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About the organisations

This report has been produced for the Green Economy Coalition by the Economic Policy and Competitiveness Research Centre (EPCRC).

As a national think tank the Economic Policy and Competitiveness Research Center (EPCRC) aims to conduct in-depth research and reporting that help build a competitive and sustainable Mongolia using globally accepted research methodologies. The EPCRC is committed to delivering factual knowledge about the Mongolian economy and competitiveness both domestically and internationally by producing reliable sources of information.

The EPCRC leads the Green Economy Coalition Mongolian hub, an ongoing initiative to accelerate a regional transition to a green economy. For more information, please see www.ecrc.mn

The Green Economy Coalition (GEC) is the world’s largest civil society movement for green and fair economies. Our 50+ members represent poor people, workers, environmental organisations, faith groups and small businesses as well as international institutions. Together, we areinspiring a movement for change from the ground.

For more information, please see greeneconomycoalition.org, or contact Stuart Worsley: stuart.worsley@greeneconomycoalition.org

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Executive Summary

A golden opportunity for green economy

For the first time, new research has quantified the opportunities of the green economy in Mongolia. Legislative commitment and investment in sustainable, inclusive economic practice could have a transformative effect by 2030. But is the country ready to make the commitment to a sustainable future?

This paper, produced by Mongolian economic think tank The Economic Policy and Competitiveness Research Center (EPCRC), lays out the potential benefits of embracing a sustainable future for Mongolia.

Committing to the green economy would end the country’s precarious dependence on the volatile boom / bust cycles of commodity-led growth. It would boost employment by 5% by 2030. Per capita GDP would be up by a third in real terms, while poverty would be cut by an additional 2%, and greenhouse gas emissions slashed by 17%.

But is Mongolia ready to fulfil its potential as a future green economy champion? This report – a shortened summary of the 2018 Mongolian Green Economy Barometer, produced with the support of the Green Economy Coalition and the European Union - tracks the transition, celebrates success and identifies opportunities for action.

Mongolia’s mining industry drove explosive economic growth in the early 21st century. But over the last few years a slump in global commodity prices has caused an economic downturn, highlighting the fragility of Mongolia’s progress to date, and the need to diversify away from mineral exports as the main driver of economic growth.

In 2017, the International Monetary Fund (IMF) approved a financing package of USD 5.5 billion, designed to lay the foundation for sustainable, inclusive growth and end the commodity-led boom / bust cycles of the past. To achieve these goals, however, requires more than just finance.

Faced with poverty, inequality, serious environmental challenges and a constrained economy, there is only one solution that can tackle all these issues: a strategic commitment to the green and fair economy. Happily, the prospects are bright.

The EPCRC’s 2017 Green Policy Assessment Report suggests that in the long run, supporting green economic planning will offer a more sustainable path for the future.

The modelling found that if 4% of GDP were invested for green development:

- Economic growth will be more sustainable and less volatile
- The unemployment rate will decrease by 2% by 2030;
- Real GDP per capita will grow by a third, reaching MNT 3.1 million (USD 1,297) by 2030;
- The poverty rate will fall to 10% by 2030 (down from 21.6% in 2014)
- Greenhouse gas emissions per unit of GDP will be reduced by 17%.

But how is the transition shaping up? This report lays out Mongolia’s progress so far, and considers next steps for the country.

Overview of the Mongolian Economy

Geography

Mongolia is the world’s 18th largest country by land mass, covering an area of approximately 1.6 million square kilometres, and the world’s second largest landlocked country (positioned between Russia and China).

Mongolia is a resource-rich country, ranking 7th in global resources with around 1170 known deposits and over 10,000 known instances of 80 different types of minerals. Coal, copper, gold, silver and uranium are the main abundant minerals, according to the Mineral Resource Authority of Mongolia.

In addition to mineral wealth, Mongolia has a long tradition of raising livestock. In 2016 the total number of livestock in Mongolia stood at 61.5 million.

Mongolian weather consists of long cold winters and short summers. Temperatures in the capital city, Ulaanbaatar fall below -40° in winter, making it the coldest capital city in the world. Despite the harsh winters, Mongolia is known as the land of the blue sky, with an average of 3,000 hours of sunshine annually.

Population

Mongolia has a population of around 3.1 million people, and is one of the most sparsely populated countries in the world, with an average population density of 1.8 people per square kilometer. However, 52.7% of the population live in urban areas, and as of 2016, 46.2% of the total population, or nearly 1.5 million people, resided in Ulaanbaatar. The “Poverty profile 2016” study done by the National Statistical Office showed that poverty in Mongolia increased by 8% in 2015 as the poverty headcount reached 907,500 people meaning that nearly 30% of the population are considered as poor. In other words, 30 people out 100 cannot afford to buy necessary food and non-food items.¹

¹ National Statistics Office of Mongolia, Poverty Profile 2016

"Temperatures in Ulaanbaatar fall below -40° in winter, making it the coldest capital city in the world."
Table 1: Poverty levels in Mongolia’s regions

<table>
<thead>
<tr>
<th></th>
<th>National</th>
<th>Western</th>
<th>Khangai</th>
<th>Central</th>
<th>Eastern</th>
<th>Ulaanbaatar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poverty headcount</td>
<td>29.6</td>
<td>36.0</td>
<td>33.6</td>
<td>26.8</td>
<td>43.9</td>
<td>24.8</td>
</tr>
<tr>
<td>(0.7)</td>
<td>(1.4)</td>
<td>(1.3)</td>
<td>(1.4)</td>
<td>(1.7)</td>
<td>(1.3)</td>
<td></td>
</tr>
<tr>
<td>Poverty gap</td>
<td>7.7</td>
<td>9.7</td>
<td>8.2</td>
<td>7.0</td>
<td>12.5</td>
<td>6.4</td>
</tr>
<tr>
<td>(0.2)</td>
<td>(0.5)</td>
<td>(0.4)</td>
<td>(0.5)</td>
<td>(0.7)</td>
<td>(0.4)</td>
<td></td>
</tr>
<tr>
<td>Severity</td>
<td>2.9</td>
<td>3.7</td>
<td>2.9</td>
<td>2.7</td>
<td>4.8</td>
<td>2.5</td>
</tr>
<tr>
<td>(0.1)</td>
<td>(0.2)</td>
<td>(0.2)</td>
<td>(0.2)</td>
<td>(0.3)</td>
<td>(0.2)</td>
<td></td>
</tr>
</tbody>
</table>

Memorandum items:
- Population share (%): 100.0
- Population (’000): 3,063.6
- Share in poor (%): 100.0
- Poor (’000): 907.5
- Household size: 3.5
- Dependency ratio (%): 41.7
- Children (% household size): 25.5
- Age of household head: 45.7
- Male-headed households: 75.2
- Urbanization (%): 67.8

Note: Population data is based on administrative data and refers to the estimated population at the end 2016 in Mongolia. Standard errors taking into account the survey design are shown in parentheses.

Over the past five years, poverty levels in Mongolia have decreased. Table 1 shows poverty levels in the regions: Khangai, Western, Eastern, Central and Ulaanbaatar. Poverty levels in Ulaanbaatar and the Central region are the lowest, while poverty levels in the Eastern region are the highest.

Economy

Despite having high growth in recent years due to global commodity price booms, since 2013 economic growth has been falling due to declining commodity prices. As can be seen in Table 2, in 2011 economic growth hit 17%, before falling to only 1% in 2016. Following the deteriorating condition of the economy, in 2017, the International Monetary Fund (IMF) approved a financing package totaling approximately USD 5.5 billion.

The purpose of this package is to lay the foundation for sustainable, inclusive growth in the future and end the boom-bust cycles of the past. With IMF support and a rise in commodity prices, it is anticipated that the Mongolian economy will stabilize in the coming years. However, it is important that Mongolia implements sustainable economic diversification policies and economic growth strategies.

The Green Policy Assessment Report 2017 authored by the EPCRC suggests that in the long run, supporting green economic growth would offer a more sustainable path for Mongolia going forward.

The report presents scenarios utilizing the Threshold 21 (T21) framework jointly developed by the Millennium Institute, the Mongolian Ministry of Finance and Ministry of Environment and Tourism to test the effects of investing in a green economy in Mongolia.

The modelling found that if 4% of GDP was to be invested for green development:
- Economic growth will be sustainable and more consistent over the long term, with less dependency on volatile commodity prices
- Employment will increase by 5.23% by 2030;
- Real GDP per capita will reach MNT 3.1 million by 2030 (up from MNT 2.1 million in 2014);
- The poverty rate will fall to 10% by 2030 (down from 21.6% in 2014); and
- Green-house gas emissions will be reduced by 17%.2

2 EPCRC (2017), Green Economy Policy Assessment Report of Mongolia, p63-64
**Mongolia’s key challenges**

### Increasing Urbanisation

Large-scale migration from rural to urban areas began in 1990. The population of Ulaanbaatar grew from around 0.6 million in 1996 to 1.6 million in 2016, an increase of around 165% in two decades.

As more people move to the city, problems such as traffic congestion, air pollution and inadequate infrastructure have arisen.

The cold weather and the lack of unemployment in rural areas are key drivers behind the increasing migration problem.

Former herders who lost their domestic animals to harsh weather conditions such as “dzud” (a natural disaster where thick snow and ice cover stop animals from reaching fodder, causing livestock to die of starvation) migrate from rural to urban areas.

Roughly 20% of Mongolia’s population have migrated to the city in the last three decades.

### Air Pollution

The growing air pollution of Ulaanbaatar is a key factor affecting the health of the population, in particular the physical growth of children, respiratory and cardiovascular diseases, immune system disorders and cancerous diseases. The PM 2.5 levels in the city are routinely substantially higher than WHO Air Quality Standards, with an average level of 75.

Sources of air pollution include dust from the desert and unpaved roads, coal power plants, vehicles, but particularly stoves and boilers in the extensive ger (traditional Mongolian nomadic tent) districts. Former herders move from rural to urban areas bringing their own gers and settle on the outskirts of the city.

Since people who live in ger areas don’t have any access to basic city infrastructure systems, they have to live without piped-water, sanitation and central heating systems. As a result, hundreds of thousands of families in the ger districts burn coal, wood and other waste materials for cooking and heating which contributes to the severity of air pollution in winter. Fortunately, summer air pollution is much lower than in winter.

The other urban areas of Mongolia, such as the second and third largest cities Erdenet and Darkhan and provincial centers are following the same path of Ulaanbaatar, and the air pollution problem in those cities is also growing year by year.

This issue has attracted considerable public attention in Mongolia, and public frustration at low air quality is a growing political issue for the government.

### Land degradation and desertification

The Mongolian steppe is one of the world’s largest remaining grassland ecosystems, but in recent years it has begun to face serious degradation.

As a direct result of climate change, hundreds of Mongolia’s lakes and rivers are drying up desertification are due to climate change, over-grazing, or both.

### Water scarcity

As a direct result of climate change, hundreds of Mongolia’s lakes and rivers are drying up, and there is a significant desertification of land, especially in the southern Gobi desert regions, where most mining resources are located.

Mongolia’s surface water resources are concentrated in the northern regions, which are more inaccessible than the drier central and southern part. According to a report released by the Asian Development Bank in 2014, Mongolia has a high reliance on groundwater resources which accounted for 80 percent of all freshwater consumed in 2010.

In addition to concerns about the volume of water available for consumption, there are also emerging concerns about the quality of water available due to increased livestock raising, mining and urbanization.
Encouragingly, Mongolia appears to be committed to transitioning towards a greener economy at both the domestic and international level.

International commitment and advocacy

In December 2015, Mongolia ratified the Paris Agreement following the COP21 international conference on climate change. As part of this commitment, Mongolia is also a member of the Green Climate Fund (discussed further below), which aims to finance investment in low-emission and climate-resilient development.

In 2013, Mongolia was also one of the first countries to participate in the Partnership for Action on Green Economy (PAGE), an international organization dedicated to helping countries in their transition to a greener model of development.

Further, Mongolia also actively participates in the Global Green Growth Institute, dedicated to supporting and promoting strong, inclusive and sustainable economic growth in developing countries and emerging economies.

Mongolia is also closely involved with the United Nation’s (UN’s) Poverty-Environment Initiative, a global programme that supports country-led efforts for governments to include pro-poor, pro-environment objectives into national and sub-national development.

National agenda and road-maps

At the national level, the Mongolian Government is taking a number of positive steps to support a greener economy.

In June 2014, the Mongolian Government approved the National Green Development Policy (NGDP). The goal of this policy is to advance Mongolia’s national development in an environmentally sustainable manner.

To date, there have been several positive steps taken under the NGDP, with actions including:

- providing income tax exemptions for 41 types of equipment using solar and wind energy, with 21 entities receiving tax exemptions worth approximately USD 1 million;
- introducing tax exemptions for wood imports, which helped avoid the clearing of 1,645 hectares of forest; and
- a memorandum of understanding was signed by the Mongolian Banking Association, MEGDT, Bank of Mongolia and Mayor of the Capital City to implement the Sustainable Financing programme.

More recently, in February 2016, the Mongolian Government approved Mongolia’s Sustainable Development Vision 2030 (SDV 2030).

The SDV 2030 is a direct application of the UN Sustainable Development Goals (SDGs). The UN SDGs are 17 goals designed to be adopted globally, to end poverty, protect the planet, and ensure prosperity for all. Figure 3 summarises the overall SDV directions, objectives and targets.

While some of these objectives are precise (for example, reduction of heat loss by 40% in 2030), others are vaguer (for example, “enforce the standards” for green cities) and leave room for interpretation. At the time of writing this report, there is yet to be an assessment of Mongolia’s progress towards the SDV 2030.

Subnational Interest

Political authorities in Mongolia are also in the process of integrating those sustainable targets into sub-national jurisdictions. Under the NGDP, five provinces expressed their interest to become “model green provinces”.

Under this commitment, certain provinces (aimags) have adopted vision statements which focus on sustainable development, implemented green development frameworks, and adopted green development principles.

At the national level, the Mongolian Government is taking a number of positive steps to support a greener economy.
Green economy indicators

Sustainable Development Goals

The SDG Index provides an overall assessment of progress towards implementing the UN SDGs, and enables comparison with peer countries. Mongolia's overall global rank (95th out of 157 countries) in achieving the SDGs is comparable to its performance in other development metrics (for example Human Development Index, subjective well-being, GDP per capita) and is consistent with its status as a developing country.

Moreover, Mongolia's general index score (64.2) is very close to the regional average of East and South Asian countries (63.3).1

However, these figures overlook notable discrepancies between different individual goals. Whilst Mongolia performs comparatively well in SDGs 1, 4 and 10 (respectively “no poverty”, “quality education” and “reduced inequalities”), with scores above 75 percent, there is still significant room for improvement in most of the goals.

Indeed, 8 out of 17 goals should still be considered priorities as they are classified as red on the SDG scale, meaning that the current figures are still very far from the objectives. In particular, SDGs 2, 7 and 9 (“zero hunger”, “affordable and clean energy”, “industry, innovation and infrastructure”) appear to be the most pressing issues for Mongolia according to the SDG indicators.

This is evidenced by the fact that progress scores in these sectors has not yet reached 50 percent. Making progress on these goals will require sound strategic planning as infrastructure, energy and innovation are costly long-term investments.

However, these fields are at the core of the concept of sustainable development and, therefore, should be tackled urgently.

Global Green Economy Index

The Global Green Economy Index (GGEI) analyses national green economic performance.2 It compares 80 countries around the world according to one common metric, the GGEI index, and is a useful tool to assess and compare national progress in the transition towards green economy.

Overall, Mongolia performs poorly in the Global Green Economy Index, ranking 79th out of 80 countries in 2016.

However, analysis of the sub-indicators reveals disparities in Mongolia's performance. For example, Mongolia's performance in “leadership and climate change” is considered “decent”. This is partly due to government green growth policies, and Mongolia's international advocacy for cooperation in the area of sustainable development.

Moreover, the country's score in “environment” is not as low as in “market and investment” and “efficiency sectors”. These two latter indicators reflect the relative weaknesses of Mongolia’s transition towards green economy. The gap between the official narrative, emphasizing strong commitments, and the actual implementation process remains the main challenge.

The gap between the official narrative, emphasizing strong commitments, and the actual implementation process remains the main challenge.

This is evidenced by Mongolia’s comparatively better rank in the “perception” index, for which Mongolia ranks 12 positions higher (67th) than its overall performance ranking.

To a certain extent, the government’s goodwill seems to be recognized, including internationally. Turning official government policies into concrete actions and achieving tangible outcomes will be a crucial part of Mongolia’s transition to a greener economy.
Reforming financial systems

Green Financing in Mongolia

Mongolia’s efforts to transition to a more sustainable and greener economy will require very substantial investment. The Mongolian Bankers’ Association has estimated that approximately USD 7 billion is required for national projects focusing on energy efficiency, renewable energy, buildings, waste and transportation. A further USD 4.3 billion is required to tackle air and soil pollution and quality.

Evidence suggests that, to date, there are limited efforts by Mongolia’s financial sector to support Mongolia’s transition to a greener economy. To further highlight the challenge, Figure 5 below shows Mongolia’s financial sector is interested and participating in supporting Mongolia’s transition to a green economy.

Since 2013 Mongolia has held an annual Mongolian Sustainable Finance Forum (sponsored by the Mongolian Bankers’ Association), bringing together key government agencies, industry players and financial institutions to discuss how they can work together to support a greener Mongolia.

Various initiatives underway demonstrate that limited funds are being made available for green and sustainable projects. For example, in December 2016, XacBank entered an accreditation agreement with the Green Climate Fund (GCF). When launched, it is expected the fund will initially mobilize USD 8 – 10 million to fund energy efficiency retrofit projects in public buildings throughout Ulaanbaatar.

Whilst these initiatives are welcome, and should be encouraged to the greatest extent possible, it is clear that significant challenges remain in increasing financial flows in support of a greener Mongolia.

Green Jobs

Mongolia has a number of challenges in various key economic sectors. The table above highlights some of the various challenges in respect of agriculture, mining and energy.

Green Sectors

Mongolia has a number of challenges in various key economic sectors. The table above highlights some of the various challenges in respect of agriculture, mining and energy.

Agriculture

- Agriculture is one of Mongolia’s most important economic sectors, but as with mining, also needs improved policy frameworks.
- Approximately 70% of Mongolia’s pastures are showing signs of degradation.
- Increased demand for cashmere (an important source of income for many) also heightens environmental pressures from this sector.
- However, so far, little evidence has been found of significant efforts to improve the sustainability of this sector.

Mining

- SDV 2030 aims to encourage a more transparent and competitive mining sector in Mongolia.
- In 2016, mining companies in Mongolia spent only USD 1 million for environmental protection.
- Land remediation efforts appear to be minimal and insufficient.
- Given its critical importance to Mongolia’s economic development, substantial improvements must be made in this sector.

Energy

- Seven percent of Mongolia’s total energy production is currently renewable.
- SDV 2030 aims to have 30% renewable energy by 2030.
- Recent developments include the 50 megawatt Totsii (2017), 120 megawatt Saamhand (2016), and 50 megawatt Salkhit (2013) wind farms.
- The Mongolian Government provided tax breaks for imported equipment used for renewable energy projects.

Social development

Social development

Green Sectors

Mongolia has a number of challenges in various key economic sectors. The table above highlights some of the various challenges in respect of agriculture, mining and energy.

Green Jobs

As noted earlier, one of the six strategic objectives under the Mongolian NGDP is promoting green jobs. Under the ILO’s definition “green jobs” combine the characteristics of social responsibility, providing decent wage and social protection, and environmental sustainability.

The EPCRC completed Mongolia’s first green jobs mapping study in 2014 at the request of PAGE (ILO, Ministry of Environment and Green Development at that time).

It was well received by the UN and other stakeholders. This mapping study quantified existing green jobs, mapped these out across economic sectors and subsectors as well as geographical areas, and identified the decent work deficits in other jobs.

In 2017, a pilot survey to estimate the demand for green jobs in Mongolia for the first time, in line with international methodologies, was completed by the Mongolian National Statistics Office, the International Labour Organisation (ILO), and PAGE. Under the ILO’s definition, “green jobs” combine the characteristics of social responsibility, providing decent wage and social protection, and environmental sustainability.

The survey estimated there were 112,300 green jobs throughout the country in the second quarter of 2016, which represent 9.9% of all jobs in Mongolia. Whilst this was the first survey of its kind in Mongolia, the thorough methodology used by the researchers undoubtedly laid the ground for future evaluations. Indeed, monitoring the trend in green jobs is a way to ensure that Mongolia’s transition to a green economy is more widely discussed.
This pilot survey also provides some useful insights into the distribution of green jobs throughout the Mongolian economy. The results indicate that 30.3% of all green jobs are in education, 15.9% are in manufacturing, 9.4% in mining and 6.2% in management. While education is, of course, an investment for the future, it is hopeful that the proportion of green jobs will progressively shift towards sectors where the need for environmental (and social) sustainability are the most urgent. This is particularly true of the mining sector, given Mongolia’s reliance on this sector for economic growth.

Inequalities and poverty

Since it opened its economy in the 1990s, Mongolia has been performing relatively well in terms of income equality on the basis of certain statistical indicators (GINI coefficient, inequality-adjusted HDI, Palma ratio). Up until 2014, Mongolia showed encouraging results in poverty reduction and lifted much of its population above the poverty line. However, the latest figures indicate a strong increase in prevalence of poverty since 2014, due to the recent economic downturn, highlighting the fragility of Mongolia’s progress to date.

Unlike most developing countries, inequalities in Mongolia haven’t skyrocketed over the past 25 years. The poverty rate is on a decreasing trend. However, Mongolia’s overreliance on exports of natural resources creates discrepancies, and economic development is much more rapid in regions where the most productive mines are concentrated, like the Orkhon province. In the coming years, balancing these geographical discrepancies through diversification of the economy and improved social safety nets should be considered as part of the agenda in order to ensure economic and social inclusiveness as part of a “green growth” strategy.

Mongolia’s transition to a green economy: Where do we stand?

Using the milestones of the GEC framework, and considering the various achievements and challenges outlined in this report, Mongolia’s progress towards a green economy can be ranked as 3 out of 10.

Mongolia is a good example of the crucial difference between legislative commitments on paper, and genuine action on the ground. New policies, laws, and participation in international programmes are necessary elements of the transition, but they are not sufficient in and of themselves.

Mongolia performs very poorly in the Global Green Economy Index, ranking 79th out of 80 countries in 2016, and UN Environment’s 2015 Green Economy Progress index found Mongolia to be regressing significantly on its path to an inclusive green economy.

Although Mongolia’s performance against the UN SDGs is very close to the regional average for East and South Asia, almost half of the 17 SDGs are classified as red, with particular weaknesses against SDGs 2, 7 and 9 (“zero hunger”, “affordable and clean energy”, and “industry, innovation and infrastructure”).

Kicking the transition up a gear needs real awareness, engagement and commitment from the private sector, civil society, government agencies, and the wider public. Luckily, some issues are cutting through to the public – air pollution and green jobs in particular – and are already mobilising public support for green economy measures.

Laudable new initiatives and innovations are beginning to emerge thanks to policy initiatives such as the NGDP and SDV 2030, but this process must be deepened and accelerated. Mongolia’s natural heritage is deteriorating rapidly under the pressure of industrialisation, and current gains in economic and social progress for ordinary Mongolians are at risk of reversal if the country does not choose a more sustainable path.