

WORLD BANK DEVELOPMENT POLICY FINANCE AND CLIMATE CHANGE:

Is the Bank providing the Right Incentives for Low-Carbon Development in Mozambique?



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This publication was authored by Heike Mainhardt.

Review Team: Nezir Sinani, Kate Geary, Debbie Pierce and Margaret Federici.

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The World Bank acknowledges that “all development is now taking place in a world shaped by climate” and that the poor are the hardest hit by climate change impacts.¹ As such, the Bank states that it is committed to help countries avoid exceeding a 2°C warmer world – the globally agreed limit – and assist them onto a low-carbon development path.² Moreover, the Bank maintains that meeting this challenge requires nothing less than “economic transformations and net-zero emissions” and that “creating the right incentives” for this economic transformation is the key. Towards this end, the World Bank has specifically pledged to assist countries to end fossil fuel subsidies.³

The World Bank creates “the right incentives” mainly through Development Policy Finance or DPFs. Through DPFs, the World Bank influences government policies and institutions. The reforms implemented under DPFs are often aimed at increasing investments in a country. According to the IPCC, the most promising window of opportunity for low-carbon development is the significant amount of infrastructure to be built in the coming decades. Much of this new infrastructure will take place in developing countries. The World Bank’s DPF plays a significant role in designing and financially supporting the economic incentives for new infrastructure investments in many developing countries.

As such, DPFs can influence infrastructure investment decisions towards carbon-intensive development or low-carbon development. For example, DPF reforms sometimes include tax breaks or incentives for fossil fuel development. On the other hand, a DPF may include a new legal framework to support the entry of renewables into the market. Reforms implemented under DPFs can drive development trends for many years after the World Bank formal operation has ended. For all of these reasons, **it is critical that DPFs are carefully assessed for climate change risks and designed to specifically support policies that provide the right incentives to prioritize low-carbon infrastructure.**⁴

This paper reviews the World Bank’s recent DPF series in Mozambique including \$305 million Poverty Reduction Support Credit 6-8 series (2009-2012) and \$290 million Poverty Reduction Support Credit 9-11 series (2013-2016). Mozambique is one of the most climate change vulnerable countries in Africa. It is already regularly hit by severe flooding, drought and cyclones. Mozambique currently has several mega coal and natural gas projects in the works and if fully developed will significantly contribute to increasing global greenhouse gas (GHG) emissions. Thus, **it is critical that the investment incentives and governance reforms embodied in the World Bank DPF program in Mozambique specifically prioritize low-carbon development and do not further exacerbate climate change.**

Summary of Findings

The climate crisis and the goal of limiting temperature increase to no more than 2 degrees require both the promotion of renewable energy and the significant reduction in fossil fuel usage. Given Mozambique’s significant climate change vulnerabilities, **any further expansion of fossil fuel burning potentially adds to increasing the severity of climate change impacts to Mozambique’s poor.** Limited public money simply cannot be used to promote and accelerate the expansion of fossil fuels, especially when a country has untapped renewable energy alternatives.

The Mozambique case demonstrates how critical it is to get the investment incentives right to foster low-carbon development. Unfortunately, the World Bank did not get the incentives right for Mozambique. Instead of assisting Mozambique onto a low-carbon development path, by all accounts the World Bank’s current policy lending through the Poverty Reduction Support Credit (PRSC) series is supporting Mozambique to develop

fossil fuels to the fullest extent through legal frameworks that enable and subsidize mega-scale coal, oil and gas projects.

In addition, the Bank's environmental assessment of the PRSCs did not adequately consider climate change risks or risks to forests. As such, the World Bank DPF-supported reforms include, *inter alia*:

Subsidies for Coal – The World Bank PRSC-9 stipulated a new Mining Tax Law. Even though the new law provided subsidized coal to coal power plants and custom duty exemptions for coal mining, **the Bank's PRSC-10 program document stated concern regarding limited tax deductions for mining and further specified: "If the new regulatory framework deters further investment in the sector, particularly at a time of relatively low coal prices, a further revision of the legislation may be needed and the ongoing [PRSC] series could support such a revision."** In addition, the Bank-supported new Public Private Partnership, Mega Projects and Concessions Law provides subsidies to coal projects (e.g., power plants, railways, and ports), including project preparation costs, land acquisition costs, and potential government finance and guarantees. All of these subsidies stand to prop up the coal sector instead of allowing the current low international prices for coal to reduce such investments.

Subsidies for Oil and Gas Exploration – The World Bank-supported new Petroleum Tax Law (which applies to oil and gas) provides substantial subsidies to oil and gas exploration, including hyper-accelerated rate of depreciation coupled with a loss carry forward allowance of 5 consecutive years, and VAT exemptions. These subsidies directly undermine the Bank's stated commitment to the 2°C goal as the world already cannot burn two-thirds of existing reserves of fossil fuels in order to remain below 2°C warming.

Lack of Energy Access for the Poor – The World Bank-supported policy reforms cater to export projects and extractive industry needs and as such undermine the supply of electricity to the domestic population. Proposed coal power plants, which benefit from World Bank-supported reforms, are slated to power more coal mining and provide some power to the existing power grid. However, Mozambique suffers from a lack of adequate transmission lines to carry the power to poor communities. There is no indication that the energy infrastructure supported by policy reforms of the Bank's DPFs will provide access to poor Mozambicans any time soon.

Inadequate Support for Renewable Energy – Mozambique has potentially significant solar, wind and geothermal resources.⁵ The World Bank's Second Climate Change Development Policy Operation included the establishment of a Renewable Energy Feed in Tariff. However, the World Bank's current PRSC series does not provide any Prior Actions related to climate-smart renewable energy or decentralized/distributive power systems, which could serve poor communities. Moreover, the policy reforms supported by the World Bank PRSC-DPF operations put Renewable Energy investments at a disadvantage due to the oil, gas and coal incentives/subsidies contained within the Prior Actions of these DPF operations.

Heightened Deforestation Risks – The World Bank-supported policy reforms specifically aim to increase investments in coal mining. Tete Province is at the forefront of both Mozambique's coal mining boom and deforestation crisis. Coal mining concessions and exploration licenses approved and pending approval cover around 60% of the province's area, representing around six million hectares of land.⁶ The large-scale open pit mines also relocate farming communities, which causes further land clearance for new farms.

Recommendations

World Bank development policy finance represents a crucial opportunity to re-orient countries onto a low-carbon development path and to better protect climate vulnerable poor communities. As such, the World Bank must heed its own advice on confronting climate change by providing the right incentives for a clear pathway to low-carbon development. To this end, the World Bank should adopt:

1. **Robust Climate Change Assessment for DPFs – Does it pass the 2 degree test?** The Mozambique

case demonstrates how critical it is to fully assess and adequately address the climate risks associated with reforms contained in Development Policy Finance. Such operations reach far beyond the impacts of project investments and yet they are not adequately assessed by any Bank operational policy. The Bank should revise Operational Policy 8.60 on Development Policy Lending to ensure adequate assessment and mitigation of climate risks, including risks to forests.⁷ Overall, the DPF operation must be assessed against the World Bank's commitment to the globally-agreed goal of limiting temperature rise to 2°C. (For more details, please see the Recommendations section at the end of the document.)

2. **Improved DPF Transparency** – It is very difficult to understand the specific reforms and government actions supported by the World Bank's DPF operations, especially if one only reads the Bank's program documents. In order for community stakeholders to understand what these operations are supporting and the potential social and environmental risks of these DPF operations, the DPF program document must disclose:
 - All measures contained in DPF-supported laws, policies and investment frameworks.
 - All current and planned investment projects related to the DPF operation.
3. **Sufficient Low-Carbon Incentives** - DPFs must be specifically designed to promote incentives that prioritize low-carbon development over carbon-intensive options. DPF operations should be assessed to determine if all possible low-carbon alternatives have been adequately supported before any other options are considered.
4. **Comprehensive End to Fossil Fuel Subsidies** – The World Bank's Climate Action Plan states that “the WBG will scale up country-level support and global advocacy to “get prices right” by reducing damaging fossil fuel subsidies...” The Bank often does not recognize its own promotion and creation of new fossil fuel subsidies largely to producers through support for government guarantees, infrastructure investment incentives, and Public-Private Partnerships. Producer subsidies are the drivers of investment and, in the case of those provided to fossil fuels, a significant barrier to low-carbon development.
5. **Elimination of Measures Supporting Fossil Fuel Exploration** – According to the Intergovernmental Panel on Climate Change (IPCC) and the International Energy Agency (IEA), in order to meet the internationally agreed goal of limiting global average temperature increase to 2 degrees Celsius, at least two-thirds of already existing reserves of fossil fuels need to be left in the ground. Thus, any DPF measures supporting fossil fuel exploration are directly incompatible with preventing the worst impacts of climate change. It is worth noting that the Asian Development Bank already excludes finance for oil and gas exploration.
6. **Comprehensive Forest Protection** – The World Bank Group's Climate Action Plan, together with the new Forest Action Plan FY16-FY20, specifically states that “the WBG aims to support clients to promote growth that does not come at the expense of their natural forests...” As such, the World Bank must ensure ex-ante DPF assessment of potential risks and impacts of land use change, including direct and indirect impacts to forests. Any DPF reform measures that support project investments that could cause significant adverse impacts to primary forest or critical habitat, and the peoples that depend upon them, should not go forward.

Mozambique and Climate Change

Mozambique is one of Africa's most vulnerable countries to climate change. Mozambique is exposed to a number of climate hazards, which climate change promises to exacerbate – including droughts, floods and cyclones, as well as incremental climate change, including temperature increases; changes in rainfall; and sea level rise.

Mozambique has a long coastline of about 2,700 km, with more than 60% of its population of 22 million living in coastal areas, exposing large numbers of people to sea-level rise and climate extremes.⁸ Critical sectors that will be at increasing risk include agriculture, infrastructure, power, water and sanitation, social protection, and health. The World Bank estimates as much as 58 percent of the population (or approximately 14.6 million people) and more than 37 percent of GDP are at risk from two or more climate hazards.⁹

According to the UN Food and Agriculture Organization (FAO), the current drought and the associated poor harvests in the south and some central areas are expected to result in stressed food security conditions throughout 2016-17. A government-led assessment in five of the most drought-affected provinces (Tete, Manica, Sofala, Inhambane, Gaza and Maputo), estimated that 1.5 million people are currently in need of humanitarian assistance.¹⁰

One World Bank staff in Mozambique states:

“Most importantly, these natural disasters have a human face and are felt more acutely among the poorest. The threat posed by climate change can be contained by adopting climate-smart development policies that encourage rapid and inclusive development and takes into account climate change, targeted adaptation measures, and emissions reductions efforts that protect the poor. Without such action, climate change could push as many as 43 million Africans into poverty by 2030 and I believe among them, a great number of Mozambican poor.”¹¹

According to the World Resources Institute, in 2012 Mozambique's total GHG emissions, including land-use change and forestry (LUCF) stood at 57.66 MtCO₂e.¹² The largest source of GHG emissions stemmed from LUCF at 57 percent, followed by agriculture at 28 percent.

Emissions from LUCF in Mozambique are largely due to deforestation. In 2011, Mozambique had 1,641 million metric tons of carbon stocks in living forest biomass.¹³ In 2012, the country lost 627,000m³ of forest.¹⁴ In March 2015, *Mail and Guardian* reported that if the high rate of deforestation continues, Mozambique will likely be stripped of its forests in just a few years.¹⁵ In November 2015, **the Mozambican government instituted a ban on all export of raw timber logs for two years.**¹⁶

The main drivers of deforestation are logging – of which a large amount is illegal logging, charcoal production and agriculture.¹⁷ **On the front lines of Mozambique's growing deforestation crisis is Tete province.**¹⁸ The forests in Tete province are predominantly Mopane forests. The Mopane forest eco-region is one of the most important in Southern Africa, and is home to key species such as the elephant, rhino, buffalo, lions, impala, hyenas, and leopards.¹⁹ The two leading economic activities in Tete are agriculture and, since 2011, a coal mining boom – both putting pressure on forest cover.

Although the energy sector only accounted for 1 percent of GHG emissions in 2012, Mozambique is slated for several “mega” projects in the coal and natural gas sectors that are projected, if developed as currently planned, to dominate Mozambique's economic development for decades to come. If the mega coal and gas projects are developed to their full potential, Mozambique could potentially become one of the World's top exporters of both commodities by 2017-20.^{20, 21} Given the vast majority of the coal and gas is planned for export, the significant GHG emissions associated with these investments will likely not be accounted for by Mozambique's domestic GHG inventory, however, the associated emissions stand to undermine global efforts to reduce GHG emissions enough to remain under 2°C warming.

While Mozambique has zero historical responsibility for climate change, the country already experiences some of the world's worst droughts and floods, which will be made worse by climate change. The country has significant untapped renewable energy resources, yet it is set to rapidly extract and export huge reserves of coal and natural gas. The burning of which will emit globally significant GHG emissions and make Mozambique even more vulnerable to extreme weather problems that devastate its poor communities the greatest. Thus, it is critical to determine whether the World Bank's Development Policy Finance in Mozambique helps to steer the country onto a low-carbon development path or further exacerbates conditions enabling the carbon intensive path.

The Right Incentives: Investment incentives typically refer to subsidies intended to attract investment using: financial incentives (such as grants or loans at concessionary rates); fiscal incentives (such as tax exemptions or reduced tax rates); subsidized infrastructure and exemptions from regulations or standards.²²

In order for the World Bank to get the incentives right for a low-carbon transition, the Bank must understand what kinds of investment incentives are most effective at raising capital for renewable energy projects, what associated legal frameworks are necessary for renewable energy to take advantage of investment incentives and what amount of support is affordable. In addition, the World Bank must stop supporting subsidies for fossil fuel investments, which includes exempting fossil fuel projects from incentives provided through general infrastructure investment frameworks.

World Bank DPFs and Prior Actions: Given that economic incentives for infrastructure investments are key to fostering low-carbon development, this paper assesses, *inter alia*, the World Bank's policy and institutional reforms required by the Bank's DPF programs. Required policy reforms, such as new laws pertaining to infrastructure development, are determined by the DPF's Prior Actions.

According to the World Bank:²³

Prior actions are a set of mutually agreed policy and institutional actions that are deemed critical to achieving the objectives of the program supported by a development policy operation and that a country agrees to take before the Board approves a loan (credit or grant). Prior actions are legal conditions for disbursement. Triggers, as used in the context of programmatic development policy operations, are the planned actions in the second or later year of a program that are deemed critical to achieving the outcomes of the program and that will be the basis for establishing the prior actions for later operations. In other words, triggers are expected prior actions of the next operation in a programmatic series.

The World Bank's Development Policy Financing in Mozambique

Mozambique is categorized by the World Bank as a low-income country with approximately half of its population living in poverty. As such, one of the main development policy finance (DPF) mechanisms of the World Bank is the Poverty Reduction Support Credit (PRSC), which is intended to support the implementation of the Government of Mozambique's Action Plan for the Reduction of Absolute Poverty (known as PARPA). The PARPA's three strategic pillars are: (i) boosting productivity in the primary sector, particularly agriculture and fisheries; (ii) promoting strong employment growth by attracting increased investment and building the human capital of the labor force; and (iii) supporting improvements in social indicators. The two cross-cutting support pillars are good governance and macroeconomic stability.

Table 1 below provides a summary of all World Bank operations in Mozambique containing actions relevant to energy infrastructure approved from 2001 to 2016. For the last fifteen years, World Bank assistance to the government of Mozambique involving the energy sector has had a focus on coal and gas development. This assessment concentrates on the more recent DPF operations from 2011 to 2016.

Table 1. World Bank Operations involving Energy Infrastructure 2001 to 2016

World Bank Operation	Funding; Time Period	Actions Related to Energy Infrastructure
Mineral Resources Management Capacity Building Project	\$18 million; March 2001 to June 2007	New Mining Law 2002 & Regulations 2006; mining cadastre and registry system, investment promotion; geological infrastructure; environmental management
Economic Management and Private Sector Adjustment Credit	\$120 million; August 2002 to July 2004	Privatization of the state petroleum company PETROMOC
Energy Reform and Access Project	\$40 million; August 2003 to March 2011	Address barriers to renewable energy – 311 PV institutional systems installed – did not make progress on peri-urban or rural grids
Southern Africa Regional Gas Project (& MIGA guarantee)	\$30 million; November 2003	Develop the Temane and Pemba gas fields and Sasol gas pipeline for export to South Africa.
Beira Railway Project	\$110 million; March 2005 to December 2011	Railway predominately aimed at transporting coal from Moatize to Beira Port; Sena line was rehabilitated
Mozambique-Malawi Transmission Interconnection Project	\$93 million; July 2007 to August 2016	Improve infrastructure to support power trading in the Southern Africa Power Pool (SAPP)
Poverty Reduction Support Credit 6 (PRSC 6)	\$110 million; November 2009 to October 2010	Implementation of existing land law and facilitating access to land ²⁴ : systematic delimitation of all community lands in rural areas; systematically adjudicate and title urban, peri-urban, and high use value plots in rural areas; conduct comprehensive rural zoning/land use planning for supporting informed decisions and exploiting Mozambique’s development potential.
Energy Reform and Access Project 2	\$80 million; February 2010 to December 2016	Rehabilitation of Primary Network & Grid Extension (urban areas; \$49.30 m US); Rural and Renewable Energy:(\$18.00 m) 291 off-grid electrified
Extractive Industries Transparency Initiative (EITI) Implementation 1 & 2	\$38,000 grant; May 2010 to May 2012 & \$35,000 grant; July 2011	Measures to comply with EITI standards
Poverty Reduction Support Credit 7 (PRSC 7)	\$85 million; December 2010 to March 2011	Adoption of a new Public-Private Partnerships (PPPs), Mega-Projects, and Concessions Law; and simplified licensing
Extractive Industries Technical Advisory Facility	\$75,000; May 2011 to March 2014	LNG Transaction Assistance to Mozambique
Poverty Reduction Support Credit 8 (PRSC 8)	\$110 million; March 2012 to December 2012	Adoption of PPP, Mega Projects and Concessions Law; and simplified licensing procedures ²⁵
Climate Change DPO I & II	I \$50 million; January 2013 to June 2013 II \$50 million; December 2014 to June 2015	Objective is to build effective institutional and policy frameworks for climate resilient development. GHG emissions reductions potential from support for climate-smart agriculture. CC DPO II Prior Action: The Council of Ministers established a Renewable Energy Feed in Tariff (REFIT) mechanism to encourage private sector investment.
Mining and Gas Technical Assistance Project	\$50 million; March 2013 to May 2020	Strengthen capacity and governance systems to manage mining and hydrocarbon sectors; financial advisor to ENH on LNG project participation (Block 1 & Block 4); mining cadastral database; new mining/gas/related infrastructure contracts negotiated; health and environmental monitoring. Block 1 is Anadarko & Block 4 is ENI

Integrated Growth Poles Project	\$100 million; April 2013 to October 2019	\$44 million for Nacala Special Economic Zone including rehabilitation of Nacala Porto-Nacala-a-Velha link road and bridges (US\$6.5 million); traffic has greatly increased since construction of the new port and coal terminal
Poverty Reduction Support Credit 9 (PRSC 9)	\$110 million; July 2013 to March 2014	Draft New Mining Law; Draft New Petroleum Law; an EITI implementation
Poverty Reduction Support Credit 10 (PRSC 10)	\$110 million; December 2014 to March 2015	Adoption of New Mining Fiscal Regime (Mining Tax Law); Adoption of New Petroleum Fiscal Regime (Petroleum Tax Law)
Poverty Reduction Support Credit 11 (PRSC 11)	\$70 million; December 2015 to December 2016	Adoption of New Mining Law Regulations and New Petroleum Law Regulations; EITI compliance

Sources: World Bank Program Documents; Project Appraisal Documents; and Implementation Status Results Reports for the various operations listed.

Note: World Bank operations in bold represent development policy lending and associated technical assistance operations.

The World Bank’s Appraisal Document for its current 2013-2020 Mining and Gas Technical Assistance Project in Mozambique provides an important window into the Bank’s approach to policy lending:²⁶

Historically, the development of mineral resources (or other natural resources) in developing countries in parts of Africa and Asia had little correlation with reducing poverty. However, based on experience in such countries as Australia, Canada, the United States, South Africa, several Gulf countries, and Finland, it is important to recognize that positive impacts on overall poverty levels are achievable with sound governance and resource management policies and targeted programs to implement them.

The Bank’s statement suggests that with their policy lending they can make development of minerals in Mozambique, mainly coal, reduce poverty and have development outcomes similar to the countries listed. This unrealistic assumption is the basis for the Bank’s approach to current policy lending in Mozambique. The following document shows how recent DPFs involving infrastructure investment are predominantly aimed at developing the coal and natural gas/oil sectors. Such an approach still has little correlation with reducing poverty and is the exact development path that is responsible for the climate change crisis.

Poverty Reduction Support Credit 6-8 (PRSC 6-8)

The World Bank’s PRSC 6-8 series support policy reforms that fall under Mozambique’s PARPA II (2006-2010) overall objectives such as “adopting growth enhancing reforms”. Such reforms are largely general economic growth reforms, not specifically targeted at the poor. As such, PRSC 6-8 series (2009-2012) has two main pillars of activity: (1) improvements in public financial management systems; and (2) removing constraints to growth, notably by simplifying business procedures and developing a legal framework to facilitate private sector participation in the provision of infrastructure.

Given it is key for climate change mitigation to get the economic incentives right, this paper focuses on the PRSC 6-8 actions aimed at the legal framework surrounding infrastructure investments.

New Law on Public Private Partnerships, Mega-Projects, and Concessions

The World Bank’s PRSC 8 Program Document stated that “Mozambique is poised to enter into a development era characterized by accelerated development of natural resources including large deposits of coal and natural gas.” Infrastructure directly aimed at facilitating the economic viability of large coal and natural gas investments (railways, ports and power plants) are predominantly being structured as Public Private Partnerships (PPP) and/or Mega Projects (see Tables 2 and 3 below). Investment projects involving the extraction of coal or natural gas

itself come under Concessions but can also be Mega Projects (see Table 3 below).

Prior Actions for PRSC 7 & 8 included the drafting and adoption of a Public Private Partnerships, Mega Projects and Concessions Law.²⁷ As contribution to the PRSC 7-8 operations, the Bank provided the government of Mozambique with an expert on PPPs “to improve the quality of the proposed legislation by providing them with expert advice...”²⁸

In August 2011, the government passed the new Law on Public Private Partnerships, Mega-Projects and Concessions.²⁹ It applies to: (1) all public-private partnerships; (2) concessions involving the use of public goods; and (3) mega-projects, defined as all those that involve investments above US\$500 million, irrespective of sector.³⁰

Although, the World Bank likes to emphasize that the driving force behind its support of the PPP, Mega Projects and Concessions Law is the desire to maximize the impact of such investments on development and poverty reduction and to obtain a “fair distribution” of benefits between host country and investor, the Bank admits that the new law and draft implementation decree are vague when it comes to defining what constitutes a fair distribution of benefits.³¹

Subsidies provided by the new PPP, Mega Projects and Concessions Law

As previously indicated and endorsed by the World Bank, with regards to climate change, it is key to get the economic incentives right. Thus, it is important to understand exactly what incentives are being supported by the new PPP, Mega Projects and Concessions Law and what investments stand to benefit from such incentives (see Tables 2 and 3 below).

According to the World Bank, “by definition there is always a public component to a PPP.”³² The form that this component takes depends on both the legal framework and the specific project and can range from direct financial support, to in-kind support (such as provision of land), and to more indirect or contingent support (such as through government guarantees). However, no matter what form the support takes, it costs the government or costs public money. In other words, **by definition PPP projects are subsidized projects.**

Some of the specific PPP investment incentives/subsidies specified in Mozambique’s new PPP framework include: **compensation for project preparation costs³³ and land acquisition costs³⁴.** Such costs can run into multiple millions of dollars for large-scale projects. In addition, according to Fischer and Nhabinde (2012), the law further stipulates that in the case of projects that are “welfare increasing” but not privately profitable, the government is allowed to provide subsidies or guarantees, or to facilitate access to multilateral agencies or donor countries.³⁵ The government can grant guarantees on loans, minimum revenue, and balance sheet guarantees.³⁶

Even though “these guarantees or subsidies should be registered by the Finance Ministry, which should track both the individual and global level of these commitments, and include them in the accounts,”³⁷ in the course of gathering information for this assessment, no project-specific disclosure of such information was available from the government. There was also no information disclosed on the government’s compensation for project preparation costs or land acquisition costs.

The IMF’s December 2014 evaluation on fiscal transparency for Mozambique noted that: “the strategy and oversight on public sector’s other financial debts, such as leases and public-private partnerships (PPPs), which are arrangements that typically involve commitments similar to borrowing, and on financing guarantees, is unclear.”³⁸ The IMF’s assessment further determined that due to the limited availability of information, it is difficult to quantify Mozambique’s gross exposure arising from guarantees granted.³⁹ This further heightens concerns regarding Mozambique’s public debt sustainability.

Upcoming PPP Projects

Table 2 provides a summary of upcoming PPP projects as reported in 2015 and 2016, which stand to benefit from

the investment incentives, i.e. subsidies, provided in the new PPP, Mega Projects and Concessions Law. Upcoming PPP projects are dominated by coal infrastructure, both associated transportation aimed at significantly increasing coal exports and coal power plants – power from which will be partially used to mine more coal.

According to the IMF, “foreign direct investment for Mega Projects [including PPP projects in Table 2 of \$500 million and above] has come to a halt—halving during the first semester of 2015—with finalization of key production agreements between the government and concessionaires taking longer than expected previously, delaying investments in coal infrastructure and in LNG processing facilities.”⁴⁰ The IMF goes on to say that “in the coal sector, agreements need to be reached to unlock financing for the completion of the Nacala rail corridor, which would triple coal export volumes by 2017. In the latter part of October 2015, negotiations between the government and investors [of the coal and gas infrastructure] were in full swing.”⁴¹ It should be noted that the October 2015 progress regarding government negotiations on these coal and gas infrastructure projects has taken place post DPF-supported new PPP, Mega Projects and Concessions Law and post DPF-supported new Mining Tax Law and new Petroleum Tax Law (see below for details).

Table 2. Upcoming PPP Infrastructure Projects in Mozambique

Project	Stage	Sector	Cost (million USD)	Sponsors
175 MW Ressano Garcia Gas-Fired Plant	Transaction No Financial close as of July 2016 \$52 million loan to EdM from AFD. ⁴²	Energy – Gas	\$270	EdM (Mozambique) Sasol (South Africa)
Nacala Corridor Railway and Port Project (see Box 1)	Transaction IFC expects approval of \$2.7 billion debt refinancing early in 2017	Transport - Coal	\$4,400	Vale SA (Brazil) Mitsui (Japan) CfM (Mozambique)
Moatize-Macuse Port and Railway Project	Transaction Finance not yet obtained.	Transport - Coal	\$4,500	Italthai Engineering Limited (Thailand) CfM (Mozambique) Codiza (Mozambique)
300 MW Ncondezi Coal-Fired Plant	Structuring; Expected financial close 2017	Energy – Coal	\$600	Ncondezi (Mozambique) Shanghai Electric Company (China)
600 MW Moatize Coal Fired Power Plant (see Box 1)	Structuring; No financial close; seeking finance and guarantees	Energy – Coal	\$1,000	ACWA Power (Saudi Arabia) (IFC financial intermediary) Mitsui & Co (Japan) Vale SA (Brazil) Whatana Investment Group (Mozambique) EdM (Mozambique)
Beira Port Coal Terminal	Structuring;	Transport – Coal	\$25	Essar Group (India) CfM (Mozambique)
Mphanda Nkuwa Hydropower Zambezi River	Structuring;	Energy – Hydropower	\$2,900	Insitec (Mozambique) EdM (Mozambique)
180 MW Jindal Coal Power Plant	Seeking finance	Energy – Coal		Jindal Group (India) EdM (Mozambique)
200 MW ICVL Coal Power Plant	Seeking finance	Energy – Coal		ICVL (India) EdM (Mozambique)

Sources: *IJ Global*, 2015 as quoted in *DFID*, 2015⁴³; *World Coal*, 2016⁴⁴; and *CP Africa*, 2016⁴⁵.

Note: Bold indicates government entity's participation in the project and Mega Project status when project cost is bold.

Box 1. World Bank-supported Subsidies to Mega Moatize Coal Mine and Coal Power Plant

The Vale-operated Moatize Coal Mine in Mozambique is the fourth largest coal mine in the world with 954 million tonnes of coal. According to Vale, first phase production at the mine started in 2011 with plans to produce 11 million tonnes per annum (mtpa) for the next 35 years. Phase II involved expansion of the mine to ultimately produce 22 mtpa.

The financial viability of the mega mining project is heavily dependent on its ability to export the coal, which depends on railway and port capacity. As such, Vale is also invested in the Biera-Sena railway, which received \$110 million from the World Bank for partial rehabilitation (see Table 1); and the Nacala Rail Corridor project. The 912-kilometre long Nacala corridor is expected to have a transport capacity of 18 million tons of coal per year.⁴⁷ The Nacala Rail Corridor project is a PPP project between Vale (30%), Mitsui of Japan (50%), and Mozambique's state rail and port company, CFM (20%).⁴⁸ CFM reported a \$500 million loan for its participation in the Nacala Rail Corridor from the governments of Netherlands, Denmark and the European Union.⁴⁹

The bankability of the coal transport projects that are being used to export the Moatize coal are dependent on the international price of coal, which has recently been at low levels and has therefore limited the extent to which these projects can attract financing.⁵⁰ The new PPP legal framework supported by the World Bank DPF operations contributes to efforts to attract financing to this project. In addition, International Finance Corporation (IFC), the private sector arm of the World Bank Group, is currently proposing a \$2.7 billion debt refinancing for the Nacala Rail Corridor.⁵¹ IFC finance is subsidized finance with longer tenure terms than commercial finance.

In addition, Vale is a small holder along with ACWA Power of Saudi Arabia in the proposed 600 MW Moatize Coal Power Plant project. This PPP project is 56.5% held by ACWA, 8% by Whatana Investment Group of Mozambique, and 5% by Electricidade de Mozambique (EDM), the Mozambique state power utility, with the balance held by Vale and Mitsui.⁵² Of the power output, 80% would be used by Vale to power the mine for more coal and 20% is currently slated for EDM, although a power purchase agreement remains to be finalized.⁵³

The Moatize Coal Power Plant project is trying to raise funding, more than \$500 million, from various export credit agencies and multilateral development financing agencies.⁵⁴ The project's bankability stands to benefit from the new PPP legal framework, which stipulates that in the case of projects that are "welfare increasing" but not privately profitable, the government is allowed to provide subsidies or guarantees, or to facilitate access to multilateral agencies or donor countries.⁵⁵ Additionally, it will benefit from the Bank DPF-supported new Mining Tax Code that provides subsidized coal for domestic operations (see details under New Mining Law below).

In December 2013, the US government voted against an IFC proposed \$100 million equity investment in ACWA Power. Although, the US stated its appreciation of the company's efforts to expand its renewable energy portfolio, the US argued that it was *"troubled by the greenfield coal projects that make up part of the company's portfolio and proposed pipeline. Despite IFC's efforts to ring-fence its financing, the United States is not convinced that an equity investment can preclude support for specific projects within the company's portfolio because money is fungible."*⁵⁶ At the time, the ACWA planned greenfield coal projects included, *inter alia*, the Moatize coal power plant and a 450 MW coal power plant in South Africa.

The US further stated that "To prevent IFC funds from supporting coal projects, the United States would have preferred that the IFC take a different investment approach to support ACWA's renewables projects while avoiding the association with the coal projects altogether, perhaps by investing directly in specific [renewable] projects..." Despite the concerns raised by the US government, IFC's ACWA Power project was approved.

According to the World Bank, lagging coal transport infrastructure development has been a major bottleneck to increasing Mozambique's coal production.⁴⁶ The new PPP legal framework promoted by the World Bank was seen as a major part of the answer to solving this coal infrastructure barrier. In the last few years, coal related PPP infrastructure projects, including the Nacala Rail Corridor, have had difficulty securing finance due to low coal prices (see Box 1 for details). The economics of producing and transporting Mozambican coal under the current low price scenario is unfavorable. Hence, **the World Bank's DPF-supported policy reforms stand to prop up otherwise uneconomic coal projects with subsidies.**

PPP Coal Plants in Tete Province: As shown in table 2, there are at least four proposed coal power plant projects that stand to benefit from the World Bank DPF-supported policy reforms, including the PPP, Mega Projects and Concessions Law and the new Mining Tax Law (see details below). All of these power plants are located in the coal-producing Tete Province and as such a significant portion of the power produced will go back into mining more coal. In the case of the Moatize Coal Power Plant, 80% of the power produced would be used by Vale to power the mine.⁵⁷ The Moatize Coal Plant was approved in 2014, but it is still seeking finance and the new Mining Tax Law now provides subsidized coal for the plant (see details below).⁵⁸

The World Bank's DPF-supported policy reforms stand to prop up otherwise uneconomic coal projects with subsidies.

Inadequate Strategy for Energy Sector Development – Lacking Energy Access for the Poor: According to an OECD assessment of investment policies in Mozambique,⁵⁹ “the national approach to energy infrastructure development is insufficiently coherent, as catering to export and extractive industry needs conflicts with the supply of electricity to the domestic population.” Only 26% of Mozambicans have access to electricity, while the global average is 80%.⁶⁰ There is a growing gap between domestic energy demand and existing supply, which is exacerbated by the rapid expansion of the energy-intensive extractive industry sector.⁶¹

One of the most pressing challenges is Mozambique's power transmission within the country. Due to a poor national power grid and inefficient connectivity within the country, much of Mozambique's current power capacity is actually exported to South Africa and then re-imported back into the country at higher prices.⁶² EDM, Mozambique's state electric utility, pays the equivalent of about R0.36/kilowatt hour for power from Cahora Bassa (domestic hydro power plant), R1.48/kWh from Aggreko's interim gas-fired power station (domestic) and R2.48/kWh from Eskom, the South African state utility. But on average EDM sells power to its customers at R0.79/kWh. For comparison, Eskom's tariff in South Africa is R0.71/kWh.⁶³

Mozambique's largest source of power comes from the Cahora Bassa hydro power plant (2,075 MW). It is also Mozambique's cheapest power source but because of poor domestic transmission lines, 80-90% of the Cahora Bassa hydro power reaches Southern Mozambique via South African transmission lines.⁶⁴ A new transmission backbone line is being planned, however it is still at early stages.⁶⁵

The World Bank's policy lending with its concentration on PPPs, Mega projects and legal frameworks for coal, oil and gas is at the expense of local infrastructure, especially for rural communities, and does not address the low energy access rates of the poor.

Mega Projects

According to the World Bank, the majority of current and forecasted mega-project investments in Mozambique are in the natural resources sectors – investment size-wise dominated by natural gas production and transmission (i.e., pipelines), mining and mineral processing.⁶⁶ Table 3 provides a partial list of Mega-Projects that were under consideration during the time period that the World Bank's PRSC 7-8 programs supported the new PPP, Mega Projects, and Concessions Law.

There is evidence that at least one coal project is benefiting from incentives provided by the World Bank-supported

PPP, Mega Projects and Concessions Law. In April 2013, Platts reported that Beacon Hill Resources, which owns and operates the Minas Moatize coal mine, had reached an agreement with the Mozambican government “allowing the government a 5% equity stake in the Minas Moatize coking coal project and giving it the option to acquire another 10% interest at fair market price.”⁶⁷

The company stated that in April 2013, it had signed a mining contract with the government which would “enhance the stability of the fiscal and regulatory environment for a period of 25 years.”⁶⁸ This potentially indicates the extension of government guarantees. In addition, Beacon Hill Resources reported that it had negotiated a rail access agreement with CFM to receive 500,000 mt/year rail capacity on the Sena railway to the Beira Port [which was partially rehabilitated with World Bank subsidized financing (see Table 1)].⁶⁹

Table 3. Mega-Projects Under Consideration during PRSC 7-8 Programs

Project/Company	Sector	Location	Capacity/Reserves	Planned Construction	Planned Production
Mphanda Nkuwa	Electricity, Hydropower	Zambesi River, Tete	1,500 MW	2014–18	2018
Anadarko (US)	Natural gas	Rovuma basin	10 million tons/year	2014–19	2020
ENI (Italy)	Natural gas	Rovuma basin	10 million tons/year	2014–19	2020
Statoil (Norway)	Natural gas	Rovuma basin			
PETRONAS (Malaysia)	Natural gas	Rovuma basin			
Minas de Revuboe	Coal	Revuboe, Tete	5 million tons/year	2013–15	2016
Ncondezi (integrated mine and power plant)	Coal and thermal power	Tete	1.2 million tons per year / 300 MW	2015-16	2016 (mine), 2017 (power plant)
Baobab Resources	Iron Ore	Tenge/Ruoni deposit, Tete	725 million tons		
ENRC - Coal transport logistics	Coal Railway Line	Tete	40 million tons/year	2014-15	2016
ENRC - Coal Mines	Coal	Tete	20 million tons/year	2014-15	2016
AYR Petro-Nacala	Oil Refinery and Pipeline	Nacala-a-Velha	300,000 barrels per day (bpd)	forthcoming	
Oilmoz	Oil Refinery		350,000 bpd		2018

Sources: IMF, 2014⁷⁰; Oil Review Africa, 2013⁷¹; and Oil and Gas Year, 2013⁷²

DPF Operations: Poverty Reduction Support Credits 9, 10 and 11

The World Bank’s current PRSC series in Mozambique totaling \$290 million began in July 2013 with PRSC-9 and closes in December 2016 with PRSC-11. In 2013, KPMG reported that Mozambique is expected to be a key driver of global coal production going forward, [potentially] reaching coal output of 41.8 million tons by 2017 from 6.3 million tons in 2011.⁷³ The majority of this coal is destined for export, which could make Mozambique one of the top 10 largest coal exporters in the world.⁷⁴ The World Bank’s PRSC 9-10 series intends to assist Mozambique to realize this coal potential.

Furthermore, the PRSC-9 Program Document indicates that a “Mining and Gas Technical Assistance Project (MAGTAP), approved by the Board on March 2013, will further the goals of the proposed PRSC by building the administrative and oversight capacity of the government with respect to the natural-resource sector. The MAGTAP’s project document indicates that amongst the donor community, the World Bank took the lead in the design of [mining and hydrocarbon] sector support and policy advice as well as in the provision of funding and supervision, in close collaboration with other development partners active in the mining and petroleum sectors.”⁷⁵

Table 4 lists the Prior Actions in the extractive industries required by PRSC 9, 10 and 11. Although Bank actions supporting improved transparency are very welcome, this paper’s focus is on investment incentives, which are contained in the new Fiscal Regimes supported by the PRSC series.

Table 4. World Bank Prior Actions of PRSC 9-11 Involving Extractive Industries

PRSC-9 Prior Actions	PRSC 10 Prior Actions	PRSC 11 Prior Actions
Improved Transparency in Extractive Industries		
Mozambique has achieved compliance with the standards of the Extractive Industries Transparency Initiative (EITI).		Mozambique has achieved compliance with the new and revised standards of the Extractive Industries Transparency Initiative (as approved on May 2013).
The Council of Ministers has approved the draft Mining Law and has sent it to its National Assembly for approval.	The Indicative Trigger from PRSC-9 stated: The Council of Ministers approves the draft legislation for the new Fiscal Regime in Mining and sends it to the National Assembly for approval. However, PRSC 10 stated: “Prior action not included due to [World Bank] reservations about potential fiscal pressures on investors [contained in the draft law].	The Council of Ministers has approved the implementing regulations for Law No. 20/2014 dated 18 August 2014 published in the <i>Boletim da República</i> No. 66 Serie I on 18 August 2014 (the Mining Law)
The Council of Ministers has approved the draft Petroleum Law and has sent it to its National Assembly for approval.	The Council of Ministers has approved the bill defining the fiscal regime for the hydrocarbon sector [the Petroleum Tax Law] and has submitted the bill to its National Assembly for approval.	The Council of Ministers has approved the implementing regulations for Law No. 21/2014 dated 18 August 2014 published in the <i>Boletim da República</i> No. 66 Serie I on 18 August 2014 [the Petroleum Law]
The State Budget for 2013 has allocated 2.75 percent of revenues generated by extractive industries to districts for infrastructure development of communities in which the extractive industries operate.	Preliminary assessment of the transfer program for 2013 and continuation of the program for the State Budget for 2014.	The Ministry of Economy and Finance (MEF) has revised the system by which it transfers a share of the production taxes generated by mining and petroleum projects to communities in affected areas by budgeting a share of the royalties collected during calendar year 2014.

Source: World Bank Program Documents for PRSC-9, PRSC-10 and PRSC-11.

Coal Subsidies contained in the New Fiscal Regime in Mining

According to the OECD, Mozambique’s extractive industries have long remained largely exempt from taxation (especially at the exploration phase).⁷⁶ The previous Mining Law and Regulations have been in place since 2002 and 2006, respectively, and were supported by the World Bank’s technical assistance program between 2001 and 2007 (see Table 1 above). PRSC-9, -10, and -11 included Prior Actions and Indicative Triggers requiring the adoption of a new Mining Law and a new Fiscal Regime for Mining or new Mining Tax Law (see Table 3 above).

On September 23, 2014, the Mozambique Government enacted Law No. 28/2014, the new Mining Tax Law, which entered into force January 1, 2015.⁷⁷ The World Bank originally intended for the new Mining Tax Law to be a Prior Action for PRSC 10. However, the Bank was concerned that limits to tax deductions, inter alia, could potentially discourage investments, especially in coal projects (see Box 2). As such, the Bank removed the Prior Action from the PRSC 10 operation and indicated that if coal investments were deterred, the Bank’s PRSC series could support another revision to the law.

Box 2. World Bank Pushes for More Incentives for Coal Mining Investment

World Bank PRSC-10 Program Document, Paragraph 47: **“There are concerns that the approved Fiscal Regime for Mining may impose an excessively high burden on potential investors and discourage investment.** The revised fiscal regime specifies that royalties are to be paid on resources extracted rather than resources sold. The regime does not allow royalties to be deducted from corporate income tax liability. Both of these elements could result in excessive fiscal pressure in the mining sector and as a result lower investment. These provisions are not in line with those in the fiscal regimes of many other mining countries, including Brazil, Ghana, Indonesia, Peru and South Africa. Other expenditures such as Corporate Social Responsibility and resource rent taxes cannot be deducted either from corporate income tax liability, further increasing the burden on investors. The Government must continuously balance the interests of investors and the public interest, as this legislation tries to do. The Government will have a new bidding round for coal mining in the near future, to be governed by the new sector law and fiscal regime. This bidding round will be a good opportunity to test whether the new regulatory framework strikes the right balance between investors’ and the public’s interests. **If the new regulatory framework deters further investment in the sector, particularly at a time of relatively low coal prices, a further revision of the legislation may be needed and the ongoing [PRSC] series could support such a revision.** In light of these limitations, the new fiscal regime was not included among the actions supported by this operation while the policy dialogue continues.”

The Bank’s language in Box 2 clearly indicates that the Bank was pushing for more favorable fiscal terms for coal investments. This indicates that the Bank was in support of the investment incentives contained in the new law, including:

Low Royalty for Coal - The new Mining Tax Law stipulates payment of a Mining Production Tax or royalty when a mineral is extracted. The applicable tax rates are 8% for diamonds, 6% for precious and semi-precious stones or metals and heavy sands, and 3% for coal and base metals, based on the value of the mineral. The government’s original draft law had set the Mining Production Tax for coal at 5%, which is within the typical range globally.⁷⁸ Given the World Bank’s push for favorable terms for investors, it may have swayed the government to go with the lower royalty for coal.

Subsidized Coal for Coal Power Plants - A tax reduction of 50% of the Mining Production Tax is allowed when the production of minerals is to be used by the local industry.⁷⁹ This means that coal plants in Mozambique will get subsidized coal even if the electricity they produce is exported or if it is used predominantly to mine more coal, which is the case for several proposed coal power plants in Tete Province (see PPP Coal Plants in Tete Province above).

Custom Duties Exemptions – The new Mining Tax Law grants exemptions from custom duties for a period of five fiscal years, in relation to the importation of capital and goods.⁸⁰ Mozambique’s general tax code levies 20% for Customs Duties.⁸¹ Thus, this is a substantial subsidy. Note that the new law no longer grants Value Added Tax exemptions on the import of the same goods, which is a step in the right direction.⁸²

Tax Stabilization Guarantee – The new tax regime provides tax stability for a period of up to 10 years. This period may be extended up to the end of the initial concession period, by means of the payment of an additional 2% to the oil production tax (royalty), from the eleventh year of production.⁸³ This was noted as a concern of civil society organizations within the PRSC-9 Program Document. In addition, UNCTAD recommended eliminating the tax stabilization.⁸⁴ One of the major provisions of the World Bank-backed 2002 Mining Law in Mozambique was a tax stability guarantee (Article 33), under which the fiscal regime applicable at the time the mining license is issued cannot be altered, unless it is to the benefit of the investor.⁸⁵

Subsidies contained in New Petroleum Tax Law

In 2013, prior to the approval of PRSC 9, the World Bank noted that “initial projected investments, announced by two private sector concession holders-Anadarko (US) and ENI (Italy), both seeking to process natural gas as

Liquefied Natural Gas (LNG) for export markets-amount to US\$70 billion. Gas production could start as early as 2018.⁸⁶ In support of these potential natural gas investments, which as of April 2016 still had not been finalized, PRSC-9, -10, and -11 included Prior Actions regarding the drafting and adoption of a new Petroleum Law and associated Regulations and a new Fiscal Regime in Petroleum (see Table 3 above).

The new Petroleum Tax Law was approved in 2014 and entered into force on January 1, 2015. It should be noted that even though the Law is translated from Portuguese as Petroleum Tax Law, it applies to hydrocarbons, i.e., oil and gas. Apparently satisfied with the new fiscal regime for hydrocarbons, the World Bank left the Prior Action on adopting the new Petroleum Tax Law in PRSC-10. Investment incentives include:

Subsidized Oil and Gas for Domestic Consumption – Petroleum Production Tax (or Royalty) arises when oil or gas is extracted, and the applicable tax rates are 10% for crude oil and 6% for natural gas based on their market value. A change introduced by the new law is a reduction of 50% of the Petroleum Production Tax when the oil and gas in question is destined to be used by the local industry.⁸⁷

Custom Duties Exemption – The new law incorporates the previous exemption from custom duties for a period of five fiscal years, in particular on the import of capital goods to be used in petroleum or gas operations, but it no longer grants a VAT exemption on the import of these goods.⁸⁸

VAT Exemption for Exploration – The rendering of services related to exploration, drilling and construction of infrastructure to oil and gas companies in the exploration phase are exempt from VAT.⁸⁹ Exports are exempt from VAT (and customs duties). This represents a substantial subsidy. VAT is levied on the sale of goods and the rendering of services, and on imports, at a rate of 17%. VAT has become the most important source of fiscal revenue for the government, representing almost half of total taxes and duties in 2009⁹⁰ and 40% of all government revenue collected in 2015.⁹¹

Hyper Accelerated Rate of Depreciation for Exploration – The new Petroleum Tax Law provides subsidies in the form of foregone government revenue afforded by greatly higher rates of depreciation for oil and gas exploration and acquisition of petroleum rights. The new Petroleum Tax Law allows for expenses to be depreciated on a straight-line basis at the following rates:⁹²

- Expenses with exploration and appraisal – 100%
- Expenses with development – 25%
- Petroleum production assets – 20%
- Acquisition of petroleum rights – 10%
- Other assets – 10%.

The new Petroleum Tax Law's Depreciation rates for the oil and gas sector are an incentive for oil and gas investment as they are more favourable than the allowances of the general tax code. While the rates for development and production assets appear to be comparable to Mozambique's general tax code, although at the upper end, the rates for oil and gas rights acquisition at 10% are much higher compared to the general tax code at 5% (according to the asset category of "Manufacturing licenses, concessionaire agreements, and similar rights" of the general tax code.⁹³

The one that stands out above the rest is for exploration expenses. The new law allows oil and gas companies to immediately deduct 100 percent of their capital expenditures against taxable income for spending on exploration and appraisal. Couple this with the fact that Mozambique allows for losses to be carried forward for a period of five consecutive years⁹⁴ and this translates into the potential for large scale oil and gas development projects paying very little or no taxes for multiple years. A World Bank analysis of a similar policy on accelerated depreciation in South Africa determined that it was a substantial subsidy to the mining sector.⁹⁵

Mozambique does allow for an accelerated rate of depreciation in the general tax code, but the most it can be

accelerated is up to 50 percent and must be approved by the government. Examples include: new immovable assets used for the furtherance of the business, and rehabilitated immovable assets (e.g., machinery and equipment) used in agro-industrial activities.⁹⁶

Even with the current low international oil and gas prices, the new Mozambique subsidies for oil and gas exploration have attracted at least one new investment. In September 2016, United States-based private equity firm Warburg Pincus announced it plans to invest at least US\$100 million in Delonex Energy Mozambique oil exploration in southern Mozambique with plans to start operations in 2017.⁹⁷

World Bank Undermines 2°C Climate Goal. The Intergovernmental Panel on Climate Change (IPCC) has determined that in order to meet the internationally agreed goal of limiting global average temperature increase to 2 degrees Celsius, at least two-thirds of already existing reserves of fossil fuels need to be left in the ground. Thus, the World Bank PRSC-support for oil and gas exploration subsidies directly undermines preventing the worst impacts of climate change.

Tax Stabilization Guarantees – The new tax regime provides tax stability for a period of 10 years. This period may be extended up to the end of the initial concession period, by means of the payment of an additional 2% to the oil production tax (royalty), from the eleventh year of production. This was noted as a concern of civil society organizations within the PRSC-9 Program Document. In addition, UNCTAD recommended eliminating the tax stabilization clause.⁹⁸

Lacking Support for Renewable Energy

Mozambique has great potential to develop several forms of renewable energy. Although little data has been collected on potential climate-smart renewable sources, preliminary data suggests significant solar, wind and geothermal resources.⁹⁹ It is also important to note that in a drought-prone country and climate constrained environment, large hydropower projects are not considered to be a climate-resistant/-smart development choice.¹⁰⁰

According to a 2013 assessment of investment incentives for renewable energy in Mozambique by IISD, typically, renewable energy projects do not qualify for tax benefits afforded by the new PPP, Mega-Projects, and Concessions Law.¹⁰¹ Thus far, only a few Mega-sized biofuel projects have been large enough to qualify for such tax incentives and large hydropower projects are the only PPP projects so far.¹⁰² However, both of these power resources have potentially significant climate change risks as well as other social and environmental risks associated with them.

Box 3. The World Bank's Climate Change Development Policy Operation in Mozambique:

Risks posed by Coal and Hydrocarbon Investments

The World Bank has two Climate Change DPOs totalling \$100 million covering the periods from January 2013 to June 2013 and December 2014 to June 2015, respectively. Although these DPOs are focused on climate resilience, they also support two important climate mitigation measures regarding climate-smart agriculture and incentives for renewable energy. A Prior Action of DPO2 includes: The Council of Ministers established a Renewable Energy Feed in Tariff (REFIT) mechanism to encourage private sector investment to boost medium-term energy supply and access from renewables.

The World Bank's Program Document for DPO2 warns of risks involved in large-scale coal and gas investments¹⁰³:

The increasing dependence on natural resource exports leaves Mozambique's economy vulnerable to declining export demand, volatile commodity prices and tighter global financial conditions. Weaker international commodity markets could affect large-scale investments planned for the coal and gas sectors, such as the currently low coal prices which seem to have affected investment plans by coal producers. In light of these risks, both the public and private sectors in Mozambique should avoid excessive leveraging backed by future rents from natural resources.

The World Bank's Second Climate Change Development Policy Operation for Mozambique included incentives for renewable energy by establishing a Renewable Energy Feed in Tariff (see Box 3). However, it appears that solar, wind and geothermal power does not have existing legal frameworks comparable to the ones supported by the World Bank for mining and hydrocarbons. The World Bank's current PRSC series does not provide any Prior Actions related to climate-smart renewable energy sources or decentralized/distributive energy systems – all of which often represent a more cost effective means over large fossil fuel projects to reach the rural poor communities. The policy reforms supported by the World Bank PRSC-DPF operations put renewable energy investments at a disadvantage compared to incentives available to oil, gas and coal projects.

World Bank's Support for Fossil Fuels not Good for Poverty Reduction

Research from the Overseas Development Institute (2012) found that "economic growth in Mozambique during the last 15 or more years has been based too narrowly on minerals and energy to create enough jobs to reduce poverty, especially amongst the majority of the rural poor who are small farmers."¹⁰⁴

The policy reforms supported by the World Bank PRSC-DPF operations put renewable energy investments at a disadvantage compared to incentives available to oil, gas and coal projects.

A 2013 OECD analysis¹⁰⁵ found that: "Infrastructure demand from large-scale consumers and export markets takes precedence over domestic needs."¹⁰⁶ Electricity and transport infrastructure have traditionally served the needs of mega-projects and of consumers abroad.¹⁰⁷ To meet the anticipated mining and exports boom, large investors are now looking to develop their supporting infrastructure. These investments by mining and other companies present significant network expansion opportunities, but may bring few benefits for the local population if operated as enclaves.¹⁰⁸

In addition, the OECD found that the long-term effects of the 'mega-project' approach to poverty reduction have not been clearly demonstrated. Although large-scale projects in mining, oil and gas have certainly triggered investments in terms of energy generation and transport, the ultimate impact on employment and social development has been limited.¹⁰⁹

Lastly, the World Bank's own PRSC 8 program document stated: "Despite very high rates of economic growth poverty remains high and poverty reduction has slowed down in the recent past. The poverty headcount fell from 69 percent in 1996/97 to 54 percent in 2002/03. While subject to some methodological caveats, the 2008/09 household survey data indicate that the poverty rate has remained high at about 54 percent, **with rural poverty actually increasing to 57 percent**. While the food and fuel crisis of 2008/09 played a role in this outcome, the limited progress in poverty reduction while the economy continued to grow at substantially high rates suggests that growth has become less inclusive than in previous years.

Given this evidence, it is unclear why the World Bank's current Poverty Reduction Support Credits focus on legal frameworks to enable the development of coal and gas mega-projects instead of projects specifically aimed at addressing poverty – such as decentralized electricity projects using climate-smart renewable energy sources.

DPF Climate Change Risk Assessment

The World Bank's environmental review for both PRSC series concluded that the reforms supported in this PRSC series are not likely to have significant positive or negative effects on the environment, forest and other natural resources. Even though the Bank did recognize that there could be increasing exports, including mining, energy and forestry. Increasing exports of any of these sectors could have effects on the environment and forestry. However, the Bank dismisses such potential effects and claims that "Although the increase in economic activity that may result from the successful implementation of the proposed PRSC may have environmental effects, the domestic legal framework and regulatory mechanisms are judged to be fundamentally adequate to address them."

PRSC series 9-11 states that: “Acknowledging potential environmental impact from the growing investment mainly in extractive industries, the Bank, through the Mining and Gas Technical Assistance Project (MGTAP), will enhance Environmental and Social Management of Mining and Natural Gas Industries through: (a) carrying out and implementing Strategic Environment and Social Assessment (SESA) for mining and gas sectors; (b) updating relevant regulations that affect the sector, including involuntary resettlement, (c) increasing Recipient’s capacity to manage EIAs and Social Impact Assessments (SIAs) and to address disputes/grievances, and (d) setting up robust monitoring systems for EIAs and SIAs.”

Inadequate Consideration of Climate Change Risks: There is no recognition of the PRSC’s promotion of carbon intensive investment incentives vs. low-carbon incentives. Given that the PRSC series’ Prior Actions involve new legal frameworks including PPP, Mega Projects and Concessions Law, Mining Tax Law, and Petroleum Tax Law, which promote and subsidize coal and hydrocarbon projects in Mozambique, it seems logical that the World Bank should have specifically assessed the associated risks of substantial increases in GHG emissions against the 2 degree goal. At the very least, the Bank needs to recognize that subsidizing oil and gas exploration and new coal power plants undermine the 2 degree goal.

Inadequate Consideration of Deforestation Risks: The Bank did not adequately consider potential deforestation risks of policy reforms promoted by the PRSCs. As previously mentioned, Mozambique’s largest source of GHG emissions stem from deforestation. Tete province is at the forefront of **Mozambique’s growing deforestation crisis**.¹¹⁰ The two leading economic activities in Tete are agriculture and coal mining – both putting pressure on forest cover.

Coal mining concessions and exploration licenses approved by the government cover around 3.4 million hectares (34% of Tete province’s area).¹¹¹ When licenses pending approval are included, around 60% of the province’s area is covered, representing a project area of around six million hectares of land.¹¹² Coal mining poses a double threat to forest cover. Not only do the large scale open pit mines completely destroy any standing forest, but mines also relocate local farming communities, which results in further land clearance to establish new farms. For example, Vale’s Moatize coal mine displaced approximately 5,000 landowners most of which were farmers.¹¹³

Potentially further exacerbating pressures on forests, PRSC-6 supported implementation of existing land law towards facilitating access to land, which included systematic delimitation of all community lands in rural areas; comprehensive rural zoning/land use planning to support Mozambique’s development potential. According to the World Bank, the October 2007 revised Article 35 of the Land Law suggests that Communities are now subject to the same 3-tier approval system of development plans as investors. These measures pose risks to tenure rights for local communities.

In order to mitigate negative pressures on forests and achieve meaningful low-carbon development, it is vital to strengthen Mozambique’s forest governance, both inside and outside the forestry sector, and support the promotion of secure tenure rights for local communities so that they are not pushed off their land to make way for mining concessions.

Main Findings

The Mozambique case demonstrates how critical it is to get the investment and economic incentives right to foster low-carbon development. Unfortunately, the World Bank did not get the incentives right for Mozambique. Instead of assisting Mozambique onto a low-carbon development path, by all accounts the World Bank’s current policy lending through the PRSC series is supporting Mozambique to develop fossil fuels to the fullest extent through legal frameworks that enable and subsidize mega-scale coal, oil and gas projects.

In addition, the Bank’s environmental assessment of the PRSCs did not adequately consider climate change risks

or risks to forests. As such, the World Bank DPF-supported reforms include, *inter alia*:

Subsidies for Coal – The World Bank PRSC-9 stipulated a new Mining Tax Law. Even though the new law provided subsidized coal to coal power plants and custom duty exemptions for coal mining, **the Bank’s PRSC-10 program document stated concern regarding limited tax deductions for mining and further specified: “If the new regulatory framework deters further investment in the sector, particularly at a time of relatively low coal prices, a further revision of the legislation may be needed and the ongoing [PRSC] series could support such a revision.”** In addition, the Bank-supported new Public Private Partnership, Mega Projects and Concessions Law provides subsidies to coal projects (e.g., power plants, railways, and ports), including project preparation costs, land acquisition costs, and potential government finance and guarantees. All of these subsidies stand to prop up the coal sector instead of allowing the current low international prices for coal to reduce such investments.

Subsidies for Oil and Gas Exploration – The World Bank-supported new Petroleum Tax Law (which applies to oil and gas) provides substantial subsidies to oil and gas exploration, including hyper-accelerated rate of depreciation coupled with loss carry forward allowance of 5 consecutive years, and VAT exemptions. These subsidies directly undermine the Bank’s stated commitment to the 2°C goal as the world already cannot burn two-thirds of existing reserves of fossil fuels in order to remain below 2°C warming.

Lack of Energy Access for the Poor – The World Bank-supported policy reforms cater to export projects and extractive industry needs and as such undermine the supply of electricity to the domestic population. Proposed coal power plants, which benefit from World Bank-supported reforms, are slated to power more coal mining and provide some power to the existing power grid. However, Mozambique suffers from a lack of adequate transmission lines to carry the power to poor communities. There is no indication that the energy infrastructure supported by the Bank’s DPFs will provide access to poor Mozambicans any time soon.

Inadequate Support for Renewable Energy – Mozambique has potentially significant solar, wind and geothermal resources.¹¹⁴ The World Bank’s Second Climate Change Development Policy Operation included the establishment of a Renewable Energy Feed in Tariff. However, the World Bank’s current PRSC series does not provide any Prior Actions related to climate-smart renewable energy or decentralized/distributive power systems, which could serve poor communities. Moreover, the policy reforms supported by the World Bank PRSC-DPF operations put Renewable Energy investments at a disadvantage due to the oil, gas and coal incentives/subsidies contained within the Prior Actions of these DPF operations.

Heightened Deforestation Risks – The World Bank-supported policy reforms specifically aim to increase investments in coal mining. Tete Province is at the forefront of both Mozambique’s coal mining boom and deforestation crisis. Coal mining concessions and exploration licenses approved and pending approval by the government cover around 60% of the province’s area, representing around six million hectares of land.¹¹⁵ The large-scale open pit mines also relocate farming communities, which causes further land clearance to establish new farms.

Recommendations

World Bank development policy finance represents a crucial opportunity to re-orient countries onto a low-carbon development path and better protect climate vulnerable poor communities. Given Mozambique is one of the most climate-vulnerable countries in the world; the Bank must heed its own advice on confronting climate change by providing the right incentives for a clear pathway to low-carbon development for Mozambique. To this end, the World Bank should adopt:

1. **Robust Climate Change Assessment for DPFs – Does it pass the 2 degree test?** The Mozambique case demonstrates how critical it is to fully assess and adequately address the climate risks associated with reforms contained in Development Policy Finance. Such operations reach far beyond the impacts of project investments and yet they are not adequately assessed by any Bank operational policy. The Bank should revise

Operational Policy 8.60 on Development Policy Lending to ensure adequate assessment and mitigation of climate risks, including risks to forests.¹¹⁶

Overall, the DPF operation must be assessed against the World Bank's commitment to the globally-agreed goal of limiting temperature rise to 2°C. Thus, does the DPF operation support policy reforms that put the country on a 2 degree development path (based on 2 t/CO₂ emissions per capita) by 2030? This does not mean simply supporting renewable energy but also limiting/reducing fossil fuels to the necessary country level to not exceed 2 degrees warming.

To begin, a DPF climate risk assessment needs to include an assessment of:

- All DPF policy and institutional reforms and all corresponding measures and incentives (not just a selected sub-set) embodied within a new policy or institution.
 - How DPF reforms will change the overall carbon-intensity direction of targeted sectors, including current government sector medium-term strategies. Do they pass the 2 degree test?
 - The government's planned projects associated with the DPF operation: carbon intensive vs. low carbon projects; and projects involving both direct and indirect drivers of deforestation.
 - The risks embodied by policy/institutional reforms that are not explicitly part of the DPF-specified reforms but took place leading up to the DPF and/or have shared objective(s), such as promoting infrastructure investment or expediting land acquisition.
 - Whether the DPF reforms will enhance or undermine the governance capacity of key ministries regarding social and environmental safeguards, including forest protection.
 - Whether any DPF changes to land acquisition or investment laws will weaken or strengthen the land tenure and forest resource security of forest-dependent peoples.
 - Whether the DPF will strengthen or weaken the implementation of laws relating to forest protection, including international commitments regarding forest conservation.
2. **Improved DPF Transparency** – It is very difficult to understand the specific reforms and government actions supported by the World Bank's DPF operations, especially if one only reads the Bank DPF program documents. In order for community stakeholders to understand exactly what these operations are supporting and the potential social and environmental risks of these DPF operations, the DPF program document must disclose:
- All measures contained in DPF-supported laws, policies and investment frameworks.
 - All current and planned investment projects related to the DPF operation.
3. **Sufficient Low-Carbon Incentives** - DPFs must be specifically designed to promote incentives that prioritize low-carbon development over carbon-intensive options. DPF operations should be assessed to determine if all possible low-carbon alternatives have been adequately supported before any other options are considered.
4. **Comprehensive End to Fossil Fuel Subsidies** – The World Bank's Climate Action Plan states that "the WBG will scale up country-level support and global advocacy to "get prices right" by reducing damaging fossil fuel subsidies..." The Bank often does not recognize its own promotion and creation of new fossil fuel subsidies largely to producers through support for government guarantees, infrastructure investment incentives, and Public-Private Partnerships. Producer subsidies are the drivers of investment and, in the case of those provided to fossil fuels, a significant barrier to low-carbon development.
5. **Elimination of Measures Supporting Fossil Fuel Exploration** – According to the Intergovernmental Panel

on Climate Change (IPCC) and the International Energy Agency (IEA), in order to meet the internationally agreed goal of limiting global average temperature increase to 2 degrees Celsius, at least two-thirds of already existing reserves of fossil fuels need to be left in the ground. Thus, any DPF measures supporting fossil fuel exploration are directly incompatible with preventing the worst impacts of climate change. It is worth noting that the Asian Development Bank already excludes finance for oil and gas exploration.

6. **Comprehensive Forest Protection** – The World Bank Group’s Climate Action Plan, together with the new Forest Action Plan FY16-FY20, specifically states that “the WBG aims to support clients to promote growth that does not come at the expense of their natural forests...” As such, the World Bank must ensure ex-ante DPF assessment of potential risks and impacts of land use change, including direct and indirect impacts to forests. Any DPF reform measures that support project investments that could cause significant adverse impacts to primary forest or critical habitat, and the peoples that depend upon them, should not go forward.

End Notes

1. See <http://www.worldbank.org/en/topic/climatechange/overview> This paper reflects the contents of this World Bank webpage on March 14, 2016.
2. The globally agreed goal of holding warming below a 2°C increase above pre-industrial temperatures by 2100 means that the emissions of greenhouse gases need to be reduced rapidly in the coming years and decades, and brought to zero shortly after 2050.
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