SECTION C: IMPACT ASSESSMENT

CHAPTER C7: ECONOMIC IMPACTS

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7. ECONOMIC IMPACT ASSESSMENT

7.1 INTRODUCTION

This Chapter of the ESIA considers the impact of the Oyu Tolgoi Project on the economy of Mongolia at the national, regional, and local level. The Chapter draws on the Oyu Tolgoi Socio-Economic Impact Assessment (SIA) and on the recent economic analysis conducted by Oyu Tolgoi and Rio Tinto Holdings Ltd.[1,2] Economic impacts considered include macro-economic impacts, changes to Mongolian Gross Domestic Product (GDP), inflation, economic growth, patterns of consumption and investment levels.[3]

As the Project construction phase is underway, it should be recognised that some of the associated economic impacts have already taken place, primarily through revenues into the state budget through tax and other statutory payments; in addition, consumer price inflation is occurring (although the impact of the Oyu Tolgoi Project on overall price inflation cannot be determined at this stage from Government statistics). Project-induced economic change has also included a significant increase in the range of goods available for purchase in Khanbogd *soum* since the Oyu Tolgoi Project became active.

In the course of its long operational lifecycle, Oyu Tolgoi is predicted to stimulate not only the national economy, but also to substantially contribute to the strengthening of the Omnogovi *aimag* and local *soum* economies within the Project Area of Influence. In addition to the direct earmarked regional and local investments by the Project, effective distribution of the Project funds by the government remains among the key factors that will determine a successful economic output.

7.2 SCOPE OF THE ASSESSMENT

7.2.1 Spatial Scope

The assessment covers the national economy, economic conditions on the regional level and within the Project Area of Influence, as well as general economic trends in the South Gobi area. The assessment recognises that significant economic impacts are likely to be realised at the national level in addition to Omnogovi *aimag* and its regional capital Dalanzadgad. Local economic benefits will arise in Khanbogd *soum* in which the Oyu Tolgoi Project is located and in the other *soums* within the *aimag*.

7.2.2 Temporal Scope

The temporal scope covers the life of the mine through construction, operation and closure, together with the post-mine legacy.

7.3 IMPACT ASSESSMENT

The following sections describe potential economic impacts of the Oyu Tolgoi Project, together with the proposed and existing mitigation measures. *Table 7.4* provides a detailed list of impacts and their significance.

7.3.1 Summary of Impacts

The key economic impacts associated with the Oyu Tolgoi Project are expected to be as follows:

- Impacts on the national economy through macro-economic effects, including growth of GDP (national and per capita), increased government revenues, and appreciation of the national currency exchange rate;
- Inflationary effects related to rising prices and the cost of living, caused by increased local expenditure, rise of disposable incomes, and improved access to saving and credit facilities; and

[1] Oyu Tolgoi Project Socio-Economic Impact Assessment, Final Report, September 2009. Centre for Policy Research, Population Training and Research Centre, School of Economic Studies, Mongolia National University. p60.

[2] The Development of the Oyu Tolgoi Copper Mine: An Assessment of the Macroeconomic Consequences for Mongolia, February 2011. School of Economic Studies, National University of Mongolia and BAEconomics Pty Ltd.

[3] Source: Business Dictionary, http://www.businessdictionary.com/

- Increased revenues for the state budget through taxation and other mandatory payments and duties.

7.3.2 Impacts on the National Economy of Mongolia

Description of the Impact

Oyu Tolgoi is the largest known undeveloped copper resource in the world. The Project will be the largest natural resource project in Mongolia by value and will result in the following impacts on the national economy:

- A major increase in Mongolia's GDP, enabling a steady flow of infrastructure investments over a continued period of time (transportation, community facilities and utilities, training etc.) which will also contribute to an increase of GDP per capita;
- Appreciation of the exchange rate which has a potential to adversely affect the country's volume of exports due to their rising price, and boost imports triggered by depreciation of their value; and
- Incremental growth of the mining industry and its increasing domination of the country's economy, thereby leading to deceleration or decline of the agricultural and manufacturing sectors. At the same time, attraction of international investments into the mining sector may also have an advantageous spill-over effect on other economic sectors through indirect employment and the demand for goods and services.

GDP Growth

The construction phase commenced in late 2009 following the conclusion of the Investment Agreement (IA) and an approved construction budget for 2010 of US$915 million. Latest World Bank data[4] for Mongolia provides a 2009 GDP figure of $4,202,494,302 based on a population of 2,670,966. Based on an average annual cashflow to Mongolia for the construction phase, the IDP10[5] forecasts suggest that the construction of the Oyu Tolgoi Project (before commercial production commences) will increase national **GDP by approximately 15%.**

Due to an accelerated construction schedule, the Project's actual expenditure has been intensified and workforce numbers are in excess of those used in the original financial model predictions (peaking at nearly 15,000). IDP10 financial projections were based on a 2013 start-up for operations, which is now being targeted for an earlier commencement in 2012. Based on the more conservative projections included in IDP10, the table below provides a summary of key economic and fiscal indicators for the Oyu Tolgoi construction phase activities.

Table 7.1: Construction Phase Economic and Fiscal Indicators, taken from IDP10

Indicator	Estimated Value (US$)
Total Government receipts during construction phase (to end of second quarter 2012)	649,294,000
Mongolian labour costs/salaries related to construction phase	160,987,000
Construction phase expenditure on Mongolian-produced goods and services	1,150,065,000
Total cashflows to Mongolia during construction phase	1,960,346,000

Note: all costs are set out in 2010 values and are not discounted; assumes that the Oyu Tolgoi construction phase will be completed around June 2012 with production commencing towards the end of 2012.

GDP increases are likely to continue through the construction phase supported by revenues from the Oyu Tolgoi Project.

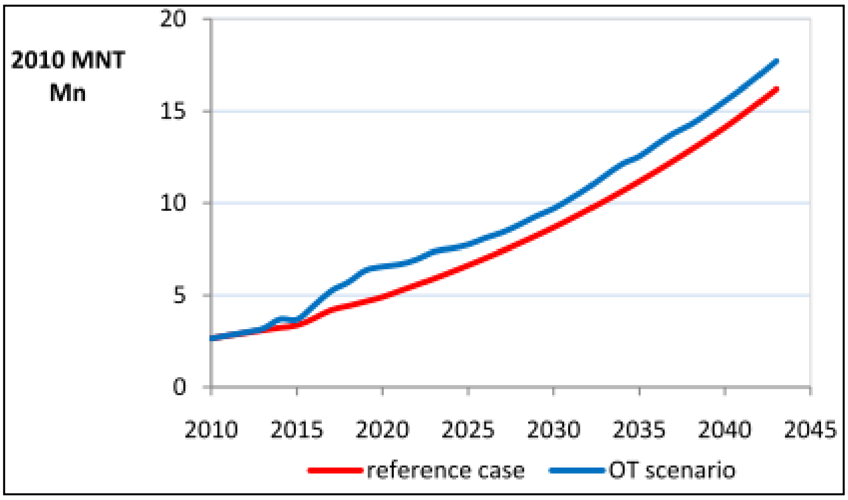
[4] http://data.worldbank.org/country/mongolia

[5] Integrated Development Plan 2010 (IDP 10) – an independent technical report prepared on the Oyu Tolgoi Project by AMEC Minproc Limited.

GDP per Capita Increase

According to the Oyu Tolgoi Economic Impact Assessment[6], the Project is forecast to increase the size of the Mongolian economy by over 35% by 2020. GDP per capita is projected to rise by MNT1.7 million (i.e. by over US$1000) by the year of 2020 – an increase equivalent to over 60% of today's GDP per capita.[7] By 2043, real GDP per capita is forecast to increase by MNT 4.67 million (by US$ 3,510), as shown in *Figure 7.1* below. The scale of the anticipated economic effects associated with the Oyu Tolgoi Project will therefore be felt nationwide.

Figure 7.1: Mongolian real GDP per person in the reference case[8] and the Oyu Tolgoi scenario, Mongolian Tugrug (MNT)



Source: International Monetary Fund (IMF)[9], Oyu Tolgoi Economic Impact Assessment

Increase in Government Revenues

A large proportion of the revenues paid by the Project will be channelled to the central government budget, in compliance with the General Taxation Law of Mongolia. The Project will account for over 30% of government revenue in the form of taxes and dividends in 2020.

In 2043, the Government of Mongolia's budget revenue is projected to reach MNT 10 trillion (circa $US 7.5 billion) under the wealth accumulation scenario and MNT 9.3 trillion (circa $US 7.0 billion) under the cash distribution scenario[10] in the real 2010 terms, as shown in *Figure 7.2* (see section *7.3.4 "Increased revenues to the state budget"* for further details).

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[6]The Development of the Oyu Tolgoi Copper Mine: An Assessment of the Macroeconomic Consequences for Mongolia, February 2011. School of Economic Studies, National University of Mongolia and BAEconomics Pty Ltd.

[7] In 2009, the country's GDP per capita was US$1,560. Source: *as above.*

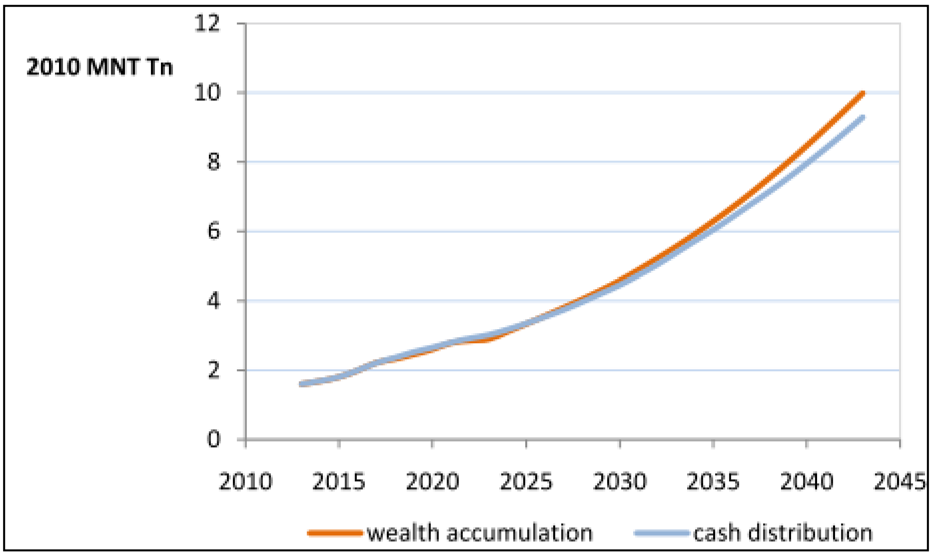
According to the World Bank data, this indicator rose up to US$ 2,207 in 2010. Source: http://data.worldbank.org/indicator/NY.GDP.PCAP.CD

[8] The *reference case* is a set of projections of population, labour force and economic growth for each region, as well as Mongolian sectoral composition of output, savings rates and mining production between 2004 and 2043. Assumptions were made about world commodity prices. The reference case is a *'business-as-usual'* scenario where the Mongolia economy progresses without contribution from Oyu Tolgoi. See further details in the Oyu Tolgoi Economic Impact Assessment (as cited above).

[9] IMF, World economic outlook database, World Economic and Financial Surveys (online). Source URL: http://www.imf.org/external/pubs/ft/weo/2009/02/weodata/index.aspx [accessed 14 Oct 2010], cited in the Oyu Tolgoi Economic Impact Assessment.

[10] *Wealth accumulation scenario* is a hypothetical policy scenario used for predictive modelling where all fiscal revenues from Oyu Tolgoi to the government are placed in a national savings fund. The interest from the fund is distributed to private households and government expenditure while the capital is preserved. *Cash distribution scenario* is a hypothetical scenario where all fiscal revenues paid by Oyu Tolgoi to the government are distributed to

Figure 7.2: Government of Mongolia Budget Revenues



Source: Oyu Tolgoi Economic Impact Assessment 2011

Appreciation of Exchange Rate

The Oyu Tolgoi economic impact study predicts that the Project will cause the real exchange rate to appreciate by circa 15% by 2020 relative to the reference case, i.e. compared with what it would have been without Oyu Tolgoi, although the actual extent of the appreciation will depend on the copper price and related government policies. At the same time, replacement of domestically-produced goods with imports, coupled with a risk of falling demand for national exports due to the rising exchange value are likely to have a disadvantageous impact on the competitiveness of trade/export exposed domestic industries – this effect, known as 'Dutch disease', is discussed further in *Chapter C13: Cumulative Impacts*.

Potential negative effects may result from a direct correlation between the appreciation of the national currency and the country's exports becoming more expensive, with a concomitant depreciation of the value of imports. Domestic industries that are Mongolia's primary exports outside of the mining sector also include such non-extractive industries as cashmere production and agriculture (livestock-related products). The increasing value of the Mongolian Tugrug (MNT) may lead to a greater vulnerability of these industries in terms of foreign trade, as the principal export sector – extraction of minerals – remains boosted by the rising commodity prices. It is estimated that an overall cumulative output from the country's major projects such as Oyu Tolgoi and Tavan Tolgoi could result in the value of the Mongolian Tugrug appreciating up to tenfold.[11] The reliance on the external commodity markets may further expose the country's economy to fluctuations in the resource prices. Lower long-term copper prices are projected to result in a relatively smaller appreciation of the MNT.

The dynamics of the currency appreciation is shown in *Table* 7.2.

Table 7.2: Mongolian Tugrug Exchange Rate (MNT/US$, End of Period)

2006	2007	2008	2009	2010*	2011 (as of 02 Nov)*
1,165.0	1,170.0	1,267.5	1,443.6	1,257.18	1,300.32

*Source: For 2006-2009 – World Bank East Asia and Pacific Economic Update October 2010, vol. 2. Country Pages and Key Indicators: Mongolia. * Source: Data of the Central Bank of Mongolia*[12]

private households who spend it on private consumption or save it. See further details in the Oyu Tolgoi Economic Impact Assessment.

[11] *Mongolia to Raise $500 Million in First Dollar Bond Sale*. By Yu. Humber and K. Nicholas - Mar 3, 2011. Source: http://www.bloomberg.com/news/2011-03-02/mongolia-plans-to-raise-500-million-in-first-dollar-bond-sale.html

[12] http://www.mongolbank.mn/

Appreciation of the exchange rate due to the increased volume of foreign direct investments and the country's revenue predominantly sourced from commodity-based exports may therefore influence the sectoral composition of the national economic output. In this case, the growth of the mining industry, which is forecast to more than double by 2020 as a result of the Oyu Tolgoi development[13], may be accompanied by the contraction and higher labour costs in the non-mining sectors, particularly in agriculture and manufacturing.

To avoid the development of a 'Dutch disease' scenario, Mongolia's Government is aiming towards the balanced economic growth by stimulating and promoting other key non-mining industries, including food production, metal processing, tourism, etc. Measures encouraged by the Government also include providing support to the country's cashmere production sector through assisting Mongolian farmers and herders with the marketing of their produce abroad while focusing on quality and brand rather than solely on the competitive price.[14]

Mitigation/Enhancement Measures

Economic Provisions of the Oyu Tolgoi Investment Agreement (IA)

In 2009, an *Investment Agreement* was signed between the Government of Mongolia, Ivanhoe Mines Mongolia Inc. and Rio Tinto International Holdings Ltd covering the construction and operation of a copper-gold mine at Oyu Tolgoi in south-eastern Mongolia. The Oyu Tolgoi Investment Agreement (IA) is the primary mechanism for ensuring that the Project's economic contribution is appropriately implemented and regulated, and that all resulting benefits are adequately captured and distributed. Conditions related to the tax regime and financial environment are also mapped out in the Agreement. **The IA is a critical document for the Oyu Tolgoi Project and is applicable to all Oyu Tolgoi operations.**

In accordance with the requirements outlined in the 2006 Minerals Law of Mongolia, upon execution of the IA and the fulfilment of all conditions precedent the Government of Mongolia has become a 34% shareholder in Oyu Tolgoi. Upon a successful renewal of the IA after the initial 30-year term, the Mongolian Government also has the option to increase its shareholding to 50%, under terms to be agreed at the time.

The Investment Agreement laid the regulatory foundation for maintaining a stable economic and social base of the Project, thereby enabling continuous input into the national, regional and local welfare. To date, the IA has been supplemented by a number of other programmes and schemes to mitigate negative impacts and enhance beneficial effects. Such programmes and initiatives are described as part of the impact mitigation sections in this Chapter.

Utilisation and Transparency of Revenue Disbursement

Whilst the generation of large cash flows to the Mongolian economy is a major positive impact, the extent to which Mongolian citizens will benefit from the Oyu Tolgoi development will depend on the capability of the Government to deliver positive change. Crucial to this will be the accountability and transparency of the Government in controlling and reporting on revenues and disbursement, as well as the capacity at all governmental levels to appropriately plan for, and judiciously implement the utilisation of the received funds.

Oyu Tolgoi recognises that effective governance and transparency are essential to avoiding the "resource curse" that can afflict emerging economies which receive windfall benefits from major increases in revenues from the extraction of natural resources (and also the subsequent withdrawal of this revenue when project operations cease).

The Government of Mongolia committed to implementing the provisions of the *Extractive Industries Transparency Initiative (EITI)* in 2005 and on 19 October 2010 Mongolia was designated as "EITI Compliant". EITI reports for Mongolia are available at the following website: http://eitimongolia.mn/.

[13] See further details in the Oyu Tolgoi Economic Impact Assessment.

[14] *Mongolia Seeks Balanced Growth to Avoid `Dutch Disease' From Mining Boom*. By Yu. Humber - Mar 8, 2011. Source: http://www.bloomberg.com/news/2011-03-08/mongolia-says-shifting-focus-to-balanced-growth-from-mining.html

Oyu Tolgoi will continue to support the Government of Mongolia in its transparency assurance activities, such as EITI and the Transparency and Accountability Initiative[15], by disclosing and reporting tax and other payments made to government departments. The Project will also endorse coordination with Non-Government Organisations (NGOs) and international financial institutions, including the International Monetary Fund and the World Bank, to promote regional and local development and to strengthen governance capacity, (as per *Clauses 4.4.1, 4.4.6, 4.5 and 4.13* of the Oyu Tolgoi Investment Agreement listed in *Table 7.3 "Summary of Economic Impacts"*).

At the regional and *soum* level, access to the fiscal benefits of the Project will be enhanced through the preference given to local employment and procurement as expressed through the Oyu Tolgoi *South Gobi Supplier Development Policy*, the *Local Supplier Development Programme* and the *Local Business and Economic Development Programme*. Details of these programmes are provided in *Chapter C9: Employment Impact Assessment and D17: Labour Management Plan.* The Project will also undertake support to the local authorities to strengthen their revenue management capacity (see section *7.4.3 "Increased Revenues to the State Budget"* for further details).

Policy Recommendations based on the results of the Oyu Tolgoi Economic Impact Assessment

The Economic Impact Assessment that has been performed for the Oyu Tolgoi Project acknowledged potential risks associated with the appreciation of the real exchange rate, including with respect to reduced competitiveness of the non-mining tradable sectors. To mitigate these effects, the study proposed that the country should implement a number of policy measures, primarily the following:

- Establishment of a national wealth accumulation fund (as opposed to a policy of distributing revenues from the Project directly to private households, i.e. the cash distribution scenario) to aggregate the fiscal revenues from Oyu Tolgoi and to help ease consequences of the structural adjustment through a relatively lower appreciation of the exchange rate and more manageable real wage increases; and
- Management of the exchange rate, including its flexibility to help the economy absorb consequences of trade shocks that may potentially result from the country's increased reliance on commodity exports.

Impact Significance.

Macro-economic impacts arising from the Oyu Tolgoi Project's construction and operations phases will be of **long-term** duration (≥27 years life of mine). The extent of predicted impacts will be **widespread**, with **certain** likelihood of occurrence. The extent to which the Mongolian people will benefit from Project revenues will depend on the ability of the Government of Mongolia to control, manage and disburse revenues in a sound and fair manner.

Negative consequences are likely to result from appreciation of the Mongolian currency and its exchange rate associated with the commodity boom and mining sector dominating the country's economy. Without further diversification and promotion of other non-extractive industries by the Government, Mongolia's economy faces the risk of remaining excessively dependent on mining revenues and vulnerable to instabilities on commodity markets. Implementation of effective economic, fiscal and monetary policies by the Government is key to preventing manifestation of the "Dutch disease" effects.

The residual significance of the impact, assuming the effective implementation of the measures described above, is considered to be **positive.**

[15] T/A Initiative is a donor collaborative framework to expand the impact and scale of transparency and accountability interventions. It brings together a wide range of organisations and projects aimed at promoting greater openness on the part of governments, companies and other institutions so that the public can hold them to account. The collaboration is led by a diverse group of eight leading funders in the field that includes private foundations, a leading bilateral donor and NGOs. The Initiative's recent publications include *"Natural Resource Governance. New Frontiers in Transparency and Accountability"* (By S. Darby, 2010). Source: www.transparency-initiative.org

7.3.3 Price Inflation and Rising Cost of Living

Description of the Impact

The Mongolian economy as a whole, as described in *Chapter B1: Introduction*, was prone to inflationary increases during the post-Socialist period and following the global financial crisis in 2008-2009, when the consumer price based inflation rate[16] reportedly exceeded 20%.[17] The resurgence of the country's economy since 2009 has led to a gradual decrease in inflation which was reported at around 14% (end of year change) in 2010, with the world's average inflation (end of year change value) being 5.5%[18] (see also *Figure 7.3* below).

Figure 7.3: Mongolia's Inflation Dynamics, 2008-2011

Source: Trading Economics[19]

In early 2011, the IMF reported that, against the backdrop of a strong economic recovery in Mongolia inflation was already "too high".[20]

Moreover, in combination with around one-third of Mongolians living below the poverty line and the impacts of the 2008-2009 economic crisis and the 2010 severe winter not yet fully eliminated, the country's population remains particularly vulnerable to the economic stress associated with rising prices and inflation.

The IMF[21] further predicts that the large increase in Mongolia's budget spending planned for 2011 may be detrimental to the country's economy, particularly through higher inflation and faster real exchange rate appreciation (see also "*Appreciation of exchange rate"* in the preceding impact section). This, in turn, may

[16] Inflation rate refers to a general rise in prices measured against a standard level of purchasing power. One of the common measures of inflation is the Consumer Price Index (CPI) which reflects changes in prices of a basket of consumer goods and services.

[17] Source URL: http://www.indexmundi.com/mongolia/inflation_rate_(consumer_prices).html

[18] Economy Watch. Mongolia Inflation (End of Year Change %) Statistics. Source URL: http://www.economywatch.com/economic-statistics/Mongolia/Inflation_End_of_Year_Change_Percentage

[19] http://www.tradingeconomics.com/mongolia/inflation-cpi

[20] The International Monetary Fund. Mongolia— Preliminary Conclusions of the 2011 Article IV Mission. February 17, 2011. Source URL: http://www.imf.org/external/np/ms/2011/021711.htm

[21] *Ibid.*

lead to a decrease in real household purchasing power. High inflation, especially when manifested in staple foodstuffs, affects the poor population the most as they are unlikely to have resilience against the effects on their limited incomes.

Within Khanbogd *soum*, local prices and the cost of living in general can be expected to rise early in the Oyu Tolgoi construction phase. No data are yet available at a *soum* level to demonstrate that local consumer price inflation has started to occur, although consumer price inflation is recorded across all regions of Mongolia.[22] The main causes of the appreciated cost of living and inflated prices are expected to be as follows:

- Increase in local expenditure related to Oyu Tolgoi activities and other development projects in the area;
- Increase in the spending ability of local population, facilitated by the shift from subsistence to waged labour; coupled with
- Enhanced access by population to savings and credit.

Increases in local expenditure by Oyu Tolgoi and other projects implemented in the area will be triggered by spending on various goods and services available locally and in the region including:

- Supplies related to construction and operation of the mine and ancillary facilities;
- Transportation, freight and storage services;
- Food supplies, catering, and cleaning services;
- Building and auxiliary materials and accessories;
- Maintenance services;
- Accommodation, laundry and clothing suppliers;
- Retail services;
- Provision of fuel;
- Private health care; and
- Recreation and entertainment.

Until local businesses have matured enough to be able to accommodate the growing demand adequately, the competition for insufficient resources and services from the major-scale projects will drive local prices upwards. This trend will also be exacerbated by a rising demand for goods and service provision placed by the growing population as a result of the predicted population influx into the *soum*. In addition, the underdeveloped local markets are likely to respond with inflationary increases to the enlarged proportion of the population with considerable disposable incomes – mainly employees of the mining sector and expatriate personnel. This effect will result from the presence of a greater number of people whose higher purchasing power enables them to absorb rising prices for housing, food products, eating out, transportation services, medical care, leisure, and other items of expenditure.

Upward prices will in turn affect the overall cost of living i.e. consumer prices, rent, groceries, transportation and utilities and are directly correlated with inflation. The cost of living is anticipated to rise locally and at a wider regional level due to the presence of Oyu Tolgoi and other major developments that are already underway or are planned (see also *Chapter C13: Cumulative Impacts*).

Effects of the rising living costs and general price increases will be felt differentially within the *soum* community. As of June 2011, a total of 73 individuals from 15 families were identified by the Labour & Social Welfare Office as vulnerable in Khanbogd *soum*.[23] The capacity to absorb the inflationary effects will also pose a challenge for people whose incomes are fixed (such as public sector employees) or are not regularly adjusted to offset the changing economic conditions. Prices are expected to stabilise in the operations phase given the decrease in workforce demand compared to the construction phase, gradual outflow of some economic migrants and improved performance of local businesses.

[22] Mongolia National Consumer Price Index, June 2011.

[23] Khanbogd *Soum* Social and Welfare Office Statistics, 2011, as reported by CRSD.

Mitigation/Enhancement Measures

Local communities in the Project Area of Influence, and particularly the vulnerable and poorer groups of the population, will be the most exposed to the inflationary consequences of the Project. The principal measures to cushion the negative effects of price rises, and to protect the most vulnerable people within the *soum* will be the following:

- Incremental increase in the *local content of Project employment*, thereby enabling an increasingly greater part of the population to benefit from steady incomes and strengthening their capacity to cope with inflation and the rising cost of living (as per Clauses 8.5.1 and 8.5.2 of the Investment Agreement; during construction at least 60% of the Project workforce and not less than 75% for mining and mining-related work will be Mongolian citizens);
- Provision of direct *support to vulnerable and poor families* through targeted community investment; Oyu Tolgoi has a direct support programme for the support of vulnerable groups within the *soum*;
- Provision of *skills training and educational programmes* to enhance the employability of local communities and to reduce their dependence on the Project in the long-term;
- Stimulation of *local business development* through the *South Gobi Supplier Development Policy* and *Local Business and Economic Development (LBED) Programme*; and
- Implementation of income enhancement programmes to expand the adaptability of local communities to economic variations.

Oyu Tolgoi will also monitor the Consumer Price Index (CPI) and staple prices in Khanbogd. This measure will allow the price trends and the cost of living to be tracked, although strictly isolating the Project-induced inflation from inflationary effects due to any other causes may pose a challenge. The CPI is a commonly used indicator that enables the average price variations to be measured over a time period and therefore helps detect upward trends in the cost of typical goods and services such as basic foodstuffs, housing expenditure and utilities, fuel, clothing, transportation, communications, medical care, etc. The CPI does not necessarily allow direct causes of the inflationary trends to be ascertained or singled out, although it does allow a comparison between the prices within different timescales and the observation of price dynamics in a locality.

Since the inflation in general leads to a weakened purchasing power of the population and, as a result, their reduced ability to avail of a range of goods and services due to a growing gap between the income levels and the real cost of living, one of the primary mitigation measures employed by the Oyu Tolgoi Project will be the ongoing support for the local hiring and employment through the generation of jobs in the Project area *soums* and the Omnogovi *aimag*. The availability of jobs for the local population (both in terms of direct and indirect employment) helps secure a stable source of income and therefore contributes to protecting livelihoods in case of economic fluctuations. To assist local workers in coping with the inflation, the Project will also be implementing annual salary reviews for the Project workforce to ensure that the wages are adjusted against the inflation factor, allow for the rising cost of living, and reflect industry/sector salary benchmarks.

Further details on the Project's mitigation measures related to preferential local recruitment and employment, labour remuneration, training of the mining workforce, local worker training as well as retrenchment and demobilisation are provided in *Chapter D17: Labour Management Plan.* Types of assistance available for herders and vulnerable persons are described in *Chapter D15: Resettlement Action Plan.* The measures stimulating indirect employment and local business opportunities, including the National Supplier Development Policy, South Gobi Supplier Development Policy, Local Supplier Development Programme and the Local Economic and Business Development Programme are discussed in more detail in *Chapter C9: Employment.* Specific measures to manage and mitigate economic growth and development in Khanbogd *soum* and Omnogovi *aimag* are set out in *Chapter D16: Influx Management Plan*.

Impact Significance

If unmitigated, inflationary impacts associated with price rises and the increased cost of living are expected to be **long-term**, i.e. are predicted to take place during the operational life of the Project and based on an assumption that the mine closure will result in deflationary effects. The extent of the inflationary impacts is anticipated to be **widespread** and is **likely** to occur. This impact will be particularly significant for vulnerable or poorer households even providing the application of the mitigation measures described above. The residual significance of the impact (post-mitigation) is expected to be **moderate adverse**.

7.3.4 Increased Revenues to the State Budget

Description of the Impact

Extractive industries are a major source of budget revenues in the form of taxes, fees and other formal payments levied by law. During a three-year period from its enactment in 2006 to 2009, the 68% Windfall Profits Tax (WPT)[24] on gold and copper reportedly provided 968 billion MNT to the Mongolia Development fund which allowed substantial resources to be used for social and infrastructure development.[25] The Windfall Tax was subsequently rescinded in January 2011 to establish a more favorable climate for foreign investment.

To compensate for the abolished WPT, the Government has increased royalty payments for the minerals sector. On November 25, 2010, the State Great *Khural* (Mongolian Parliament) adopted an amendment to the country's Minerals Law which introduced a new surtax royalty applicable from January 2011. The rates of the surtax royalty vary depending on the type of minerals and their market prices, and are significantly higher for copper than for other minerals; for copper, the surtax royalty rates range between 22% and 30% for ore, between 11% and 15% for concentrates, and between 1% and 5% for final products. No surtax royalty is charged if the copper price falls below US$5,000.00 per tonne.[26]

The table below illustrates the impact of the new two-tier royalty regime in the context of a copper project where the price for copper is equivalent to US$9,000.00 per tonne.

Table 7.3: Royalty Payments Case Study of a Copper Project with a Market Price of 9,000 US$/tonne

	Commodity	News Royalty Rate	Royalties Under New Regime (US$/tonne)
1	Copper ore	35% (standard rate of 5% plus 30% surtax)	US$3,150.00
2	Copper concentrate	20% (standard rate of 5% plus 15% surtax)	US$1,800.00
3	Copper products	10% (standard rate of 5% plus 5% surtax)	US$900.00

Source: Hogan Lovells[27]

Mongolia's Finance Ministry estimates that the graduated royalty will earn the state budget 95 billion MNT a year.[28] In 2008, tax revenues from mining accounted for 43% of government revenue and 15% of GDP.

Being a developer of Mongolia's major copper and gold deposit, Oyu Tolgoi will be subject to royalty payments and a range of other mandatory taxes. Main revenue payments made by the Project to the national budget include:

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[24] The WPT was designed to allow the state to benefit from historically high copper and gold prices. The windfall profits law assessed a 68% tax on copper sold above $2,600 per tonne, and the gold price above $US500 per ounce. Following drop in world prices in mid-2008, the WPT threshold for gold was raised from US$500 to US$850 per ounce. The proceeds from the Windfall Tax were deposited into a special fund which was regulated under an applicable law.

[25] "Windfall profit tax generated nearly 1 trillion MNT". Posted at Business Mongolia on August 21, 2009. Source URL: http://www.business-mongolia.com/mongolia/2009/08/21/windfall-profit-tax-generated-nearly-1-trillion-mnt/

[26] Mongolia Alert - New Mineral Royalty Regime: A Two-Tier Royalty Rate. Hogan Lovells. January 2011 http://ehoganlovells.com/ve/61VLt636179wwO0/VT=1

[27] *Ibid.*

[28] Graduated Royalty Rates To Replace Windfall Profits Tax. Source: The Mongolian Mining Journal, April 2010. Posted on: The Business Council of Mongolia

http://www.bcmongolia.org/index.php?option=com_content&view=article&id=394:graduated-royalty-rates-to-replace-windfall-profits-tax&catid=44:mongolia-business-news&Itemid=103

- Corporate income tax;
- Mineral royalties, administrative fees, lease and rent payments;
- Value added tax (VAT) on goods and services sold on the territory of Mongolia;
- Customs duty and excise tax;
- Gasoline, diesel fuel tax;
- Payment for the use of mineral resources at 5% on the value of the sales;
- Payment for the use of water resources and the leasing of land;
- Licence fees for mineral exploration and mining licences; and
- Immovable property tax.

Oyu Tolgoi's tax reports show that between 2000 and 2010, Oyu Tolgoi paid a total of 62.8 billion MNT to the Mongolian Government budget, including state, *aimag*, and *soum* budgets.

Revenue to regional *(aimag*) and local authorities during the construction and operations phases will also come from the payments of various fees, duties and taxes. The main increases in revenue will occur during the operational phase when royalties will be paid to the local authorities on the sale value of all minerals extracted and sold.[29] Beginning in early 2013, and once commercial production has commenced, Oyu Tolgoi will start to pay royalty taxes to the Mongolian government, and the royalty will on average constitute about 70-80% of Oyu Tolgoi's tax payments. As prescribed in the law, 70% of all royalty payments remain in the central state budget, while 20% and 10% of the royalty payments should be transferred to the host *aimag* and *soum* budgets, respectively.

The tax revenues paid locally by the Oyu Tolgoi Project will be channelled directly to the budget of the Khanbogd *soum* with a certain proportion being transmitted to the *aimag* government. According to the Oyu Tolgoi Project Socio-Economic Impact Assessment (September 2009), the following revenues are due to be paid to the local budget:

- Personal income tax;
- Land use payment;
- Immovable property tax;
- Stamp fee;
- Water use fee; and
- Motor vehicle tax.

The actual spending data for Oyu Tolgoi show that between early 2000 and 2010, almost 60% of Oyu Tolgoi's direct total spending[30] of circa US$ 23.9 million in the region was accounted for by tax payments to the local and *aimag* governments. Between 2001 and 2010, Oyu Tolgoi's total payments to local governments of Khanbogd, Dalanzadgad, and other *soums* in Omnogovi *aimag* amounted to circa US$14 million. About 80% or US$11 million of these tax payments were minerals exploration and license fees, and the total amount paid to Mongolian Government reached US$ 52 million. (see *Figure 7.4*)

In 2010, Oyu Tolgoi paid about US$ 1.9 million (about MNT 3.3 billion) to Omnogovi *aimag*, including 70% through personal income taxes, and 24% in the form of water and land fees, common minerals, and road usage fees, paid to the Khanbogd *soum* government. Of MNT 3.3 billion, about MNT 1.3 billion was paid as tax and non-tax revenues to the Khanbogd *soum* budget. Oyu Tolgoi's payments to Khanbogd

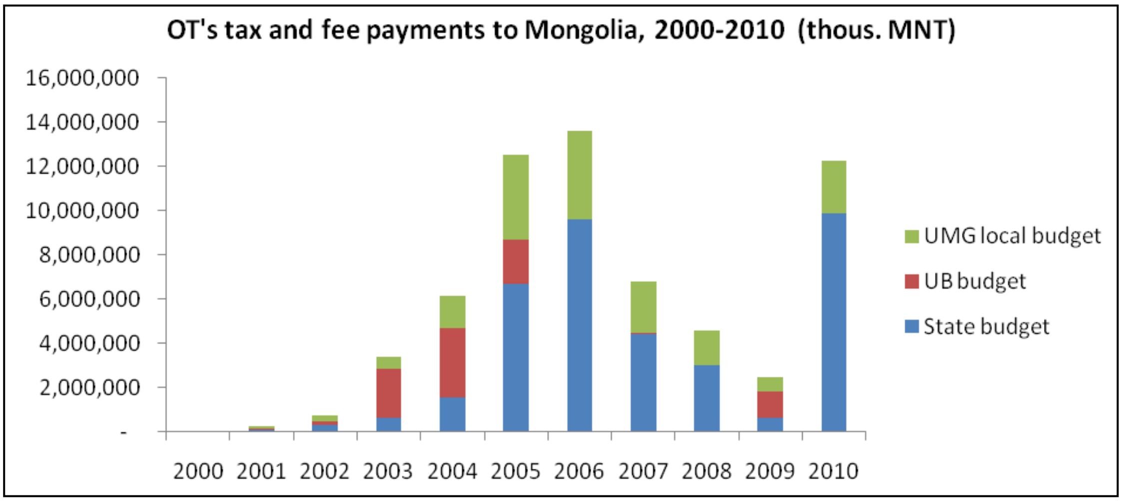
[29] The standard royalty regime as per the Minerals Law stipulates that the holder of a mining license pay a standard royalty calculated on the basis of the total sales value of the minerals extracted. The current standard royalty rates are 2.5% for coal sold in Mongolia as well as for commonly occurring minerals sold in Mongolia, and 5.0 % for all other minerals (i.e. coal sold abroad, commonly occurring minerals sold abroad and minerals that are not commonly occurring, either sold in Mongolia or abroad). Source: Hogan Lovells, Mongolia Alert - New Mineral Royalty Regime: A Two-Tier Royalty Rate (January 2011). http://ehoganlovells.com/ve/61VLt636179wwO0/VT=1

[30] Including spending on infrastructure, local procurement, training and capacity building, employment, taxes and donations.

soum also include foreign workforce fees of MNT 631.8 million (52%), land fees of MNT 333.5 million (28%), common minerals usage fee of MNT 226 million (19%), and MNT 11.9 million for water fees.

Reportedly, Omnogovi *aimag* transfers a substantial amount of its tax revenues to the state budget of the central government, which then re-distributes the funds to other *aimags*.

Figure 7.4: Oyu Tolgoi Total Tax Payments, 2000-2010



Source: Oyu Tolgoi, 2011. (UMG – Omnogovi, UB – Ulaanbaatar)

**Note: Exploration and licensing fees constitute the largest share of the tax revenues paid to Mongolia up to 2008; the local tax revenue is assumed to constitute the share of exploration and licence fees (assuming the central government distributed the proportional shares to the local budget).*

In 2009, Oyu Tolgoi's local tax payments amounted to US$ 513,000, which was about 5% of the *aimag* budget. In 2010, Oyu Tolgoi's local payments increased four times, reached US$2.3 million; and this was 27% of the *aimag* budget.

On the basis that Omnogovi *aimag* is eligible for 30% of royalties that Oyu Tolgoi pays to the Mongolian government, between 2013 and 2023 the *aimag* is expected to receive US$ 479 million and the central government will receive US$ 1.1 billion in royalties. On average, Oyu Tolgoi's tax payments to Omnogovi *aimag* will constitute around 15% of total tax payments to the Mongolian Government during this period. Provided that royalty taxes are duly transferred to the *aimag* and *soum* governments within the Project Area of Influence, the royalty tax revenues would make a significant impact on the local budget revenue.

In principle, and when managed and regulated appropriately, expansion of the tax base and significantly increased revenues for the local (Khanbogd *soum*) and regional (Omnogovi *aimag*) authorities will help address local development needs through improved budgeting and will provide opportunities for increased public expenditure and improvements to local public services.

Mitigation/Enhancement Measures

The process of taxation has the greatest effect at a regional and local level when taxation revenues are consistently and transparently channelled to finance the targeted regional and local development for which the monies have been originally designated.

To ensure that profits and revenues to the state budget generated by the Oyu Tolgoi Project are translated into *real* benefits that are perceptible to the communities, effective budgeting and prudent distribution of the accumulated funds by the authorities remain crucial. At present, the capacity of local authorities to manage significantly larger budgets is limited due to the lack of personnel, insufficient previous exposure to such sizeable streams of funds, and the need for practical training.

Oyu Tolgoi, in the fulfilment of its obligations under the IA, will work with the Government of Mongolia to ensure high standards of transparency for the local authorities, and will provide training in budget management and reporting, project management, etc. Part of this training is intended to improve knowledge of good governance and the transparent distribution of capital.

In terms of transparency, implementation of Mongolia's commitments under the EITI, including the Government reporting of payments mandated by the law (revenues, royalties, taxes, fees) made by the

Project to the state budget, will be a primary tool to maintain accountability. EITI also requires regular publication of all material payments by companies to governments along with all material revenues received by governments to a wide audience in a publicly accessible, comprehensive and comprehensible manner. This requirement serves as an extra assurance for the openness of revenue streams and associated profits.[31]

In terms of capacity building, Oyu Tolgoi is establishing a *Local Regional Planning and Infrastructure (LRPI)* unit to coordinate with the Southern Gobi Regional Development Council (SGRDC) that is being established by the Government. A key objective of the LRPI initiative will be to ensure balanced and sustainable regional planning and associated public infrastructure within the Project Area. The LRPI programme is discussed in detail in *Chapter C8: Population and Influx.* Through participation in the SGRDC activities and other local cooperation initiatives, Oyu Tolgoi will work closely with the local authorities in the following areas:

- Planning improvements to public services;
- Ensuring good communication with the local communities to manage expectations and improve transparency; and
- Increasing the capacity of the local authorities so that the expected increase in investments in public services during the operational phase can be properly managed and used to sustain local communities once the Project reaches the end of its life.

Impact Significance

Impacts related to increased revenues into the state budget are expected to be **medium-term**, of widespread extent and **certain** probability of occurrence. The overall significance of the impact will be **positive**. Implementation of the mitigation measures outlined above will be essential to ensure that this positive effect is sustained over the long-term.

7.4 SUMMARY OF RESIDUAL IMPACTS

Significant residual socio-economic impacts after the implementation of mitigation measures by Oyu Tolgoi will include:

- Macroeconomic effects, including positive economic benefits from the Project at the national, regional and local levels as well as likely adverse consequences of the national currency appreciation, such as a potential for compromised competitiveness of the non-mining sectors oriented towards foreign trade and export; and
- Adverse effects resulting from the price inflation and rising cost of living.

The economic benefits of the Project will be of national significance to Mongolia. The challenge, both for the Government of Mongolia and Oyu Tolgoi is to ensure that those benefits are equitably shared and are used to ensure sustainable benefits for the Mongolian economy and population.

At the closure of the Project, there are likely to be significant adverse social and economic impacts. Given the very long life of the Project (for example, current planning is based on a 27 year mine-life based on current commercially defined resources, whereas economic studies have been undertaken based on a mine-life of at least 59 years), it is impossible at this stage to forecast with any accuracy the prevailing socio-economic, commercial and political circumstances at closure. This is an issue which will be kept under review by Oyu Tolgoi to ensure that its plans for closure are applicable and reflect circumstances at that time. It can be anticipated that the Project economic contribution will allow the regional and local economies to be considerably strengthened and hence to become capable of withstanding potential negative effects related to the mine closure (such as discontinuation of budget revenues and other types of economic support). It is also expected that increased and strengthened capacity of the local authorities will be used to sustain local communities once the Project reaches the end of its life.

Table 7.4: below summarises potential economic impacts of the Oyu Tolgoi Project.

[31] The EITI Criteria. Source: eiti.org/eiti/principles

Table 7.4: Summary of Economic Impacts

Impact	(1) Receptor	(2) Phase	(3) Impact Categorisation	(4) Potential Significance	Design, Enhancement or Mitigation Measures	Management Plans, Policies and Procedures	Residual Significance
Macro-Economic Impacts	Mongolian Government, Mongolian residents and business entities	Construction Operations Mine Closure	**Extent:** Widespread **Duration:** Long-term **Likelihood**: Certain	Positive	▪ Compliance with General Taxation Law of Mongolia and the royalty payment regulations. ▪ Support to Government of Mongolia in implementation of EITI: Extractive Industries Transparency Initiative[32]. ▪ EITI reporting.	EITI reporting will be undertaken by the Government Measures stipulated in terms of the Oyu Tolgoi Investment Agreement (IA): ▪ Support to Southern Gobi Regional Development Council established by the Government in the disbursement of funds. ▪ 4.4.1. Support to local and regional development and encouraging transparent and responsible governance. ▪ 4.4.6. Support to capacity building for local governments and civil society. ▪ 4.5. Support socio-economic development policies and activities undertaken by South Gobi local administration, and develop partnerships to ensure that sustainable benefits from the Project reach Mongolian people. ▪ 4.13. Build and maintain productive working relationships, based on principles of transparency, accountability, accuracy, trust, respect and mutual interests, with NGOs, civic groups, civil councils and other stakeholders.	Positive
Appreciation of National Currency (Exchange Rate)	Mongolian Government, Mongolian	Construction Operations	**Extent:** Widespread	Moderate Adverse	▪ Cumulative impact of Oyu Tolgoi on the country's GDP and GNP per capita is projected to be highly positive, thereby	Provision of policy recommendations as part of the Oyu Tolgoi Economic Impact Assessment[33]:	Minor Adverse

[32] The Extractive Industries Transparency Initiative (EITI) sets a global standard for transparency and improved governance in resource-rich countries through the verification and full publication of company payments and government revenues in oil, gas and mining. Source: http://eiti.org/eiti

Impact	(1) Receptor	(2) Phase	(3) Impact Categorisation	(4) Potential Significance	Design, Enhancement or Mitigation Measures	Management Plans, Policies and Procedures	Residual Significance
	residents and business entities		**Duration:** Medium-term **Likelihood**: Likely		enabling an offset against the increased value of the currency.	▪ Increasing workforce participation rate and encouraging Mongolian nationals to return from abroad. ▪ Accruing fiscal revenues from Oyu Tolgoi in a wealth accumulation (savings) fund to mitigate the effects of structural adjustment on the Mongolian economy and to help protect trade exposed sectors through an increased domestic demand. ▪ Flexible exchange rate to mitigate the country's increased reliance on commodity exports.	
Inflation and Rising Cost of Living	Mongolian, *Aimag* and *Soum* residents Potentially vulnerable people including: *those below the poverty line, people who are in need of support and assistance of social welfare cover, old people in need of regular care, children in harsh conditions, disabled citizens, citizens (ages 18-24), orphan children under the age of 18, mothers who have many children and single*	Construction Operations	**Extent**: Widespread **Duration**: Long-term **Likelihood**: Likely	Major Adverse	▪ Targeted support to poorer/vulnerable families identified as vulnerable by the Labour and Social Welfare Office of Khanbogd *soum* through community investment programmes. ▪ Strengthening incomes through achieving and maintaining the required level of local training and employment as required under Section 4.11 of the Investment Agreement. ▪ Local procurement of goods and services under the Oyu Tolgoi South Gobi Supplier Development Policy. ▪ Local business development and skills training through the Oyu Tolgoi LBED Programme. ▪ Implementation of income enhancement programmes (as set out in the Resettlement Action Plan). ▪ Consumer price monitoring.	Measures stipulated in terms of the Oyu Tolgoi Investment Agreement (IA): ▪ 4.11. Priority training, recruiting and employing citizens of local communities in South Gobi region, with preference to Omnogovi *aimag*. ▪ 8.4. Not less than 90% of the Investor's employees will be citizens of Mongolia. ▪ 8.5.1. During Construction and Expansion Periods, not less than 60% of employees will be Mongolian citizens. ▪ Oyu Tolgoi Training Strategy. ▪ Oyu Tolgoi South Gobi Supplier Development Policy ▪ Oyu Tolgoi National Supplier Development Policy. ▪ Local Business and Economic Development (LBED) Programme.	Moderate Adverse

[33] The Development of the Oyu Tolgoi Copper Mine: An Assessment of the Macroeconomic Consequences for Mongolia, February 2011. School of Economic Studies, National University of Mongolia and BAEconomics Pty Ltd.

Impact	(1) Receptor	(2) Phase	(3) Impact Categorisation	(4) Potential Significance	Design, Enhancement or Mitigation Measures	Management Plans, Policies and Procedures	Residual Significance
	mothers/fathers.' (as defined under Mongolian law).					▪ D15: Resettlement Action Plan. ▪ D16: Influx Management Plan. ▪ D17: Labour Management Plan.	
Increased Revenues for the State Budget	National, regional and local authorities	Construction Operations	**Extent**: Widespread **Duration**: Medium-term **Likelihood**: Certain	Positive	▪ Compliance with General Taxation Law of Mongolia. ▪ Royalty payments and mining licence fees. ▪ Transparent payments to the government as part of Extractive Industries Transparency Initiative (EITI). ▪ Payment of taxes to the authorities: ○ Corporate income tax; ○ Personal income tax; ○ Customs tax and excise duty; ○ National insurance (social security) contributions; ○ Land use and lease payments; ○ Immovable property tax and rental payments; ○ Stamp fees and other state duties; ○ Water use fee; and ○ Motor vehicle tax. ▪ Capacity building and training for local government, including on budget management and transparent reporting	Local Regional Planning and Infrastructure (LRPI) initiative to support the Southern Gobi Regional Development Council Measures stipulated in Investment Agreement (IA): ▪ 4.5. Support socio-economic development policies and activities undertaken by Southern Gobi local administration and develop partnerships to ensure that sustainable benefits from the Oyu Tolgoi Project reach Mongolian people, including people in Omnogovi *Aimag*. ▪ 4.9. The Investor shall establish cooperation agreements with local administrative organisations, including in relation to the establishment of local development and participation funds. ▪ Oyu Tolgoi Local Regional Planning and Infrastructure (LRPI) unit. ▪ Local Business and Economic Development (LBED) Programme.	Positive

Notes:

(1) Receptors: Defines the Affected or Other Interested Parties

(2) Project Phase: Construction, Operations, Decommissioning and Mine Closure

(3) Impact Categorisation:

Duration: Short-term, Medium-term, Long-term

Extent: Highly Localised; Localised; Restricted; Widespread

Likelihood: Highly Unlikely; Unlikely; Likely; Certain

(4) Potential Significance: Major Adverse; Moderate Adverse; Minor Adverse; Negligible; Positive