between the Project and local communities.

It is expected that with the implementation of these mitigation measures, the Project will help moderate the expectations of local communities, by keeping them informed of Project activities and addressing their concerns. As a result, it is expected that the residual impact on unmet expectations will reduce to **moderate negative** during construction, operation, and closure. Minimisation is expected to be a function of the
breadth (*ie* the population reached, including vulnerable peoples), depth (*eg* discussion of Project targets related to employment for local candidates, women, and youth; skill needs and training opportunities), and lasting continuity of communication (*ie* across all Project phases).

### 17.5 Summary of Findings

Potential impacts on employment and economic development by the mine during construction, operation, and closure, and associated mitigation measures, are summarised in Table 17.2.
Table 17.2 Summary of Potential Impacts on Employment and Economic Development

<table>
<thead>
<tr>
<th>Impact Description</th>
<th>Phase</th>
<th>Impact Assessment</th>
<th>SMF Themes and Programmes</th>
<th>Key Mitigation Measures</th>
<th>Residual Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment levels</td>
<td>Construction</td>
<td>Major positive</td>
<td>Employment Creation and Livelihoods</td>
<td>Establish targets for the employment and training of Guinean Nationals (with specific targets for women).</td>
<td>Major positive</td>
</tr>
<tr>
<td></td>
<td>Operation</td>
<td>Moderate to major positive</td>
<td>Employment and Work Readiness, SME Development, Local Procurement</td>
<td>Provide education and training opportunities as well as SME development support.</td>
<td>Moderate to major positive</td>
</tr>
<tr>
<td></td>
<td>Closure</td>
<td>Major negative</td>
<td></td>
<td>Develop and implement a Retrenchment Plan to better facilitate the transition of workers into new opportunities in the market.</td>
<td>Moderate negative</td>
</tr>
<tr>
<td>Work skills and experience</td>
<td>Construction</td>
<td>Moderate positive</td>
<td>Employment Creation and Livelihoods</td>
<td>Establish annual targets for employment and training of Guinean Nationals (with specific targets for women).</td>
<td>Major positive</td>
</tr>
<tr>
<td></td>
<td>Operation</td>
<td>Moderate positive</td>
<td>Employment and Work Readiness, SME Development, Local Procurement</td>
<td>Establish Work Readiness and Vocational Training Centres, scholarship programmes, and the GBLP.</td>
<td>Major positive</td>
</tr>
<tr>
<td></td>
<td>Closure</td>
<td>Minor positive</td>
<td></td>
<td>Train construction staff for operational positions.</td>
<td>Minor positive</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Offer a certificate of skills and experience to employees.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Provide training to staff and local businesses as appropriate to support employment transitions between Project phases.</td>
<td></td>
</tr>
</tbody>
</table>

*Simandou SEIA Volume I Mine*
<table>
<thead>
<tr>
<th>Impact Description</th>
<th>Phase</th>
<th>Impact Assessment</th>
<th>SMF Themes and Programmes</th>
<th>Key Mitigation Measures</th>
<th>Residual Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opportunities and capabilities within the local supply chain</td>
<td>Construction</td>
<td>Moderate positive</td>
<td>Employment Creation and Livelihoods</td>
<td>• Emphasise enhancement of potential SME employee skill sets and general business development support (eg vocational training and literacy programmes, GBLP emphasis on business plans and access to finance).</td>
<td>Major positive</td>
</tr>
<tr>
<td></td>
<td>Operation</td>
<td>Moderate positive</td>
<td>• Employment and Work Readiness</td>
<td>• Prepare potential suppliers to meet Project procurement requirements (eg GBLP trainings on HSE and quality standards).</td>
<td>Major positive</td>
</tr>
<tr>
<td></td>
<td>Closure</td>
<td>Moderate negative</td>
<td>• SME Development</td>
<td>• Develop management commitments to enhance local procurement through the identification of local suppliers (eg contacts database) and subcontractor requirements.</td>
<td>Minor negative</td>
</tr>
<tr>
<td>Economic development and diversification</td>
<td>Construction</td>
<td>Moderate positive</td>
<td>Employment Creation and Livelihoods</td>
<td>• Consider supplier impacts during transitions between Project phases.</td>
<td>Major positive</td>
</tr>
<tr>
<td>The Simandou Mine’s procurement activities, workforce expenditures, and increased</td>
<td>Operation</td>
<td>Moderate to major</td>
<td>Employment and Work Readiness</td>
<td>• Expand a broad range of individuals’ skill sets and experience (including women and youth) and support small business growth through measures such as vocational training, leadership and literacy programmes, and the GBLP, to encourage individuals’ increased employment and earning abilities as well as small business capabilities to meet changing consumer needs.</td>
<td>Major positive</td>
</tr>
<tr>
<td>incomes within the general population will result in economic growth and the</td>
<td>Closure</td>
<td>Major negative</td>
<td>SME Development</td>
<td></td>
<td>Minor to moderate negative</td>
</tr>
<tr>
<td>diversification of available goods and services. However, closure may be</td>
<td></td>
<td></td>
<td>Local Procurement</td>
<td></td>
<td></td>
</tr>
<tr>
<td>accompanied by decreased consumer demands.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact Description</td>
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<td>Key Mitigation Measures</td>
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<tr>
<td>-----------------------------------------------------------------------------------</td>
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<td>----------------------------------------------------------------</td>
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</tr>
</tbody>
</table>
| Boom-bust between construction and operations                                      | Construction | Major negative   | Employment Creation and Livelihoods • Employment and Work Readiness | • Provide training to construction phase employees so that they can be retained for operation phase employment where suitable opportunities are available.  
• Offer a certificate of employment experience and training to employees.  
• Develop a Retrenchment Plan that includes communication timetables, outplacement services, and skills training for staff as well as assessments and responses for businesses contributing to indirect and induced employment. | Moderate negative          |
|                                                                                  | Operation | Major negative    |                                                                 |                                                                                                           | Moderate negative          |
|                                                                                  | Closure   | Not applicable    |                                                                 |                                                                                                           | Not applicable             |
| Price inflation and economic vulnerability                                        | Construction | Critical negative | Employment Creation and Livelihoods • Agriculture and Food Security | • Monitor inflation at the local level in collaboration with the government.  
• Develop appropriate interventions that take into account the needs of identified vulnerable populations. | Major negative             |
|                                                                                  | Operation | Major negative    |                                                                 |                                                                                                           | Major negative             |
|                                                                                  | Closure   | Moderate to major negative |                                                                 |                                                                                                           | Moderate to major negative|
| Unmet expectations                                                                | Construction | Major negative   | Employment Creation and Livelihoods • Employment and Work Readiness | • Undertake ongoing consultation with local communities (including local authorities and traditional leadership) and clearly communicate Project needs and schedule (including in local languages).  
• Establish a transparent and fair recruitment procedure and processes by the Project and its contractors. | Moderate negative          |
<p>|                                                                                  | Operation | Major negative    |                                                                 |                                                                                                           | Moderate negative          |</p>
<table>
<thead>
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</tr>
</thead>
<tbody>
<tr>
<td>among communities</td>
<td>Closure</td>
<td>Major negative</td>
<td></td>
<td>• In the construction and operation phases, create Local Employment Offices for information-sharing about employment procedures and processes between the Project and local communities.</td>
<td>Moderate negative</td>
</tr>
<tr>
<td>that, if not met,</td>
<td></td>
<td></td>
<td></td>
<td>may result in tensions within communities, particularly between original residents and in-migrants</td>
<td></td>
</tr>
</tbody>
</table>