

WORLD BANK DEVELOPMENT POLICY FINANCE AND CLIMATE CHANGE:

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



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World Bank Development Policy Finance and Climate Change: Is the Bank providing the Right Incentives for Low-Carbon Development in Peru?

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. As such, DPFs can influence investment decisions towards either 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 development.**⁴

This paper reviews two current World Bank DPFs in Peru totaling \$2.5 billion. Given Peru is one of the most vulnerable countries in the world to climate change impacts, the country has pushed for deeper greenhouse gas (GHG) emissions cuts globally to hold temperature rise to 1.5°C instead of the globally agreed 2 degree limit. The protection of Peru’s vast Amazon forest cover is of paramount importance as 70 percent of Peru’s pledged GHG emissions reductions depend upon forestry measures.⁵ It is critical that the investment incentives and governance reforms embodied in the World Bank DPF program in Peru specifically prioritize low-carbon development, including mitigation of negative pressures on the Amazon.

Summary of Findings

The World Bank’s current DPFs in Peru support actions to increase private investments in infrastructure projects, including through an enhanced public-private partnership (PPP) investment framework. Unfortunately, the current DPFs do not provide the right incentives to prioritize low-carbon development in Peru. Moreover, the Bank’s environmental assessment of the DPFs was very selective, focusing largely on potentially positive climate measures and did not identify potential risks to forests. As such, the World Bank did not adequately consider the climate change risks of DPF-supported reforms, including *inter alia*:

- **Introduction of Fossil Fuel Subsidies** – The DPF-supported PPP framework includes a wide range of subsidies such as project finance, government guarantees, and project preparation costs. The energy sector PPP projects at the time of the DPFs’ approvals were mainly for oil and gas projects and some large hydropower projects. Hence, the DPF supports the introduction of new fossil fuel subsidies, which conflicts with the Bank’s pledge to reduce fossil fuel subsidies.
- **Gas Subsidies represent Barriers to Renewables and Energy Efficiency** – Even though a recent World Bank Peru case study concluded that natural gas subsidies are barriers to renewable energy and result in less efficient gas power plants, the current DPF operations support further gas subsidies. In addition, a prefeasibility study of the Southern Peru Gas Pipeline, done through World Bank technical assistance, recommended government guarantees and price subsidies for the Southern Peru Gas Pipeline project.
- **Lacking Renewable Energy Support** – Peru’s PPP investment framework, supported by the DPFs, has not

resulted in support for renewable energy projects outside of large hydropower. Currently, there are no upcoming PPP projects for solar, wind, geothermal, or any distributive energy that the DPF reforms will be supporting. In addition, the DPFs did not include necessary reforms to improve the legal framework and institutional capacity for climate-smart renewable energy investments (e.g., solar, wind, and distributed energy).

- **Significantly Weakened Governance** – The DPF-stipulated Law 30230 aimed at investment promotion significantly weakens environmental and social regulations, including *inter alia* expedited approval of environmental impact assessments, greatly reduced fines for environmental infractions, and deteriorates indigenous peoples' land tenure rights. These reforms greatly undermine efforts to improve the governance structures critically needed in Peru to abate forest loss and climate change and protect indigenous communities.
- **Heightened Deforestation Risks** – The DPF's promotion of large-scale infrastructure projects in the context of further weakened environmental governance is dangerous and is undermining Peru's commitments to reduce net deforestation to zero by 2020. Many of the upcoming PPP projects involve direct and indirect drivers of deforestation in Peru, such as oil, gas, large hydropower, and roads. For example, as much as 84% of the Peruvian Amazon has been granted as oil and gas concessions⁶, threatening the wholesale destruction of the forests and communities which depend upon them.
- **Oil and Gas Exploration's Double Threat** – The Peruvian government plans to promote further oil and gas exploration, including 26 new PPP concessions in the Amazon. In addition to forestry risks, incentives for further oil and gas exploration are in direct conflict with the 2 degree limit agreed at the Paris COP21. At least two-thirds of the world's current, proven reserves of oil, gas, and coal must not be burned if we are to avoid raising global temperatures above 2°C.

The Peru case represents a missed opportunity to use DPFs to foster positive incentives for low-carbon development such as redirecting markets towards renewable energy and improving forest and climate governance. Instead the current DPFs contain several climate change risks that potentially threaten Peru's international commitments on forest protection and GHG emissions reductions.

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?** Does it threaten Peru's Intended Nationally Determined Contribution (INDC), including zero net deforestation by 2021? The Peruvian 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 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. For Peru- specific suggestions, please see the Recommendations section at the document's end.
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** – Scientists have determined that at least two-thirds of the world's current, proven reserves of oil, gas, and coal must not be burned if we are to avoid raising global temperatures above 2 degrees Celsius. 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. In addition to the implications for greenhouse gas emissions, exploration in the Amazon carries heightened risk of social conflict and the violation of rights of indigenous peoples.
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.

Furthermore, Bank DPF programs must ensure that the protection of titled and untitled indigenous lands is upheld and that the legal reforms supported by the DPF do not weaken or impose further conflicts with indigenous land rights. As part of DPF support for infrastructure, Prior Actions must include the equitable resolution of the overlapping concessions for oil, gas, and mining with titled and untitled Indigenous lands and traditional territories.

7. **Strengthened Governance – DPF Reforms Must Not Undermine Governance.** DPFs need to ensure that countries have adequate governance capacity to develop and enforce proper regulations and incentives (e.g., GHG emissions limits, reorientation towards renewables and forest protection) to transition the country onto a low-carbon development path. The World Bank specifically needs to ensure that DPFs do not introduce policy reforms that undermine such governance. Policy reforms to strengthen and protect indigenous peoples' and communities' security of tenure of forests should be prioritized as proven strategies to protect forests and combat climate change.⁸

Peru and Climate Change

Peru is one of the most vulnerable countries in the world to climate change impacts, with seven of the nine climate vulnerability characteristics recognized in the 1992 United Nations Framework Convention on Climate Change (UNFCCC), including: low coastal zones; arid areas; exposure to floods, droughts, and desertification; prone to natural disasters; high urban pollution; fragile mountain ecosystems; and significant economic dependence on the production and export of fossil fuels.⁹

Peru is already facing large and ever increasing water shortages, which are exacerbated by the impacts of climate change. Climate impacts including diminished glacial water and decreased precipitation will result in reduced stocks of drinking water, water for irrigation, and water pressure to power hydroelectric facilities. Experts warn that increased demand from agriculture, mining and population growth together with climate change will cause severe water scarcity in Lima already by 2025.¹⁰

Given Peru's high climate vulnerability, Peru has pushed for deeper global greenhouse gas (GHG) emissions cuts to hold temperature rise to 1.5°C instead of the current globally agreed 2 degree limit.¹¹ Based on World Bank data, Peru's CO₂ emissions in 2010 stood at 1.97 metric tons (t) per capita.¹² It is important to note that 2 tCO₂ per capita is the level associated with keeping the global average temperature rise to less than 2°C.¹³ It is also important to note that the World Bank data for per capita CO₂ emissions only include emissions from burning fossil fuels and cement production – not emissions associated with deforestation.

In Peru, the largest source of GHG emissions comes from land use change, or deforestation, accounting for more than 53 percent of emissions.¹⁴ A recent analysis by InfoAmazonia of non-Brazilian Amazon countries, found that Peru had the largest extent of forest loss in 2012, losing 162,000 hectares, an increase of 67 percent over 2011.¹⁵ There are indications that the deforestation rates may have increased substantially since 2012 to 250,000 ha/year.¹⁶

Peru's forests are of paramount importance to the climate. Peru has the fourth largest extent of rainforest in the world, after Brazil, the Democratic Republic of Congo, and Indonesia.¹⁷ Half of the country is forested, and approximately 1.5 million people live in and depend upon this forest.¹⁸ Peru's rainforests are vital to shielding Peru from climate impacts such as flooding and soil erosion and vital to halting climate change as a significant carbon sink.¹⁹ The forests of Peru store approximately 7 billion metric tons of carbon, which is more than the US emits every year.²⁰

Peru's current forest cover stands at approximately 73 m ha. Under the UNFCCC proceedings, Peru has pledged to conserve 54 m ha of rainforests and to achieve zero net deforestation by 2021.²¹ In addition, Peru's Intended Nationally Determined Contribution (INDC) under the UNFCCC indicates that nearly 70 percent of Peru's GHG emission reductions will be realized by forestry measures.²²

However, at odds with these climate commitments, emissions from Peruvian deforestation are projected to soar from 92.6 MtCO₂e in 2010 to 159 MtCO₂e in 2030 – a deforestation rate never seen before in Peru's history.²³ According to the Center for International Forestry Research (CIFOR), an increase in deforestation in Peru is expected during coming years due to development policies that support the expansion of road infrastructure in the Amazon, an increase in agricultural production and support for the extractive sectors (i.e., oil, gas and mining).^{24, 25}

These drivers of deforestation are exacerbated and facilitated by Peru's precarious land tenure system and weak governance. The government gets around laws prohibiting the conversion of primary forests on state land by drawing on other regulations that allow titling of the land to people or corporations that "add economic value" to the land.²⁶ According to the Forest Peoples' Programme²⁷:

"Although Peru's indigenous peoples have gained some legal recognition of their collective land rights,

20 million ha of indigenous customary territories in the Amazon remain unrecognized. Legal title is available only over small areas close to established indigenous settlement and through a slow and bureaucratic process, which may be deliberately blocked by government officials and other vested interests. Larger areas of indigenous communities' territories that the government designates as 'suited to forestry' remain state property under national land and forestry laws, available for privatization and large-scale development."

Thus, in order to achieve successful low-carbon development and not exceed 2°C, it is vital to strengthen Peru's environmental governance and support the promotion of secure tenure rights for forest-dependent communities to mitigate the negative pressures on Amazon forests.

2016 Development Policy Finance in Peru

On February 11, 2016 the World Bank approved two DPF operations for Peru for a grand total of **\$2.5 billion** (\$1.25 billion each). The DPF operations include: 1. Public Expenditure and Fiscal Risk Management Development Policy Financing and 2. Boosting Human Capital and Productivity Development Policy Financing. Both DPFs support actions aimed at attracting private infrastructure investment into Peru with the first operation specifically aimed at **public private partnerships (PPP)**.

In order to achieve successful low-carbon development and not exceed 2°C, it is vital to strengthen Peru's environmental governance and support the promotion of secure tenure rights for forest-dependent communities to mitigate the negative pressures on Amazon forests.

World Bank DPFs and Prior Actions: This paper specifically focuses on investment incentives and governance measures contained within the policy and institutional reforms supported by the two DPF operations. Required policy reforms, such as new laws pertaining to infrastructure development, are determined by the DPF's Prior Actions. According to the World Bank:²⁸

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.

In general, World Bank DPF program documents do not provide a cohesive picture of the specific government actions triggered by the DPF operation, and lack important detail about social and environmental implications. Within the legal frameworks stipulated by DPF Prior Actions, the World Bank tends to only highlight measures that foster transparency, prudent fiscal management and the like. In order to understand exactly what these operations are supporting and the climate risks of these DPF operations, as well as many other social and environmental risks, it is critical to understand:

1. All corresponding measures and incentives (not just a selected sub-set) embodied within a DPF-stipulated policy or institutional reform; and
2. The potential infrastructure projects to benefit from DPF reforms.

The New PPP Law and Investment Incentives/Subsidies

The World Bank's Public Expenditure and Fiscal Risk Management DPF has one pillar of support entitled **"Improving the Government's legal and institutional framework for public-private partnerships (PPPs)."**²⁹ As such, Prior Actions 5 through 8 stipulate the issuance of Legislative Decree No. 1224 – the New PPP Law.³⁰ For example:

Prior Action 8. The Borrower has set up the National Private Investment Promotion System to guide PPPs under a clear, streamlined and traceable process with roles and responsibilities to provide greater predictability to private investors while further enhancing the channels to evaluate the overall fiscal impact, as evidenced by the **issuance of Legislative Decree No. 1224** published in the Official Gazette on September 25, 2015.

On December 28, 2015, Legislative Decree No. 1224, the new legislative framework for Peruvian PPPs, entered into force.³¹ The new PPP Law replaces the prior legal regime. While retaining the prior legal regime's investment incentives, the new PPP Law supported by the DPF provides further clarification on some measures as noted 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 the 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 “non-financial” 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.** This is an important fact to understand with regards to the World Bank's pledge to get incentives right for the low carbon transition and to reduce fossil fuel subsidies.

Some of the specific PPP investment incentives/subsidies that are part of the Bank-supported new PPP framework for Peru include:

Project Preparation Costs According to the World Bank, the government of Peru provides funding for PPP project preparation expenses, such as land acquisition, geological surveys, prospecting, and financial transaction advisors.³³ Project preparation costs on average amount to 3 percent of total project capital costs.³⁴ For example, for a \$500 million infrastructure project the government would contribute a \$15 million subsidy for preparation expenses.

Advanced recovery of Value-Added Tax³⁵ In Peru, PPP projects are eligible for a refund on all Value Added Tax (VAT) on their imports and/or local purchase of goods, services and construction contracts required for executing the PPP project.³⁶ Peru's VAT rate is currently at 18 percent, which is a significant tax break/subsidy given to PPP projects, including fossil fuel projects.

Project Finance The new PPP legal framework supported by the DPF distinguishes between co-financed PPPs and self-financed PPPs based on the expected level of government support. According to the new PPP Law and Regulations:

- **Co-financed projects** are those that require partial financing with public funds or the granting of financial or non-financial guaranties that have a high probability of requiring the payment of public funds (see Government Guarantees below).³⁷
- **Self-financed or self-sustained projects** are defined as those requiring minimal or no public funds; having a predictable revenue stream; and not requiring financial guaranties from any public entity in excess of 5% of the total project costs.³⁸

The “self-financed” classification is misleading. “Self-financed” PPPs can still have public funding/subsidies - up to 5% of total project costs. For large-scale infrastructure projects, 5% is still a significant amount of public funding. For example, the Southern Peru Gas Pipeline is categorized as a self-financed project. Given it is a \$4 billion project, it could still be receiving up to \$200 million in public funding/subsidies.

Aggregate Cap on Government Support In line with the Bank's emphasis on fiscal responsibility, the new PPP framework maintains an aggregate cap on government support levels.³⁹ However, this cap may be revised every

three years or upon issuance of a decree approved by the Ministry of Economy and Finance (MEF).⁴⁰ According to the new PPP regulations, the net present value of all support outstanding at any time cannot exceed 12 percent of the gross domestic product (GDP). It is important to note that the new PPP law supported by the World Bank already raised this level from 7 percent to 12 percent.

In 2014, Peru's Ministry of Economy and Finance (MEF) estimated the net present value (NPV) of all financial and non-financial guarantees amounted to 4.2 percent of GDP.⁴¹ Given Peru's GDP in 2014 was approximately \$202.6 billion, **the NPV of guarantees for PPP projects amounted to approximately \$8.5 billion. Under the new World Bank-supported aggregate cap this amount could triple.** PPP projects involve a large amount of public money and significant fiscal risk exposure for the government, which may explain the recent high level of World Bank DPF funding for Peru, i.e., \$2.5 billion for the two DPF operations assessed.

Government Guarantees The new PPP framework specifies two categories of government guarantees provided to PPP projects in Peru – financial guarantees and non-financial guarantees.

Financial guarantees are unconditional securities of immediate execution, which typically are aimed at backing up on-going Government payment obligations, such as for construction milestone-linked certificates, etc.⁴²

Non-financial guarantees or contractual guarantees are often embedded within PPP contracts and arise from risks inherent to a PPP project. PPP projects that are classified as "self-sustained/self-financed" can have "non-financial" guarantees.

The most common non-financial guarantee in Peru is the minimum revenue guarantee or MRG. For an MRG, the government guarantees a minimum amount of revenue in the event that the demand (and therefore the revenues) for the infrastructure project is not sufficient to cover the concessionaire's debt service costs.⁴³ If in a given year, the concession's effective revenues are lower than those pre-defined in the contract; the government is to pay the difference.⁴⁴

The NPV of guarantees for PPP projects amounted to approximately \$8.5 billion. Under the new World Bank-supported aggregate cap this amount could triple.

One of the first MRGs in Peru was for the natural gas pipelines from Camisea to Lima. Under the MRG, the government guaranteed pipeline investors a minimum capacity usage/payment during the first years of operation when demand was lower than pipeline capacity. This was paid for through a surcharge in the bills of electricity consumers in Peru.⁴⁵ In practice, the MRG mechanism makes electricity consumers bear the risk of the gas transport system. At the same time, consumers also pay for power plants to have a lower gas transport tariff because without the MRG government guarantee, when the pipeline is below maximum capacity, gas transfer fees would have to be much higher.⁴⁶

A project of the World Bank's private sector arm, the International Finance Corporation or **IFC, is one of two direct beneficiaries of the Camisea MRG gas subsidy.** The Camisea gas distribution companies are Transportadora de Gas del Perú S.A (TGP) and Gas Natural de Lima y Callao S.A or **Calidda - the IFC project.** From 2002 to 2008, the total subsidy paid by consumers through the MRG mechanism to the Camisea pipelines equaled US\$ 430 million with \$32 million to Calidda and \$398 million to TGP.⁴⁷

All of the subsidies described above are supported by the World Bank DPF's new PPP framework, which enables subsidies to PPP infrastructure projects whether they are low-carbon or carbon-intensive, climate-friendly renewables or fossil fuels. To understand what type of infrastructure the PPP framework is actually subsidizing, one needs to look at the planned PPP projects in Peru (see Energy Sector PPPs in Peru below).

Significant Weakening of Environmental and Social Governance

New PPP Law weakens governance of regulatory agencies: The new PPP law stipulates that the PPP contract

requires MEF approval and that it “only requires the favorable prior opinion of the Ministry, Regional Government and Local Government concerned, which must be issued within a maximum period of ten (10) business days from the requested, otherwise, the opinion is considered favorable.”⁴⁸ Thus, all sub-national governments and regulatory ministries are only given ten days to provide an “opinion” and if no opinion is provided within ten days, it is automatically assumed favorable.

This weakened role of government agencies contained in the new PPP framework did not go unnoticed and reportedly received complaints, particularly from the heads of Peruvian regulatory bodies. When first submitted, **they stated that the bill would affect the autonomy of their agencies, by limiting their power in the provision of technical opinion, a prior phase to the PPP contracts, and this way, give more power to the Promoting Agency of Private Investment [e.g., ProInversion].**⁴⁹

New Law 30230 – Undermining the Protection of Peru’s Environment and Indigenous Peoples

The World Bank’s Boosting Human Capital and Productivity DPF contains one main pillar of support entitled “facilitating the entry, operation, and exit of firms.”⁵⁰ On this front, according to the loan agreement, the DPF stipulates:

Prior Action #6: The Borrower has taken measures to limit the discretion of all government bodies to impose regulations and administrative procedures outside the national legal framework, by strengthening INDECOPI’s⁵¹ power to sanction non-compliance with the national legal framework, as evidenced by the **enacting of Law No. 30230** published in the Official Gazette on July 12, 2014, modifying Law 27444 of April 10, 2001 (*Ley de Procedimiento Administrativo General*) and Legislative Decree No. 1212 published in the Official Gazette on September 24, 2015.⁵²

On July 11, 2014, the Government of Peru passed the DPF-supported Law 30230, an extensive series of decrees aimed to promote investment in the country. However, this Law includes regressive measures that affect social and environmental governance, including *inter alia*:⁵³

- Stripping the Ministry of Environment’s authority to directly create areas for the conservation of biodiversity and natural landscapes. This eliminates the ministry’s power to establish nature reserves exempt from mining and oil-drilling, much of which is slated to take place in the Amazon.⁵⁴
- Reduction by half of the time required to review environmental impact assessments (EIAs) to just 45 days, imposing sanctions on public officers who fail to meet this deadline. The shortened timeframe for review of the EIA is of great concern because it is sometimes the only information Indigenous Peoples have to evaluate whether they are for or against proposed projects.⁵⁵
- The state agency in charge of environmental regulations (OEFA) is no longer allowed to apply fines in the case of environmental infractions. Rather, it is summoned to indicate corrective measures; only in the case of noncompliance with those corrective measures may fines be issued.
- For the next three years, the level of fines in cases of noncompliance with the corrective measures is reduced by 50%, except for extreme cases or recurrent faults.
- Reduction of the timeline for decisions to be made on expropriation of lands for large infrastructure projects and other projects deemed in the public interest.⁵⁶
- Any future environmental standards and modification of maximum acceptable limits, proposed by the Ministry of Environment, will require explicit consideration of the economic impact on the industry sector concerned. It will also require previous approval from the corresponding sector ministry, concretely the Ministry of Energy and Mining, which has the mandate to promote the expansion of its sector.

The definition of Acceptable Maximum Limits and Environmental Quality Standards is no longer a technical

decision made by the ministry of environment, but now requires the authorization of all ministries, including the ones with the legal mandate to promote extractive industries (oil, gas, and mining).⁵⁷ It is important to note that this DPF-supported new law was opposed by Organismo de Evaluación y Fiscalización Ambiental or OEFA, the monitoring agency for extractive industries that is part of the Ministry of the Environment⁵⁸, Peru's citizen's ombudsman, and the United Nations.⁵⁹

Due to Law 30230, OEFA has dismissed or reduced many environmental fines owed by the oil and gas companies. Between July 2014 and March 2015, Convoca, an investigative journalism network, estimated that OEFA pardoned between \$2.1 million and \$8.6 million in fines for oil and gas companies.⁶⁰ Thus, the World Bank's DPF actions are enabling yet more fossil fuel subsidies.

The timing of Law 30230 is interesting and concerning. Law 30230 was enacted on July 11, 2014 just days before the contract for the Southern Peru Gas Pipeline was signed on July 23, 2014. Greatly reducing the possibility of being fined for noncompliance with environmental regulations during the construction phase of the pipeline and expediting land acquisition procedures provide a major boost to the project that had yet to verify its path through the Amazon forest (see Energy Sector PPP Projects below). The Southern Peru Gas Pipeline project is still struggling with securing the necessary finance. Reducing the financial risks associated with noncompliance of environmental regulations would boost the bankability score for potential lenders. Box 1 provides a cautionary tale regarding building pipelines in Peru under the context of weak environmental governance.

Box 1. Expediting Environmental Permits has a Bad Record in Peru⁶¹

Within the first two years of operation, the Camisea natural gas TGP pipeline had five leaks. This number of leaks so early in the project called into question the structural integrity of the pipeline. A Peruvian congressional investigation determined the leaks were the result of rushed construction. An assessment by the Inter-American Development Bank found that the unstable physical environment was largely the cause. An independent audit requested by the Government of Peru and performed by Germanischer Lloyd concluded that Transportadora de Gas del Perú (TGP), the pipeline operator, did not conduct thorough geological or social studies, an oversight that played a part in the leaks. Peru fined TGP \$1 million for the leaks. In addition, the consortium spent about \$50 million to fix the problems.⁶²

In addition to concerns over the Southern Peru Gas Pipeline PPP project, in 2014, **Perupetro reported its plans to establish 26 new oil and gas PPP concessions in the Amazon.**⁶³ As previously noted in the Peru and Climate Change section of this paper, the rate of deforestation in Peru is soaring and is expected to increase in coming years due to development policies that support the expansion of extractive sectors, agricultural production, and roads in the Amazon.⁶⁴ The Bank's support for Law 30230 clearly exacerbates this problem.

In addition to weakening environmental regulations, Vladimir Pinto, a legal specialist, argues that several of the articles in Law 30230 threaten Indigenous Peoples' territorial land tenure rights in order to prioritize development projects.⁶⁵ As such, the DPF-supported law contradicts the World Bank's programs in Peru supporting Peru's forest protection and emission reduction strategies (namely the Forest Carbon Partnership Facility-FCPF and Forest Investment Program-FIP), which clearly recognize that Peru's commitments to reducing deforestation cannot succeed without the enabling condition of secure land rights for Peru's indigenous peoples.⁶⁶ Indigenous communities have

filed an appeal against Law 30230 asserting the law violates their rights provided in the Constitution (see Box 2).

Lastly, both the DPF-supported new PPP Law and Law 30230 greatly undermine the World Bank's own efforts to improve environmental governance in Peru, including the 2010-2013 Programmatic Environmental Development Policy Loan (US\$75 million), which aimed at strengthening the legal framework for environmental management of large infrastructure investments and the capacity of OEFA to monitor EIAs.⁶⁷

Box 2 Indigenous Rights and Law 30230

In March 2016, human rights and indigenous organizations, led by Asociación Interétnica de la Selva Peruana (AIDSEP) and the Working Group on Indigenous Peoples of the Coordinadora Nacional de Derechos Humanos filed an appeal against Law 30230 to Peru's Constitutional Court. The plaintiffs contend that many Articles of the Law (Arts. 36, 38-40, and 42-51) violate the Peruvian Constitution as they contravene fundamental human rights, including the right of indigenous peoples to their ancestral lands and the right to a clean and healthy environment.⁶⁸ The final verdict by the Constitutional Court is pending.

Energy Sector PPPs in Peru

In consideration of climate change risks and a low carbon transition, the energy sector is one of the most important because of the potential of significant GHG emissions from both fossil fuels and potential threats to the Peruvian Amazon forest. Table 1 lists the PPP energy sector projects that were being offered leading up to the World Bank's DPF operations, and thus, represent the projects slated to benefit from the Bank-sponsored investment incentives and reduction of "bureaucratic obstacles," i.e., weakened social and environmental governance.

Table 1 indicates that all of the energy sector PPP projects being offered at the time of the World Bank's approval for the two DPF operations were for fossil fuel and large hydrocarbon projects, which are

threatened by climate change-related water shortages. There were no climate-smart renewable energy PPP projects being planned.

In addition, Table 1 lists three PPP energy projects that were approved prior to the enactment of the new DPF-stipulated PPP framework. The most significant and largest PPP project in Peru is the Southern Peru Gas pipeline. The World Bank contends that these projects were approved prior to the DPF operations start date and, thus, should not be included.

This paper argues that these projects have not reached financial closure and thus, according to the new PPP regulations, an existing PPP contract can be renegotiated and be amended. PPP contractual amendments are most often due to changes requested by lenders to address bankability issues.⁶⁹ This is particularly relevant to the Southern Peru Gas pipeline as it is still currently unable to secure all the necessary financing.⁷⁰ In addition, the contract for the Southern Peru Gas pipeline was signed after the DPF-stipulated Law 30230 was enacted, which significantly restricts sanctions for regulatory violations (important during the construction and early operation) and eases the pipeline's attainment of pending permits and land acquisition.

It is reported that government plans, i.e. future PPP projects, include a \$3.5 billion petrochemicals factory and \$4 billion in gas power plants.

Southern Peru Gas Pipeline: The Southern Peru Gas Pipeline is by far the most significant energy sector PPP project and one of the largest PPP projects overall. **It is a \$4 billion project accounting for approximately 54 percent of total energy sector investments and 27 percent of all PPP projects from 2011 to 2014.**⁷¹ On July 23, 2014, the government of Peru signed the contract for a 34-year PPP concession of the Southern Peru Gas Pipeline, with an expected completion in 2019.⁷²

The pipeline will run from the Camisea gas fields to the most southern regions of the country (Cusco, Arequipa and Moquegua) across the Amazon rainforest and over the Andes Mountains to the southern port of Ilo. It is a 700-mile long pipeline with gas transportation capacity of 2000mn cubic feet per day.⁷³ The pipeline will transport natural gas and liquid gas slated for power plants, large mining projects and the upcoming petrochemical and energy projects involved in the Southern Power Node (PPP projects awarded in 2013).⁷⁴ It is reported that government plans, i.e. future PPP projects, include a \$3.5 billion petrochemicals factory and \$4 billion in gas power plants.⁷⁵

Table 1. Upcoming Energy Sector PPP Projects in Peru

Project	Estimated Investment (US\$ million)	Concession Period	Modality	Description	Status
Improvement in the Electrical Security of the Country and Development of the Peruvian Gas pipeline	\$3,643	34 years	Self-sustained (regulated price pending)	Southern Peru Gas Pipeline or GSP Pipeline	under construction, 2019 completion
500 MW Thermal Plant in Ilo	\$500	20 years	unspecified	diesel plant plans to switch to gas upon GSP completion	under construction, 2017 completion
LNG Supply System for Domestic Market	\$250	20 years	Self-sustained	natural gas pipeline and distribution	Called
Liquid Petroleum Gas Supply System for Lima and Callao	\$250	22 years	Self-sustained	LPG pipeline and storage facility	Called
Massive Use of Natural Gas or Natural Gas Infrastructure Build-out in to Southern and Central Peru	\$350	32 years	Self-sustained	Gas pipeline networks in Southern and Central Peru	Called
Quillabamba Thermal Power Plant	\$180	20 years	Self-sustained	200 MW single cycle gas power plant	Called
Hydroelectric Power Plant San Gabán III	\$438	30 years	Self-sustained (fixed annual royalty)	206 MW hydroelectric power	Awarded Nov. 2015
Iluminando Perú - Streetlight Ecological System	unspecified	20 years	Unsolicited	improved efficiency of streetlights - LED	under evaluation
Modernization of the streetlight in city of Arequipa	unspecified	15 years	Unsolicited	improved efficiency of streetlights - LED	under evaluation
Huayday Ambara Mining Prospect	\$8	12 years +	unspecified	significant coal resources	Called, suspended
Energy Supply from New Hydroelectric Power Stations (nation-wide)	\$2,750	unspecified	unspecified	hydroelectric power (size unspecified)	Called, suspended

Source: ProInversion website as consulted on June 12, 2016. <http://www.proyectosapp.pe/modulos/JER/PlantillaStandard.aspx?are=1&prf=2&jer=6877&sec=30>

Three PPP thermal power plants are part of the Southern Peru Gas Pipeline-extended projects. The plants include: 590 MW Mollendo Thermal Power Plant (slated to be operational by 2016 using diesel fuel and then switching to gas once the pipeline is finished); 500 MW Ilo Thermal Power Plant (\$500 million, slated to be operational by 2017 using diesel fuel and then switching to gas); and 200 MW Quillabamba gas thermal power plant (\$180 million). The first two plants were awarded by ProInversion in November and December 2013, respectively, and Quillabamba is currently on offer.

In addition, petrochemical projects are essential to the viability of the Southern Peru Gas pipeline as they would help create new demand for gas as a feedstock and for power. In fact, according to the Brazilian consulting firm Gas Energy Latin America, if demand is not created companies may choose not to develop reserves, which would leave the new pipeline empty for several years to come.⁷⁶ Thus, in addition to spurring gas-dependent industries, construction of the Southern Peru Gas pipeline will provide impetus to further develop reserves and explore the Camisea area for more gas.⁷⁷ The Camisea area is in the Amazon, hence further exploration is associated with significant risks to the forest and indigenous communities (see Box 3 below).

In addition, according to *Oil and Gas Year*, the new supply of gas will need to be relatively cheap for petrochemical plants to operate at competitive prices.⁷⁸ As such, it is reported that **the Southern Peru Gas pipeline is slated to deliver price-regulated gas, i.e., subsidized gas.**⁷⁹ It is unclear what government mechanisms/subsidies will be used to deliver price-regulated gas. Given it appears the pipeline will be operating at below capacity in the early years, a minimum revenue guarantee or MRG-type guarantee like that used for the main Camisea pipelines may be planned. Keep in mind the World Bank-supported new PPP framework refers to this type of guarantee as a non-financial guarantee, which can be granted to “self-financed” PPP projects.

Box 3. Peru’s 2025 Planned Energy Mix: DPF Missed Opportunity to Expand Climate-Smart Renewables

Peru’s overall energy mix objective is a cause for climate concern. According to Proinversion’s website, in 2013 Peru’s power generation mix was 46 percent natural gas and oil, 53 percent large hydropower, and less than 1 percent from other renewables, including solar and biomass. Given Peru’s water scarcity risks affecting potential water supply for hydropower generation and that many new large hydropower plants are associated with significant forest loss, it does not represent the best climate-smart energy option for Peru. Thus, it would make climate sense to prioritize other renewable energy sources. However, Peru’s National Energy Plan 2014-2015 states 60 percent of the energy matrix by 2025 should come from “renewables”, with 54 percent from large hydropower and only 6 percent from solar, wind, biomass and small hydropower (less than 20 MW).

In order to have a more ambitious target for climate-smart renewable energy and increase investments in them, Peru is in need of comprehensive feasibility studies for solar and wind power.⁸⁵ More years of data collection are needed to increase certainty over the performance of these renewable energy sources. Preliminary figures are promising, with very high radiation levels in the south of the country (6-7 kWh per square meter) and very constant winds along the coast.⁸⁶

Moreover, according to Walsh, a large environmental consultancy, Peru’s power sector regulation is in need of reform as it is very old and based on a model for large hydropower and thermal power generation. It is difficult to apply to wind, solar, geothermal and distributive energy projects. Walsh adds that Peruvian regulators lack experience with new renewable energy sources and the legal framework does not allow them to be flexible.⁸⁷

It is unfortunate that the World Bank DPFs did not include reforms to improve the legal framework and power sector regulations to be more accommodating to climate-smart renewable energy investments (e.g., solar, wind and distributive energy).

World Bank Technical Assistance Recommends Subsidized Gas for Southern Peru Gas Pipeline

- In 2006, World Bank technical assistance to Peru produced the report “Peru: Extending the Use of Natural Gas to Inland Provinces”. This report provided prefeasibility studies on the extension of trunk lines from the main Camisea pipeline to the regions supported by the Southern Peru Gas pipeline.⁸⁰ The WB report recommended several subsidies for natural gas, including: a continuation of the MRG-type guarantee and/or “direct subsidies for the creation of [gas distribution] infrastructure.” The WB report also recommended the use of promotional gas price discounts in initial contracts for large consumers in line with those provided for the Camisea Concession.

In contrast to the Bank’s recommendation for subsidized gas, the World Bank’s own PPP Peru case study in 2013 determined that **“the discounted price for internal use of Camisea natural gas introduces a price distortion in the market that is a serious barrier to hydroelectricity and other renewable technologies— as well as the efficient use of natural gas in thermal power generation, such as through combined cycle units.”**⁸¹

Upcoming PPPs Expand Fossil Fuel Exploration

To shed more understanding on potential environmental and social risks of the World Bank’s DPFs, it is important to look at the near-term development plans and goals of the government of Peru. In the case of climate risks and the promotion of low carbon infrastructure, it is important to look at what is planned for the energy sector and the future for potential PPP projects.

With regards to hydrocarbons, according to Perupetro, the government is currently reviewing the **Northern Peruvian Gas Pipeline Project** to provide transport of Camisea’s gas to northern regions of Peru.⁸² Also, during the coming years, Perupetro is planning to carry out oil bidding rounds on several on-shore and off-shore blocks (Blocks 177,165,197,198, 181, 157, 190, 191) that would feed into the existing Northern Peruvian Oil Pipeline. Perupetro has had to declare an environmental emergency regarding this pipeline, which has had 11 leaks in the Amazon already this year (2016).⁸³ Perupetro has also stated its intention to evaluate “the possibility of starting direct negotiations with companies willing to explore, especially by associating with Petroperu,” i.e. entering into PPP concessions.⁸⁴

Such efforts hinder Peru’s own global push for greater GHG emissions reductions to limit global temperature increase to 1.5 degrees Celsius. Scientists have determined that at least two-thirds of the world’s current, proven reserves of oil, gas, and coal must not be burned if we are to avoid raising global temperatures above 2 degrees Celsius. Thus, **any incentives for expanding fossil fuel exploration are directly incompatible with preventing the worst impacts of climate change.**

Climate Change Risk Assessment of DPFs

The World Bank’s environmental review of both DPFs concluded that the specific policies supported by the DPFs are not likely to have significant effects on Peru’s environmental resources (e.g. forests, water resources, etc.) and natural habitats.” The Bank further states under the Environmental Aspects section of the Program Document, “Credible scenarios for any significant, direct or indirect negative impacts appear very unlikely.”

Given that the DPF-supported policies of the new PPP legislative framework benefit and promote hydrocarbon projects in Peru and that the PPP projects currently under implementation and being offered by the government are only fossil fuels and large hydropower (which may be associated with significant deforestation). It seems straight forward that the World Bank should have specifically assessed the associated risks of substantial increases in GHG emissions against the 2 degree goal. Given the importance of Peru’s Amazon, the Bank should have recognized potential deforestation risks associated with: actual PPP projects, e.g. the Southern Peru Gas Pipeline PPP project (see Box 3 below); and the promotion of large-infrastructure in the context of weakened governance,

Box 3. PPP Projects and Forest Risks

Several of the Peruvian government’s planned PPP projects involve identified drivers of deforestation in Peru, including oil and gas production/transport; large hydropower plants; and roads.⁹² In the context of weakened environmental governance, the promotion of these large-scale infrastructure projects poses a significant deforestation risk. For example:

The \$4 billion, 700 mile **Southern Peru Gas Pipeline** PPP project – one of the biggest infrastructure projects ever in Peru – will have a significant portion constructed through the Amazon. It is estimated that building the pipeline will necessitate the upgrade of 400 kilometers of roads.⁹³ The pipeline will connect previously isolated forests and indigenous peoples through access roads constructed for use during the project. The spot where the pipeline will start in Cusco is also the main base of operations for the Camisea project prompting increased oil and gas exploration in the area. While this PPP project was awarded prior to the new PPP framework, it was signed after the DPF-stipulated Law 30230 was enacted, which weakens indigenous people’s land rights in the Amazon and environmental governance. It significantly restricts sanctions for regulatory violations and eases the attainment of permits.

Peruvian government plans to promote further oil and gas exploration including **26 new oil and gas PPP concessions in the Amazon.**⁹⁴ Much of this exploration is slated to occur across the Camisea gas fields, also known as Lot 88. Seventy-four percent of the gas fields overlap with a reserve established to protect isolated indigenous peoples, the Kugapakori-Nahua-Nanti Reserve, and with a buffer zone of the Manu National Park, a UNESCO World Heritage Site whose biodiversity is said to exceed that of any other place on Earth.⁹⁵ The new exploration implies forest clearing associated with drilling of new wells, large-scale seismic testing, workers’ camps, roads, and helicopter discharge zones.⁹⁶ The *Guardian* reports that seismic exploration often involves huge areas of land, 100s of workers and the detonation of explosives underground, leading Peru’s ombudsman, the Defensoria del Pueblo, to call the seismic stage the “riskiest” stage of oil and gas exploration for indigenous peoples in the Amazon.⁹⁷

specifically the DPF's support to limit regulatory oversight and the several environmentally regressive measures of DPF-supported Law 30230.

On the hydrocarbon front, oil and gas concessions now cover 75 percent of Peru's Amazon territory,⁸⁸ up from 41 percent in 2009.⁸⁹ Almost all of these concessions overlap with areas of extreme ecological and cultural sensitivity, including areas occupied by indigenous peoples living in voluntary isolation.⁹⁰ The majority of Peru's 1.4 billion barrels of proved oil reserves are located onshore in the Amazon region. As previously indicated, **in the coming years Perupetro plans to establish 26 new oil and gas PPP concessions in the Amazon.**⁹¹

Furthermore, World Bank DPFs heavily rely on the country's capacity to carry out adequate Environmental Impact Assessments (EIA) of the investment projects that result from policy reforms – Peru is no exception. The World Bank states as part of its environmental review for the Public Expenditure and Fiscal Risk Management DPF, which specifically supports the implementation of PPP projects:⁹⁸

The Bank has supported environmental reforms under the Programmatic Environmental Development Policy Finance between 2009 and 2013, including the strengthening of the National System for Environmental Impact Assessment (SENACE and SEIA) and institutions such as the Ministry of Environment (MINAM) and the National Service for Protected Areas (SERNAP)... All public investment projects, including those implemented through PPPs are subject to the National System for Environment Impact Assessment. The public investment management system (SNIP) duly enforces these requirements. Prior actions 5 and 8 of this operation ensure that PPPs are fully subject to the SNIP, which guarantees that environmental impact controls are fully activated.

First of all it must be recognized that improving EIA procedures is an inadequate approach to addressing policies and incentives that foster fossil fuel projects. EIAs, no matter how adequate they are implemented, are unable to counter the market failures of inappropriate economic incentives and thus, will not bring about a low carbon transition.

Second, in the case of Peru, both the DPF environmental reviews do not address the risks posed by the DPF-supported Law 30230 aimed at increasing private investment that strip the environment ministry's jurisdiction to set air, soil, and water quality standards, which include GHG emission limits, as well as to provide adequate EIAs on infrastructure projects. This law was opposed by Peru's own citizen's Ombudsman, the OEFA, and the United Nations but it is not considered to pose any environmental or social risks according to the DPF's environmental review.

Summary of Findings

The climate crisis and the goal of limiting temperature increase to no more than 2 degrees (Peru has pushed for a 1.5°C limit) require both a significant reduction in fossil fuel burning and protection of forests. Given Peru's substantial climate change vulnerabilities, further expansion of fossil fuels and deforestation increases the probability and severity of climate change impacts to Peru's poor.

The World Bank's current DPFs in Peru support actions to increase private investments in infrastructure projects, including through an enhanced public-private partnership (PPP) investment framework. While the PPP regime can play an important role to help close the infrastructure finance gap, PPPs involve a tremendous amount of public money, i.e. subsidies, and thus, only the most socially beneficial infrastructure projects should be supported. In the case of Peru and climate change, the highest scrutiny must be placed on how the PPP framework is used to prioritize low-carbon infrastructure.

Unfortunately, the current DPFs do not provide the right incentives to prioritize low-carbon development in

Peru. Moreover, the two DPFs actions significantly weakened social and environmental governance critical to protecting the climate and Peru's forests. Lastly, the Bank's environmental assessment of the DPFs was very selective, focusing largely on potentially positive climate measures and did not identify any potential forest risks. As such, the World Bank did not adequately consider the climate change risks of DPF-supported reforms, including *inter alia*:

- **Introduction of Fossil Fuel Subsidies** – The DPF-supported PPP framework includes a wide range of subsidies such as project finance, government guarantees, and project preparation costs. The energy sector PPP projects at the time of the DPFs' approvals were mainly for oil and gas projects and some large hydropower projects. Hence, the DPF supports the introduction of new fossil fuel subsidies, which conflicts with the Bank's pledge to reduce fossil fuel subsidies.
- **Gas Subsidies represent Barriers to Renewables and Energy Efficiency** – Even though a recent World Bank Peru case study concluded that natural gas subsidies are barriers to renewable energy and result in less efficient gas power plants, the current DPF operations support further gas subsidies. In addition, a prefeasibility study of the Southern Peru Gas Pipeline, done through World Bank technical assistance, recommended government guarantees and price subsidies for the Southern Peru Gas Pipeline project.
- **Lacking Renewable Energy Support** – Peru's PPP investment framework, supported by the DPFs, has not resulted in support for renewable energy projects outside of large hydropower. Currently, there are no upcoming PPP projects for solar, wind, geothermal, or any distributive energy that the DPF reforms will be supporting. In addition, the DPFs did not include necessary reforms to improve the legal framework and institutional capacity for climate-smart renewable energy investments (e.g., solar, wind, and distributed energy).
- **Significantly Weakened Governance** – The DPF-stipulated Law 30230 aimed at investment promotion significantly weakens environmental and social regulations, including *inter alia* expedited approval of environmental impact assessments, greatly reduced fines for environmental infractions, and deteriorates indigenous peoples' land tenure rights. These reforms greatly undermine efforts to improve the governance structures critically needed in Peru to abate forest loss and climate change and protect indigenous communities.
- **Heightened Deforestation Risks** – The DPF's promotion of large-scale infrastructure projects in the context of further weakened environmental governance is dangerous and is undermining Peru's commitments to reduce net deforestation to zero by 2020. Many of the upcoming PPP projects involve direct and indirect drivers of deforestation in Peru, such as oil, gas, large hydropower, and roads. For example, as much as 84% of the Peruvian Amazon has been granted as oil and gas concessions⁹⁹, threatening the wholesale destruction of the forests and communities which depend upon them.
- **Oil and Gas Exploration's Double Threat** – The Peruvian government plans to promote further oil and gas exploration, including 26 new PPP concessions in the Amazon. In addition to forestry risks, incentives for further oil and gas exploration are in direct conflict with the 2 degree limit agreed at the Paris COP21. At least two-thirds of the world's current, proven reserves of oil, gas, and coal must not be burned if we are to avoid raising global temperatures above 2°C.

The Peru case represents a missed opportunity to use DPFs to foster positive incentives for low-carbon development such as redirecting markets towards clean renewable energy and improving forest governance. Instead, the current DPFs contain several climate change risks that threaten Peru's international commitments on forest protection and GHG emissions reductions.

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 Peru 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 and better forest governance for Peru. To this end, the World Bank should adopt:

- 1. Robust Climate Change Assessment for DPFs – Does it pass the 2 degree test?** The Peruvian 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.¹⁰⁰

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. In the case of Peru, do DPF actions threaten Peru's Intended Nationally Determined Contribution (INDC), including zero net deforestation by 2021? 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/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.

In the case of Peru, the DPFs should have:

- Ensured the government's planned/offered PPP infrastructure projects included adequate climate-smart renewable energy projects (e.g., solar, wind, geothermal and small hydropower) to put the country on a 2 degree development pathway.
 - Reformed the outdated energy sector legal framework to improve accommodation of and market transition to climate-smart renewable energy.
 - Ensured DPF measures were consistent with Peru's international climate commitments, such as a 30% reduction in greenhouse gas emissions compared to business as usual.
- 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..." Thus far, the World Bank has taken a limited approach to phasing out fossil fuel subsidies by targeting largely consumer subsidies mainly through decreasing government price-support for electricity and fuels. 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.

In the case of Peru, the Bank's DPF-supported new PPP law should have specified that PPP projects involving fossil fuels were exempt from receiving any subsidies, including *inter alia*: government guarantees, project preparation costs, tax refunds, and project finance. Furthermore, the Bank should be consistent across countries regarding fossil fuel price subsidies. Thus, the Peruvian DPFs should have specified that no form of price subsidies can be used for fossil fuel projects, including for the Southern Peru Gas Pipeline.

- 5. Elimination of Measures Supporting Fossil Fuel Exploration** – Scientists have determined that at least two-thirds of the world's current, proven reserves of oil, gas, and coal must not be burned if we are to avoid raising global temperatures above 2 degrees Celsius – the globally agreed limit. 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 specifically excludes finance for oil and gas exploration. In addition to the implications for greenhouse gas emissions, exploration in the Amazon carries heightened risk of social conflict and the violation of rights of indigenous peoples.
- 6. Comprehensive Primary 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.

Furthermore, Bank DPF programs must ensure that the protection of titled and untitled indigenous lands is upheld and that the legal reforms supported by the DPF do not weaken or impose further conflicts with indigenous land rights. As part of DPF support for infrastructure, Prior Actions must include the equitable resolution of the overlapping concessions for oil, gas, and mining with titled and untitled Indigenous lands and traditional territories.

In the case of Peru, the PPP projects that will benefit from the Bank-sponsored PPP legal framework, are likely to have negative impacts on the unique forests and forest peoples in Peru. Amidst ongoing concerns that

Peru's environmental oversight is being undermined by efforts to shore up private investment¹⁰¹, this missed opportunity to support the Peruvian government in strengthening its protections for forests and local and indigenous communities is of paramount significance.

- 7. Strengthened Governance – DPF Reforms Must Not Undermine Governance.** To achieve successful low-carbon development, DPFs need to ensure that countries have adequate governance capacity to develop, implement and enforce proper regulations and incentives (including GHG emissions limits, reorientation towards renewables, carbon taxes, and forest protection) to transition the country onto a low-carbon development path. The World Bank specifically needs to ensure that DPFs do not introduce policy reforms that undermine such governance. Policy reforms to strengthen and protect indigenous peoples' and communities' security of tenure of forests should be prioritized as proven strategies to protect forests and combat climate change¹⁰².

In the case of Peru, strengthened governance is essential to avoiding forest loss and to mitigating negative pressures on the Amazon. Just as the current Peruvian DPFs included substantial measures to improve the fiscal governance surrounding investments, it should have equally improved the environmental governance to manage such infrastructure investments. As such, the DPFs should have:

- Strengthened laws prohibiting the conversion of primary forests on state land to eliminate contradictions stemming from regulations that allow titling of the land to people or corporations that “add economic value” to the land.¹⁰³
- Recognized that Peru already has one of the best investment ratings in South America¹⁰⁴ and that the DPF should not have supported a PPP law that expedites the permitting process by limiting and undermining the project approval functions of regulatory ministries, including the Ministry of Environment. Such a reform undermines the World Bank's own efforts to improve the environmental impact assessment of infrastructure projects in Peru.

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.
3. See <http://www.worldbank.org/en/news/feature/2015/03/18/5-ways-reduce-drivers-climate-change>
4. The World Bank also provides technical assistance (TA) and advisory services that are often associated with DPFs. This paper does not cover these types of assistance. However, these types of assistance also influence government policies and investment incentives and thus, need to be adequately assessed and appropriately designed.
5. <http://www.lse.ac.uk/GranthamInstitute/legislation/countries/peru/>
6. <http://raisg.socioambiental.org/deforestacion-en-la-amazonia-1970-2013>
7. Regarding the assessment of climate risks of DPLs, the current policy OP8.60 only suggests a non-binding “toolkit” to be used at the task team's discretion.
8. Soares-Filho et al, 2010. Role of Brazilian Amazon Protected Areas in Climate Change Mitigation. *PNAS* 107(24):10821–26.
9. USAID, 2012. Follow the Water: Emerging Issues of Climate Change and Conflict in Peru. Office of Conflict Management and Mitigation, United States Agency for International Development (USAID), June 2012.
10. According to the World Bank's Water and Sanitation Program for Peru: <https://www.wsp.org/featuresevents/features/lima-running-dry-%E2%80%93-promoting-water-culture-second-driest-capital-world>
11. <http://www.perusupportgroup.org.uk/peru-climate-change.html>
12. Reportedly dropping in 2011 to 1.78 t. It is unclear why this drop occurred and more recent data are unavailable. <http://en.actualitix.com/country/per/peru-co2-emissions-per-capita.php>
13. 2 tCO₂ per capita is the level of per capita emissions that is associated with a 50 percent chance of keeping the global average

temperature rise to less than 2°C – the globally agreed limit. World Bank 2012 ESMAP paper on Low Carbon Options.

14. <http://pe.seeg.global/emisiones-totales/>
15. <http://news.mongabay.com/2013/06/deforestation-rates-for-amazon-countries-outside-brazil/>
16. AIDSESP and FPP, 2015. Revealing the Hidden Indigenous perspectives on deforestation in the Peruvian Amazon . Asociación Interétnica de Desarrollo de la Selva Peruana (AIDSESP) and Forest Peoples Programme (FPP), August 2015.
17. <http://rainforests.mongabay.com/>
18. <http://data.worldbank.org/indicator/SP.POP.TOTL>
19. That is, the amount of carbon dioxide emissions that would be avoided by halting tropical deforestation, *plus* the carbon dioxide that would be removed from the atmosphere by continuing to regrow tropical forests at the current pace. IPCC, 2014: Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland. <http://www.ipcc.ch/report/ar5/syr/>
20. <https://www.theguardian.com/world/2014/nov/12/perus-forests-store-more-co2-than-us-emits-in-a-year-research-shows>
21. <http://www.lse.ac.uk/GranthamInstitute/legislation/countries/peru/>
22. Ibid.
23. <http://climateactiontracker.org/countries/peru.html>
24. <http://www.cifor.org/library/4438/the-context-of-redd-in-peru-drivers-agents-and-institutions/>
25. <http://infoamazonia.org/2016/06/perus-climate-commitments-threatened-by-advancing-oil-palm-2/#!/story=post-15775>
26. <http://blog.cifor.org/20927/despite-enthusiasm-for-redd-deforestation-in-peru-continues?fnl=en>
27. Forest Peoples' Programme, 2014. Peru's indigenous peoples assert land rights and offer a better approach to combat Amazon deforestation. <http://www.forestpeoples.org/sites/fpp/files/private/news/2014/02/FPP%20media%20briefing%20PERU.pdf>
28. See: <http://siteresources.worldbank.org/PROJECTS/Resources/40940-1244732625424/Q&Adplrev.pdf>
29. World Bank, 2016. Program Document: Public Expenditure and Fiscal Risk Management Development Policy Financing, January 16, 2016.
30. **Prior Action 5:** The Borrower has enacted a new PPP framework to: (i) incorporate PPPs into the budget process, and ensure spending units (PPP promoters) prioritize their budget allocations for PPPs in a way that is consistent with their existing fiscal framework; (ii) ensure that only projects with a strong business case as reflected in the evaluation report (*Informe de Evaluación*) that adhere to the principles of value-for-money and adequate risk sharing are selected; and (iii) require MEF's favorable binding opinion to the business case reflected in the evaluation report (*Informe de Evaluación*) and to the final draft of the corresponding PPP agreement prior to the entering into any PPP contract, as evidenced by Legislative Decree No. 1224 published in the Official Gazette on September 25, 2015 and Supreme Decree No. 410-2015-EF published in the Official Gazette on December 27, 2015. **Prior Action 6:** The Borrower has appointed MEF as the guiding entity (*ente rector*) of the National Private Investment Promotion System for the development of PPPs, acting through the recently created General Directorate for Private Investment Promotion Policy, which enables MEF to play its role as the highest normative authority for the interpretation of PPP legislation, as well as to enact and improve guidelines and methodologies for the development of PPPs, as evidenced by Legislative Decree No. 1224 published in the Official Gazette on September 25, 2015, and Supreme Decree No. 117-2014-EF published in the Official Gazette on May 23, 2014. **Prior Action 7:** The Borrower has revised: (i) the procedures for receiving and processing co-financed unsolicited PPP proposals, including the roles and responsibilities of key government agencies (soliciting agency, PROINVERSION and MEF) and the requirement at the national level of a Supreme Decree listing the specific interventions and the amount of budgetary support that the soliciting agency (e.g. ministries) will need to allocate to said co-financed unsolicited PPP proposals; and (ii) the dispute resolution mechanisms in PPP contracts, which include arbitration, a dispute settlement body (*Junta de Resolución de Disputas*), and the use of an alternative mechanism through the intervention of a neutral third party (*Amigable Componedor*), as evidenced by Legislative Decree No. 1224 published in the Official Gazette on September 25, 2015 and Supreme Decree No. 410-2015-EF published in the Official Gazette on December 27, 2015.
31. The new regime comprises Legislative Decree 1224 on the Framework for the Development of Private Investment through Public-Private Partnerships and Asset Projects, published on September 25, 2015 and Decree 410-2015-EF containing the regulations applicable thereto, published on December 27, 2015. The New Law replaces the prior legal regime.
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