

POVERTY AND
SOCIAL IMPACT ANALYSIS
FOR CLIMATE
CHANGE

DEVELOPMENT POLICY
OPERATIONS





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Introduction

This guidance note aims to highlight the general ingredients for a successful Poverty and Social Impact Analysis (PSIA) and political economy analysis in climate change Development Policy Operations (DPOs) and to demonstrate that integrating a strong social perspective into DPOs and climate change strategies will contribute to effective, pro-poor actions at the national and sub-national levels.

This guidance note is written for World Bank task teams working on climate change Development Policy Operations¹. It has a dual objective:

- a) Facilitate the understanding of social and poverty impacts of climate change and climate action among TTLs and team members with a climate change background.
- b) Provide an overview of key issues and challenges of climate change operations to team members tasked with poverty and social analysis.

It complements existing resources on Poverty and Social Impact Analysis and political economy analysis in DPOs by providing an overview of the specific issues arising in the analysis of the distributional impacts of climate change policy measures. Highlighting social risks and opportunities, and their costs, can enable clients to make more accurate assessments of the true costs of mitigating and adapting to climate change and to better target World Bank support to the poor and vulnerable.

Building on past and ongoing work related to the poverty and social implications of climate risk, the note provides guidance on appropriate assessment methodologies and approaches. It is structured in three sections:

¹ 'Development policy operations of the World Bank are quick-disbursing external financing to support policy and institutional reforms. They are financed in the form of development policy loans (DPLs) or grants to help a borrower address actual or anticipated development financing requirements. The World Bank may provide development policy lending to national or sub-national level governments in a member country.' (World Bank, 2011e)

Section One gives an overview of poverty and social impacts of climate change and of efforts to address them through policy support (Why?).

Section Two discusses the key components of PSIA in the context of climate change DPOs, including the affected stakeholders (Who?), distributional impacts and their transmission channels (What?).

The section also discusses different methodologies (How?), both quantitative and qualitative, and includes some examples of challenges and lessons from ongoing DPOs.

Section Three offers some tips on the nuts and bolts of climate change PSIA such as sample ToRs, budget envelopes and other resources.



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I. Why this guidance note?

a) The social dimensions of climate change

Climate change has, and will continue to have a number of profound impacts on human systems around the globe. Climate change is bringing sea level rise, changes in average temperatures and precipitation, and changes in the frequency and severity of extreme events. The impacts of these may include: increased damages and losses from extreme weather events; increased water insecurity; changes in livelihoods; changes in agricultural yields; migration; health impacts through fatal vector-borne, cardiovascular or respiratory diseases; and so forth.

TABLE 1.

IMPACTS OF CLIMATE CHANGE	IMPACTS ON HUMAN SYSTEMS
Changes in temperature	Increased water insecurity
Risks of extreme weather events	Increased health risks/illness/fatalities
Threats to ecosystems	Changes in livelihoods
Changes in precipitation patterns	Effects on the wider economy
Threats to biodiversity	Changes in agricultural productivity and food production
Changes in sea-level	Effects on human settlements, land and property
	Migration
	Political/public services faced with new challenges
	Damage to vital infrastructure
	Decline in ecosystem services

Sources: World Bank, 2010a: 25

While not all climate change impacts will be negative, it is broadly accepted that the poorest countries and the most vulnerable communities within those countries will bear a disproportionate share of the hardships associated with climate change (World Bank, 2010a; World Bank, 2010b; World Bank, 2010d; World Bank, 2006; UNICEF, 2007; Adger et al., 2003; Mearns and Norton 2009; Verner, 2011). Adger et al. (2003: 179) furthermore highlight that ‘societal vulnerability to the risks associated with climate change may exacerbate ongoing social and economic challenges, particularly for those parts of societies which are dependent of resources that are sensitive to changes in climate.’

Climate change has major social and poverty implications. The negative impacts of climate change push those living on the margin closer to the edge and can hamper the development pathways of entire regions by impeding the fight against poverty, disease, and hunger. In addition, policies and interventions to both mitigate and adapt to climate change entail significant distributional, poverty and social impacts. For example, improved land use planning to adapt to changing hazard trends could lead to the reallocation of investments in less flood prone areas, which in turn may produce employment losses in some areas and employment gains in others. Climate actions could also impact agricultural and forestry activities, e.g., by limiting activity at certain times of the year in some areas. This in turn might impact vulnerable segments of society, e.g., indigenous peoples, who depend on forests for their livelihoods; or children, who may be affected by changes in their school schedule. Mitigation methods like REDD+ (Reduction of Emissions from Deforestation and Forest Degradation) can both promote livelihoods and a more effective use of goods and assets, but they could also provide the wrong incentives, such as mismanagement of funds or land speculation.

Addressing the distributional, poverty and social consequences of climate change and climate action through DPOs requires analysis that will support the following:

- understanding how climate- and non climate-related drivers of vulnerability interact with one another;
- identifying appropriate policy entry points and approaches for building societal resilience and pro-poor adaptation to natural disasters, climate variability and change;
- understanding how groups might be vulnerable to the impacts of climate change itself,

as well as how groups might be affected by the introduced climate change policies;

- maximizing the potential ‘development dividend’ from low-carbon growth strategies for poor and vulnerable groups, including the livelihood co-benefits of terrestrial (soil and forest) carbon schemes; and,
- minimizing the risks of elite capture and social exclusion in such forms of climate action.

The starting point to understanding vulnerability to climate change is a clear understanding of existing levels of socioeconomic vulnerability and adaptive capacity. However, climate change impacts entail a number of characteristics that require a more dynamic view of vulnerability, novel approaches to analysis and new ways of working. These impacts tend to show the following attributes:

- 1) **Diverse:** Climate change is a phenomenon that impacts virtually every sector. This requires a broad, holistic view when developing policy options and it implies working across sectors and ministries at the country level.
- 2) **Long-term:** Climate change is a long-term process which, while unfolding over a long period of time, implies short, medium and longer term impacts on a country’s economic, social, and political situation. Efforts to address climate change need to consider the nearer and longer term scenarios, as well as counterfactuals.
- 3) **Uncertainty:** While climate science is advancing rapidly, producing reliable projections of how much and how quickly the climate will change in particular regions, countries, and localities, remains a tremendous challenge. Hence, there is a great deal of uncertainty in future climate scenarios, and strategies to address climate change must include a range of options.

These characteristics present some unique challenges to analyzing the potential impacts of climate change related policies supported by DPOs. Efforts to address climate change require trade-offs, and a thorough understanding of long term processes, coupled with a ‘learning by doing’ approach.

b) Increasing World Bank support for climate change DPOs

The World Bank is committed to helping its client countries better manage risks related to climate change, and climate-related DPOs are increasingly becoming a preferred option to support climate action². Climate change DPOs offer a strategic opportunity to support a government’s climate change agenda, including key sectors and policy actions that also contribute to sustainable poverty reduction. DPOs are increasingly selected as they can be employed for a range of sectoral and multi-sectoral interventions that need to be addressed at the policy level, and their fast-disbursing nature makes them ideal for time-sensitive policy reforms. In some regions, such as Latin America and, increasingly, Asia, DPOs now represent the bulk of lending for climate change. In addition, the sectors and issues covered by DPOs have broadened, and cover both mitigation³ and adaptation⁴ measures, including specific

climate-change relevant policy interventions such as ‘greening’ of urban transport infrastructures, irrigation (e.g., Morocco) or even broader national climate change or low-carbon strategies (e.g., in Indonesia or Mexico).⁵

Support to a series of programmatic DPOs allows the Bank to stay aligned with a country’s environmental priorities, signals an evolution towards a more robust environmental agenda, and strengthens institutions and governance structures as well as country-led policy (World Bank, 2010d: xx). The Government of Mexico has developed a series of five climate DPOs to support the mainstreaming of climate change into public policy, improve environmental sustainability, support low carbon growth, improve water resources management and strengthen the social resilience of the poor facing climate change impacts. The Government of Indonesia is preparing a series of DPOs focused on climate change mitigation, adaptation and institutional/cross-sectoral issues that aim to support the Government’s efforts to develop a lower carbon, more climate-resilient growth path that will also benefit Indonesia by improving governance, forest management, efficiency, competitiveness, and energy security.

As climate change DPOs are relatively new types of lending instruments, table 2 some examples of the policy actions such DPOs support.

² The first climate-change related loan goes back to 2003.

³ Mitigation is defined as ‘a human intervention to reduce the emission or enhance the sinks of greenhouse gases.’ (World Bank, 2010d: 356)

⁴ Adaptation is defined as: ‘An adjustment in natural, or human systems in response to actual or expected climate stimuli or their effects, which moderates harm or exploits benefits opportunities.’ (McCarthy et al., IPCC, 2011 after World Bank, 2010c: 5)

⁵ It should be noted that although the total number of environmental DPOs has increased since 2003, it is mostly middle-income countries that are opting for such DPOs. However, Bangladesh has also shown high demand for climate change support in the last decade, given the pertinence of this issue for the whole population.

TABLE 2. Examples of Policy Actions supported by Climate Change DPOs.

PRIOR ACTIONS	INDICATIVE ACTIONS
Adaptation	
Developed a National Program for sustainable water resources management based on the Water Sector Review.	Submit the National Program on water resources management, the new Law on water resources management and its implementation Decree to Ministry.
Finalized report on sea level rise scenarios and possible risk reduction.	Adopt guidelines to assess risk linked to sea water intrusion into rivers, and establish list of priority areas for action.
Developed a strategy for coastal community resilience to cope with climate change, including a plan for climate resilient villages in vulnerable districts, and implement a study on coastal vulnerability in relation to sea level rise.	<p>Implement strategy for coastal community resilience to cope with climate change.</p> <p>Start developing climate modeling as basis of development of impact and vulnerability assessment.</p> <p>Prepare an academic paper for Government Regulation to the criteria of the impact of climate change.</p>
Mitigation	
Submitted to the government the Decrees to implement and to enforce Law on energy efficiency and conservation.	<p>Adopt guidelines for the qualification and certification of energy auditors, and for the certification of energy managers in industrial enterprises.</p> <p>Adopt guidelines and procedures for designated enterprises to prepare and submit Annual and Five-year energy efficiency action Plans.</p>
Issued government regulation on geothermal business activity and MOF decrees on Taxes incentive.	<p>Improve policy framework design for promoting geothermal development to facilitate between developer and off-taker.</p> <p>Clarify the scheme of compensation for the incremental cost of geothermal electricity to off-taker.</p>

Sources: Past and ongoing Climate Change DPOs, see Annex

II. Poverty and Social Impact Analysis for climate change DPOs

a) Essentials of PSIA

Operational Policy 8.60 requires that the Bank determine whether country policies supported by DPOs are likely to have significant distributional, poverty and social consequences. Poverty and Social Impact Analysis (PSIA) is a systematic approach to analyze the distributional impact of policy reforms on the welfare of different stakeholder groups, with a particular focus on the poor and vulnerable. Climate policy interventions require the analysis of distributional impacts, including the types of impacts and transmission channels, the tools and techniques most appropriate, the data sources typically required, and the range of political economy factors most likely to affect the reform process (for a PSIA example, see Table 3).⁶

PSIA can make **ex-ante, synchronized, or ex-post recommendations** for appropriate policy options, and, based on the assessments, introduce adjustments to reduce any adverse impacts on the poor through hard and/or soft measures:⁷

- *Ex-ante* PSIA can 'inform the choice, design, and sequencing of alternative policy options' (World Bank, 2007: 9) and can set priority areas within the context of policy dialogue (World Bank, 2011a).
- *Synchronized* PSIA, undertaken during the implementation of reforms, can monitor the reform for possible refinement, including the pace, process and success of the policy impacts on specific groups (World Bank, 2007).
- *Ex-post* PSIA assesses the actual distributional impacts of a completed reform and long-term impacts. It can give feedback on what has worked so far and what not, and why; if provides an outlook on further enhancement necessary in the respective country, as well as on likely impacts of future reforms (World Bank, 2007: 9; World Bank, 2011a).

⁶ In order to further enhance PSIA practice, a Multi-Donor Trust Fund (MDTF) has been established in FY11. It has two main objectives: (1) to support the effective use of poverty, social and distributional analysis in guiding the Bank's policy dialogue and program lending; and (2) to strengthen client country capacity to implement and use the results of poverty, social and distributional analysis to inform national policies. TTLs can apply for MDTF funding with SDV and PRMPR. For further, general guidance on how to design and conduct PSIA, please see the PSIA User's Guide, the TIPS book (Tools for Institutional, Political and Social Analysis of Policy Reform) and the PSIA Good Practice Note.

⁷ 'Hard' options involve physical solutions, e.g., infrastructure, technologies, construction, engineering solutions; 'soft' options are based on policy changes, livelihood diversification, social capital mobilization, or awareness raising or education, particularly those of disadvantaged groups (World Bank, 2010b: 3).

As one specialist put it, **PSIA of climate change DPOs improves ‘the government’s understanding of how the policy reforms could contribute to building climate resilience of the poor, and what adjustments need to be made to ensure that reforms do not further exacerbate the climate related risks of vulnerable groups’** (World Bank, 2011a). The *2010 World Development Report: Development and Climate Change* states that, ‘Climate change adds an additional source of unknowns for decision makers to manage’ and that, ‘Accepting uncertainty [is] inherent to the climate change problem.’

Given the diverse, long-term, and unpredictable nature of climate change impacts, PSIA for climate change DPOs entails some particular challenges that PSIA for other types of DPOs may not face. Climate change DPOs may trigger transmission channels differently than other DPOs, vary in the tools and techniques needed to measure distributional impacts, and require different data sources and team compositions. The sections below discuss these challenges in relation to key aspects and components of PSIA.

Differences can occur in the depth of a PSIA through the number of stakeholders consulted, the time invested⁸, the scope of the analysis, and the policies assessed.

- **Counterparts and stakeholders involved:** Due to the multi-faceted nature of climate change, staff and researchers deal with more counterparts than in a ‘traditional’ PSIA. Furthermore, the role of a climate change PSIA might go beyond the OP 8.60 mandated anal-

ysis, and may not only include the analysis of impact of the reforms supported by the DPO, but also the identification of groups vulnerable to the impacts of climate change itself, and of groups likely to be affected by climate change policies. A multi-layered PSIA design might therefore be appropriate.

- **Flexibility:** Some types of climate change policies are quantitatively and qualitatively difficult to grasp as climate change is unfolding over a long period of time and difficult to measure. Looking at a variety of impacts - the potential impact of policy reform impacts, climate change impacts, as well as the population’s vulnerability threshold - can help create a flexible PSIA approach, which might start off as an ex-ante exercise, change into a synchronized activity and culminate in an ex-post evaluation of a completed intervention or reform.
- **Data:** Climate change data availability, reliability, and quality vary across sectors and countries. PSIA therefore should draw on a variety of sources and tools to reliably measure the distributional impacts. The assessment of the capacity of sectors and reforms, and of their influence on different stakeholders, groups and policy areas can help.

Despite these different options and variations every PSIA basically examines two basic questions:

- Who are the potentially affected? How do these stakeholders shape outcomes?
- What are the actual positive and negative impacts over time and how are they transmitted?

⁸ One of the possibilities of mitigating negative effects resulting from a limited time frame is to build on existing assessments, data sets and structures, which can also avoid duplication effects.

TABLE 3. Example: PSIA of a REDD mitigation strategy.



Sources: World Bank, 2010d: 274; World Bank, 2003a: 9; Indonesia DPL P120313

b) Who? Stakeholder analysis and Political Economy analysis

It is critical to identify the potential winners and losers of a reform; understand who will be more affected than others; and who influences the DPO outcome in order to ensure that the policy reform will not result in adverse impacts on the poor and vulnerable (World Bank, 2010a: v; World Bank, 2003b). Stakeholder analysis also provides insights into coping mechanisms and social risks that can undermine reform objectives. The tool aims to identify policy recommendations that can reduce negative

social impacts and maximize effectiveness of the reform (World Bank, 2011a), bring various stakeholders to the table and to facilitate dialogue about the proposed policy reforms.

In identifying groups most vulnerable to climate change and climate action, it is important to note that, ‘those consistently identified as most vulnerable to climate risk were those already socially vulnerable’ (World Bank, 2010a: v). These may include the income-poor, elderly, women, children, sick or disabled, ethnic minorities or caste groups, indigenous peoples, people dependent on natural



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resources for their livelihoods, and migrants. All of these groups face increased risks due to climate change, depending on gender, age, education, location, or institutional support (World Bank, 2011c; Box 1).

Stakeholder analysis typically uses qualitative data to assess the characteristics, interests, and influence of various stakeholders of a policy reform. However, quantitative measures, such as the analysis of household data, can also provide information about potential winners and losers, as statistical

BOX 1. Gender Analysis and Climate Change.

Women face different vulnerabilities to climate risks due to the structural differences in society that disadvantage them. Poor women often have limited access to resources, mobility, and decision making power; climate change threatens to reinforce these inequalities (UNDP, 2010). As the World Bank Development Report 2010 (World Bank, 2010d: 43) states, the more equal and balanced economic and social rights for women and men are, the less climate hazards discriminate.

Moreover, women have a critical role to play in driving effective, comprehensive responses to climate change challenges. Roberto Foa (2009) found a recurring positive effect of gender equity on climate risk management, whether measured in terms of disaster response, indices of environmental governance, or reduction in carbon emission relative to GDP. Empowerment and participation of women in decision making can therefore lead to improved environmental and livelihood outcomes, as well as to an increase in social resilience.

Policy design needs to build on incentive structures in a gender sensitive manner in order to lead to environmentally sustainable and socially equitable outcomes. For instance, introducing opportunities for women to farm crops for which they have a traditional preference can lead to greater food security. On the other hand, reforms in land use and resettlement could negatively impact women's security and that of entire families if women have less time to dedicate to income-generating activities or child care, or other responsibilities (World Bank, 2005: 27).

It is important that stakeholder analysis acknowledges the differing nature of women's and men's vulnerabilities, concerns and priorities related to climate change. Stakeholder consultations need to be conducted acknowledging the relative roles, rights, and responsibilities of both men and women (e.g., by doing separate consultations with women and men, or taking into consideration social networks, and exclusion of or participation in local organizations or groups) (World Bank, 2005: 27).

Opportunities should be sought to promote women's full participation in decision making and gender-sensitive policy reforms which will save lives, protect fragile natural resources, reduce vulnerabilities, and build resilience for current and future generations (World Bank, 2011g, 2010d: 43; World Bank, 2005).

surveys and data offer an overview of how different agents may modify their behavior in response to a reform or policy, or of the extent households might be affected. The use or prominence of one approach depends on the data available, the stakeholder analysis preferred and the policy reforms envisaged.

Stakeholder analysis for climate change DPOs may be more challenging, but appropriate investment in the consultation process can contribute to effective targeting of policy reforms and highlight the social risks and opportunities of climate action. Climate change affects stakeholders differently, which may lead to tensions, complicate the process

BOX 2. Governments and climate change DPO PSIA.

The way climate change issues are framed and climate risk analysis is integrated in DPOs can play an important role in the government's policy planning, the government's strategy to address climate change and in addressing national priorities at provincial levels. Furthermore, Climate Change DPOs can help create a voice for the vulnerable and the poor as long as PSIA is given the appropriate weight in the DPO.

For this purpose, the following steps can be undertaken when planning a Climate Change DPO PSIA:

- 1) Assess the government's demand for both the climate change DPO and social assessment;
- 2) Assess the level of government support for the PSIA and politics between the sectors affected and the PSIA team - is there political pressure on the PSIA team?
- 3) Promote the visibility of the PSIA at the highest feasible level of government –this can facilitate dissemination and may help to avoid political tensions that may hinder the work;
- 4) Assess the technical design of the PSIA. What are the skills of the team members? How powerful are the responsible ministries or agencies at the state, federal and municipal levels?

It should also be noted that governments are more open to engaging in dialogue and addressing climate risk and vulnerability if there is in-country demand or momentum accompanying efforts such as an international treaty or summit to be held in the country. PSIA should take advantage of this momentum and ensure that the study design be integrated into and/or support these processes.

Climate change DPOs can also help raise the profile of some ministries, in particular the Ministry of Environment, by strengthening their cross-sectoral responsibilities. However, problems might occur if the Ministry of Environment is only a small unit and/or lacks capacity to structure the vision for the DPO. It should then be empowered to ensure that it can enforce structures and policies not only on the state, but also the local level. Furthermore, political volatility can make a PSIA particularly challenging as PSIA depends strongly on government demand and support.

Furthermore, there is often a lack of clear leadership and significant levels of disagreement on climate change issues (Tanner et al., 2011: 9) that the TTL should be aware of and take into consideration.

of stakeholder analysis, and may lead to a slower implementation of the policy. It is important to disaggregate stakeholders by relevant social groupings (rural, urban, indigenous peoples, gender, occupational groupings, private companies, judiciary bodies, etc.) and to analyze their inter-group and intra-group relations, as well as their relationships with public and private institutions. For instance, politicians might not only be executively or legislatively involved in the sector and reform, but might also have economic interests in the outcome of the project ([Box 2](#)).

Those with considerable influence and vested interests in preventing policy change are the greatest challenge for many projects (World Bank, 2003b: 23). It is therefore important that stakeholder analysis assess formal and informal ties and institutions, norms, and practices (e.g., rangers might accept bribes and breach REDD rules) (World Bank, 2005: 30; World Bank, 2003b: 18). This helps provide strategies, frameworks for consultation, participation, negotiation, and conflict management. If a project is a good fit with the institutional dynamics, benefits can flow and cooperation increases. As a result, the existing level of social capital can be reaffirmed and further developed (World Bank, 2005: 28).

The Vietnam Climate Change DPO (P122667), examined existing and potential ways to ensure participation of multiple stakeholders in developing disaster risk management plans; developing climate change scenarios and strategy; and establishing mechanisms for climate change finance. The Social Development specialists then focused on identifying those being affected by the reform and those affecting the reform, interviewed them to assess background information on policy-making, held workshops and consultation sessions, probed concerns about impacts of the DPO policy changes, and explored suggestions for improvements (World Bank, 2011b: 6; interviews).

POLITICAL ECONOMY ANALYSIS

Political economy analysis is ‘the study of both politics and economics, and specifically the interactions between them. It focuses on power and resources, how they are distributed and contested in different country and sector contexts, and the resulting implications of development outcomes.’ (World Bank, 2011b: 1) Political economy analysis captures the potential ‘benefits, opposition, or distortion of a project by influential stakeholders’ (World Bank, 2003b: 30) and risks which ‘occur when powerful stakeholders act to undermine project implementation or capture project benefits’ (World Bank, 2005: 33).

Political economy analysis is important to PSIA for climate change DPOs as it provides help to understand how ‘ideas, power and resources are conceptualized, negotiated and implemented by different groups and different scales’ (Tanner et al., 2011: 1) and to predict how efficient, effective and feasible a climate change initiative and DPO might be. As climate change is a very complex issue with implications across the whole spectrum of development, political economy analysis is crucial in unpacking assumptions and framing a political view of the policy process and institutions (Tanner et al., 2011: 2; Box 3).

For climate change related political analysis, several key issues should be covered:

- 1) Who has interests in sectors influenced by climate change? Analyze how climate change affects a country’s electoral rules and power structures to predict potential success of mitigation and adaptation measures and changes in power structures on different country levels.
- 2) Who has interests in the area proposed for reform? Analyze power issues and power shares to build up dialogue and to better frame the DPO at the federal, state and municipal levels.

BOX 3. Political economy analysis of Tanzania's charcoal sector.

While charcoal is the single most important energy source for millions of urban dwellers in Tanzania being used by all tiers of society from laborers to politicians dialogue and action on the charcoal sector is politically neglected due to its impacts on the environment and sustainable development. However, there is an urgent need for action to reform the charcoal sector: (i) the policy framework should be made coherent and formal, given the shadow economy causing the government losses of estimated US\$100 million per year; and (ii) the charcoal sector has to become more environmentally and economically sustainable since charcoal use results in significant deforestation.

Assessment: Within the framework of the Forest Conservation and Management Project, the Bank's Social and Environment departments developed a policy note and assessed the main stakeholders and power structures in the Tanzanian charcoal sector and examined who would be opposed to reform elements and why. The Bank team consisted of a multi-disciplinary group and used a mixed-methods approach, with Dar es Salaam serving as the main case study site. The political economy analysis was processed with a Net-Map Process helping develop and understand which actors are involved in a given network, how they are linked, how influential they are and what interests and goals they pursue. Net-Map helped to better ground the assessment, base it on quantitative analysis and facilitated the reporting of data. Furthermore, it provided the team with a validation effect which helped better target the reforms.

Challenges:

- Data: A coherent policy framework governing charcoal production, trade and use does not exist, and reliable statistics on the sector are not available. Moreover, data is very sensitive and a sound analysis difficult. Assumptions and results need to be presented in a very diplomatic manner.
- Corruption: The charcoal sector remains highly informal with regulations either unclear, unenforced, or easily bypassed due to pervasive corruption.
- Stakeholders: Non-governmental stakeholders are not integrated in consultation processes; the government is invested in informal business practices around the charcoal sector and the ministries' authorities are blurred.

Solutions:

- Maintaining objectivity: by using a reliable, mixed-methods validation tool (Net-Map) and diplomatic communication methods to handle sensitive topics.
- Open dialogue with government officials. This leads to an adequate policy framework offering affordable energy sources in the medium term.

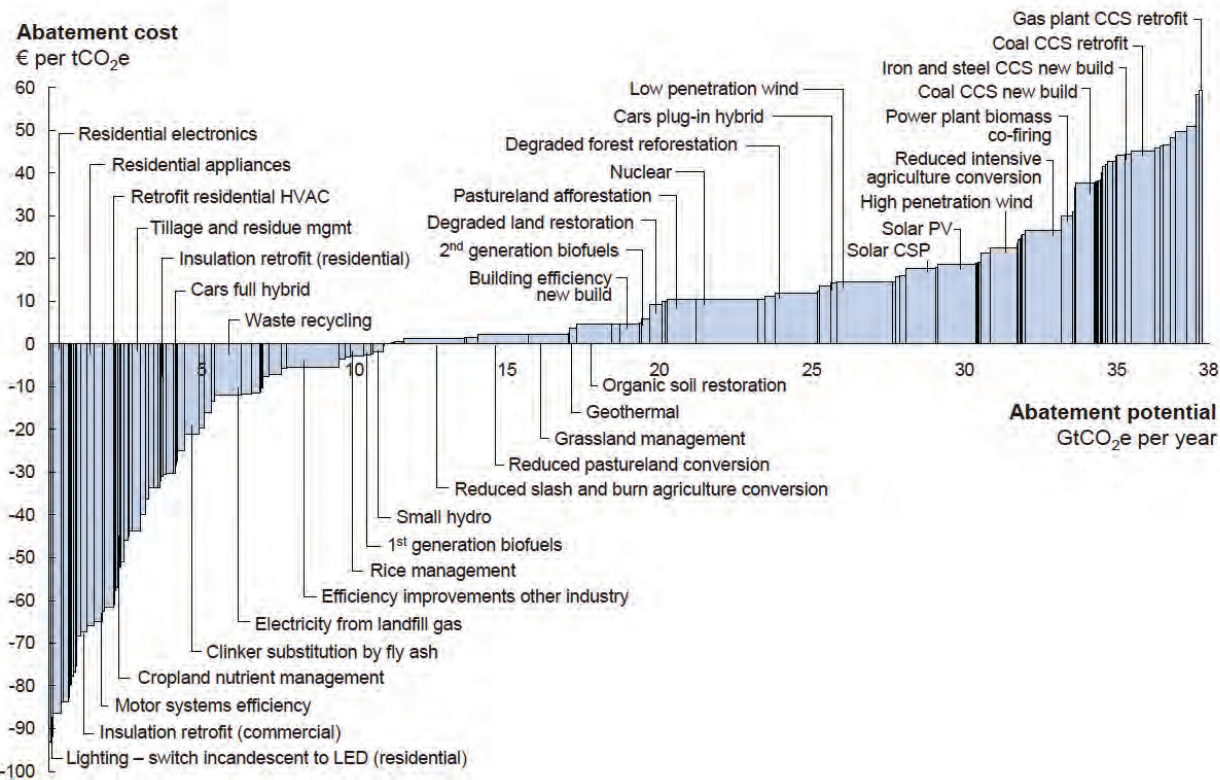
Source: World Bank, 2010e

c) What? Impacts and Transmission Channels

Climate change policy actions can cover a wide range of interventions. As discussed, they encompass long-term overarching instruments such as Low Carbon Development Strategies, National Climate Change Policies, or Adaptation Action Plans. On the other end of the spectrum, very discrete actions such as changes to electricity tariffs or the

suspension of subsidies can be found. To illustrate the swathe of potential policy action, the graph below (Table 4) reproduces the (global) Marginal Abatement Cost Curve (MACC), a tool developed by McKinsey to illustrate the abatement potential and relative cost of investments and different policy options.

TABLE 4. Global GHG Abatement Cost Curve Beyond BAU – 2030.



Note: The curve presents an estimate of the maximum potential of all technical GHG abatement measures below €60 per tCO₂e if each lever was pursued aggressively. It is not a forecast of what role different abatement measures and technologies will play.

Source: McKinsey, 2009: 7



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Each of these climate change policy options not only has certain incremental costs associated with them but also entails a host of socio-economic impacts at different scales. The table below is a compilation of potential positive and negative impacts found in the social assessment sections of past and ongoing climate change DPOs.

Often the lack of robust data will only allow for this tentative assessment. However even a basic screening allows one to raise some red flags that might merit a more detailed analysis.

TABLE 5. Impacts of Climate Change Policy Actions.

SECTORS	ACTIONS	IMPACTS
Adaptation		
Disaster risk management	Monitoring systems and education on natural hazards and the use of these systems; provision of timely information on disasters	<p>+</p> <p>Better preparedness for hazard events and weather changes which helps farmers protect their assets; stability in prices by avoided food shortages; less natural, physical, human, social, and financial risks; creation of employment; educational benefits</p> <p>Meets the medium term objective of integrating climate risk in development planning and strengthening coordination and M&E capacity</p> <p>More accurate information for farmers; improved risk management</p>
Infrastructure enhancements	Restructuring of land; building up infrastructure	<p>+</p> <p>Creation of employment; improved mobility (e.g., market access and to education); better and safer livelihoods; growth in investment</p> <p>–</p> <p>Loss of employment through relocation; possible rise in prices for transportation; migration (which can have both negative and positive impacts, given remittances, family conditions, etc.); health issues might arise through increased use of automobiles and increase in GHG</p>
Land use planning	<p>Shift to drought resistant crops</p> <p>Limitation of activity at certain times of the year in some areas</p> <p>Use of fertilizer or more or less agricultural use of land</p>	<p>Relocation of investments in less flood prone areas, which in turn may produce employment losses in some areas and employment gains in others</p> <p>–</p> <p>Vulnerable population affected such as traditional (indigenous) livelihoods; changes in education facility accessibility; diseases; costs (crops, new instruments for agriculture); impacts on infrastructure (resettlement?)</p>

Water management	Irrigation systems; change of irrigation and agricultural use of land; building of dams; controlling sewer leakage	<p>+</p> <p>Prevention of vector and waterborne diseases, creation of livelihoods; strengthening of resilience and use</p> <p>–</p> <p>Resettlement impact on traditional livelihoods; loss of agricultural land; potential additional labor burden for women</p>
Social Protection	Channeling resources directly to the poor	<p>+</p> <p>Protection against climate shocks; promotional aspects for longer term resilience building; educational benefits; creation of employment; subsidies on needed goods</p> <p>–</p> <p>Transaction costs; political hurdles; risk of dependency</p>
Mitigation		
Energy efficiency, bioenergy use	Investment in renewables	<p>+</p> <p>Creation of employment; more productivity of goods; green growth</p> <p>–</p> <p>Transaction costs; insufficient know-how; high start-up costs; inequalities in receipt of transfers might occur</p>
REDD+ (Reduced Emissions from Deforestation and Forest Degradation)	Change in forestry activities and land-use	<p>+</p> <p>Health (decrease in deforestation); revenues from carbon sequestration for local communities; sustainable growth; change in labor market patterns; increase in livelihoods.</p> <p>–</p> <p>Loss of livelihoods and threat to right of access and use of traditional lands; increase in price of forestry goods - how are prices and costs transferred?; inequitable distribution of benefits possible; lack of capacity to deal with all the complex issues surrounding carbon trade; possibility of displacing logging and land clearing across international borders to high biodiversity areas; corruption/mismanagement of funds; land speculation; opportunity costs of farming alternatives</p>

Source: Stocktaking of past and ongoing Climate Change DPOs; interviews



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Where impacts are more direct and data are available, impacts can be further examined by looking at what elements of human assets and capabilities

they affect. The example below is from a review of a BioFuel Program in India, carried out by OECD DAC.

TABLE 6. The impact on capabilities of target groups.

CAPABILITIES	ECONOMIC		SECURITY		HUMAN		SOCIAL-CULTURAL		POLITICAL	
Stakeholders	Short Term (+/-)	Med Term (+/-)	Short Term (+/-)	Med Term (+/-)	Short Term (+/-)	Med Term (+/-)	Short Term (+/-)	Med Term (+/-)	Short Term (+/-)	Med Term (+/-)
Poor Target Groups:										
Land owning poor	+	+	+	+	0	+	0	+	0	0
Landless poor	+	+	0	0	0	+	0	0	0	0
Women (married, poor)	0	0	0	0	0	0	0	0	0	0
Women (single headed households)	0	0	0	0	0	0	0	0	0	0
Other Stakeholders										
SHG	+	++	0	0	0	+	0	+	0	+
Land owning wealthier households	++	++	0	0	0	+	0	0	0	0

KEY MATRIX 2:	++	+	0	-	--
Strength/direction impact	Very Positive	Positive	Not Significant	Negative	Very Negative

Source: OECD, 2007: 63

THE ANALYSIS OF TRANSMISSION CHANNELS

The assessment of distributional impacts in PSIA relies on an understanding of five transmission channels through which policies can affect the household, poverty threshold, vulnerability and

various stakeholder groups (World Bank, 2002: 3). These include: (1) **employment**; (2) **prices** (e.g., food, fuel, wages); (3) **access to goods and services**; (4) **assets** (physical, natural, human, financial, and social); and (5) **transfers and taxes** (including remittances).⁹

⁹ For further information, please see World Bank, 2003a: 12f.

Certain policies may have an impact on only one of these channels while others require an understanding of a combination of all or some of these transmission channels. It should also be noted that informal transmission channels, such as non-financial transactions are typically not captured by traditional economic analysis tools, and can significantly impact the poor.

Transmission channel analysis of climate change DPOs should look at a variety of factors. For

example, infrastructure enhancements can create or destroy employment, improve access to goods and public services, but they can also lead to a loss in personal assets due to relocation, possible rise of prices for transportation, or an introduction of taxes to make up for the state's infrastructure investments. Furthermore, access does not necessarily translate into improved quality of life since it might lead to exposure to different risks and thus to increased vulnerability.

TABLE 7. Transmission Channels.

Employment (Labor markets)	<p>Are there sectors where employment is likely to become less secure/lower paid? Does this affect household incomes?</p> <p>Is labor mobile across sectors, e.g., if there is an investment in biofuel production, can employers easily move to that field?</p> <p>How are skilled and unskilled workers affected?</p> <p>Is increased labor migration likely? Are children or families going to be affected?</p> <p>Will there be resettlement (e.g., due to dyke building)?</p> <p>Are modified rules (e.g., in use of natural resources) likely to create or negatively affect jobs?</p> <p>Is there likely to be a change in labor market patterns (e.g., creation of jobs through the formation of a sustainable tourism sector or new tourism destinations)?</p> <p>Are reforms likely to influence working sectors of family members working abroad / in a border region or may they lose their job and hence families income?</p> <p>Is there a disproportionate increase in work burden for women, children, or vulnerable groups?</p>
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Table 7 continued

Prices (Production, consumption, wages, food)	<p>Are prices of goods which are produced with environmentally degrading means (and mainly consumed by poor households) likely to increase?</p> <p>Are changes in fees (e.g., wastewater discharge fees to municipalities and industries) likely to be deferred to poor households?</p> <p>Are changes in the energy production sector (e.g., using non-hydro renewable sources and regulate sulfur emissions) likely to raise electricity prices and hit poor households?</p> <p>Are changes in policy or distribution of land likely to influence harvests or affect food security?</p> <p>Is the first time investment for households, e.g., for a change in crops or a new motor for their car due to a policy change, affordable?</p> <p>Is there likely to be a change in nutrition due to a price increase of basic food items? Does this affect the nutrition of children?</p>
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Table 7 continued

Assets	<p>PHYSICAL: Are there likely to be changes in natural resources, infrastructure (and other productive resources owned by individuals, the business sector or the country itself), equipment, labor productivity, land, or reduced income opportunities?</p> <p>Are people's livelihoods going to be affected, e.g., through a change of water level or riverbanks?</p> <p>Are changes in the water or irrigation systems likely to affect the harvest (e.g., through less or more droughts)?</p> <p>FINANCIAL: Will poor households have the means to invest in green assets?</p> <p>Are financial incentives for incorporating environmentally sustainable practices (e.g., for housing) likely to benefit or negatively affect the poor?</p> <p>Are vulnerable people likely to be specifically and positively targeted for financial government incentives/ subsidies?</p> <p>Are livelihoods and asset prices likely to decrease? Do the poor lose asset value?</p> <p>HUMAN: Will poor households be helped to acquire knowledge and educational resources to use new 'green' products which might become mandatory through new laws?</p> <p>Are changes in the water or irrigation systems likely to affect the harvest (e.g., through less or more droughts)?</p> <p>SOCIAL: Are rules, norms, obligations, and trust embedded in social relations changed through changes introduced by the DPO (e.g., through resettlement)?</p> <p>Are market places and other social gatherings affected?</p> <p>How are changes communicated? Are CSOs empowered?</p> <p>NATURAL: Are environmentally provided assets (soil, atmosphere, forests, minerals, water and wetlands) changed, diminished, or otherwise affected?</p>
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Table 7 continued

Taxes & transfers (e.g., remittances, etc)	<p>Will the poor benefit from increased government revenue? How will this money be spent by government and the poor?</p> <p>Are reforms likely to change the current tax burden for low-income families?</p> <p>How may remittances and other private transfers be affected by proposed reforms?</p> <p>Are fees, e.g. for water, going to be increased? Will this affect the consumption of the poor and impact on their livelihoods and health?</p>
Access (to goods and services)	<p>Are changes in public service governance or environmental standards likely to affect people's health?</p> <p>Is physical accessibility likely to be affected, i.e., are new constructions likely to influence households' access to public institutions or services, such as schools, hospitals, etc.?</p> <p>Is newly irrigated land, e.g., through investment in new biofuel fields or after land reforms, easily accessible?</p> <p>Are programs in irrigation, drainage, water supply, wastewater, or sanitation likely to promote reduced overexploitation of water resources and hence the overall, long-term access to water, i.e., what are the distributional effects of water regulation?</p> <p>Is there going to be a change in property rights?</p> <p>Are there changes in security which will influence safe access to services?</p>

Sources: World Bank, 2011b; World Bank/UNICEF, 2011; World Bank, 2003b; World Bank, 2010c, Mexico DPL P110849; Vietnam DPL P122667



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d) How? Methodology

The World Bank has more than ten years of experience in conducting PSIAs with a wide array of tools of both qualitative and quantitative nature.¹⁰

In general, the selection of methods will be guided by the nature of impacts – direct or indirect – and

pragmatic considerations of timeframe, budget and capacity. As climate change policy interventions can span the whole spectrum, it is expected that the majority of the approaches below might find some application in a particular policy setting.

TABLE 8. Considerations in Choosing Impact Analysis Approaches.

		Data/Time/Capacity		
		LOW	MEDIUM	HIGH
Indirect impacts	LOW	<ul style="list-style-type: none"> Beneficiary assessment 	<ul style="list-style-type: none"> Social impact assessment Participatory poverty assessment Benefit incidence analysis Social capital assessment tool Demand/supply analysis Household models 	<ul style="list-style-type: none"> Poverty mapping
	HIGH	<ul style="list-style-type: none"> Social impact assessment Collect more data Use tools in adjacent cells in conjunction with assumptions 	<ul style="list-style-type: none"> Multimarket analysis Reduced form 	<ul style="list-style-type: none"> Social accounting matrices Input/output models Computable general equilibrium Macro-model + micro-simulation

Source: World Bank, 2003a: 19

¹⁰ Further information is provided on the World Bank’s PSIA website and the World Bank’s Social Analysis Sourcebook (World Bank, 2003b). An extensive overview of PSIA tools, key elements, costs, limitations, and applications is provided in the User’s Guide to PSIA (World Bank, 2003a): 49ff.

There are a number of approaches that have been used in the context of climate change analysis and action. Many of those evolve around the concept of vulnerability. Vulnerability is 'a function of the character, magnitude, and rate of climate change and variation to which a system is exposed, its sensitivity and its adaptive capacity' (IPCC, 2007: 883). Vulnerability assessment is a key tool in the global environment change discourse and especially important for distributional analysis as it provides insights into coping mechanisms, resilience, and social impacts of reforms.

Vulnerability assessments deal primarily with the question of impacts but as they aim to identify the various factors that shape vulnerability, they are a critical tool to identify policy interventions, in addition to guiding resource allocation based on chosen indicators and indices. Vulnerability assessments have been carried out at different scales. Skoufias et al. (2011a; 2011b; 2011c; 2011d), for example, have pioneered macro-approaches, looking at long-term global and regional poverty impacts of climate change.

Other initiatives have focused on vulnerability at local levels to identify coping capacities and resilience strategies at household and community levels. These include studies on *Costing Adaptation through Local Institutions* (World Bank, 2011c) and *Area-Based Development for Climate Change* (World Bank, 2011d). These initiatives have highlighted the important role local institutions play in mediating the flow of financial and other resources such as information in relation to climate change adaptation.

At the meso-level, a vulnerability index has been developed in ECA and piloted in Tajikistan (Box 4) :

BOX 4. Climate Vulnerability Index for Tajikistan.

This initiative developed a methodology for a regional level, disaggregated estimation and mapping of the areas most vulnerable to climate change and variability in Tajikistan. It constructs the vulnerability index as a function of exposure to climate variability and natural hazards; sensitivity to the impacts of that exposure; and capacity to adapt to ongoing and future climatic changes. This index can inform decisions about adaptation responses that might benefit from an assessment of how and why vulnerability to climate change varies regionally and it may therefore prove a useful tool for policy analysts interested in how to ensure pro-poor adaptation in developing countries.

Index results for Tajikistan suggest that vulnerability to climate change varies according to socio-economic and institutional development in ways that do not follow directly from exposure or elevation: i.e., geography is not destiny. The results indicate that urban areas in the country are by far the least vulnerable while the eastern mountain zone is the most vulnerable. Prime agricultural valleys are also relatively more vulnerable, implying that adaptation planners do not necessarily face a trade-off between defending vulnerable areas and defending economically important areas. These results lend support to at least some elements of current adaptation practice.

Source: Heltberg et al., 2011

Another methodology that addresses the high level of uncertainty and long time-frames associated with climate change is **Participatory Scenario Development (PSD)** (Bachofen et al., 2009.) This tool aims to ‘identify the effects of alternative responses to emerging challenges, to determine how different groups of stakeholders view the range of possible policy and management options available to them, and identify appropriate public policies and investment support necessary to facilitate effective future actions’ (World Bank, 2010g: 2).

PSD, which has been piloted in a number of countries in the context of the study on the *Economics of Adaptation to Climate Change*, facilitates a participatory process in which stakeholders identify preferred adaptation options based on their lived experience and information provided on local and national climate and economic projections (World

Bank, 2010a: 11). The approach complements top-down estimates of adaptation costs and engages poor and marginalized groups to integrate their concerns and priorities in the discussion. PSD helps identify the most locally relevant impacts of future climate change and variability, and can lead stakeholders to consider potential trade-offs and possible social impacts of actions. Furthermore, as results are based on the effective participation of a diverse range of stakeholders, PSD is seen as valuable contribution to the growing evidence base on vulnerability to climate change (World Bank, 2010a: 12).

The Operational Toolkit on the Social Dimensions of Climate Change (World Bank, 2011f) provides a synthesis of those methods that are particularly suitable for the analysis of the relationships between climate variability and change, and human well-being.



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e) Lessons Learned: Examples of country PSIA for climate change DPOs

Although the portfolio of climate change DPOs is growing rapidly, the experiences with PSIA are still relatively limited. For this reason, two examples of ongoing PSIAs from Mexico and Vietnam are presented below.

MEXICO: STRENGTHENING SOCIAL RESILIENCE TO CLIMATE CHANGE

Mexico is particularly vulnerable to a number of climate change impacts, given its current climate and geography. It is expected to suffer from an increase in average temperatures, a reduction in rainfall and runoff patterns, and an increase in the intensity of tropical storms. However, although climate change threatens sustainable development in Mexico, the government also sees it as an opportunity to foster dialogue and bring the needs of the poor to the forefront of the development policy agenda. In 2007, President Felipe Calderón announced Mexico's National Climate Change Strategy (Estrategia Nacional de Cambio Climático, or ENACC), which put climate change at the center of Mexico's national development policy.

There have been a number of operations prepared by the World Bank in support of Mexico's climate change policy and institutional development, including the programmatic Environmental SALs, the Climate Change DPL and the Environmental Sustainability DPL (both approved in 2008), the Green Growth DPL (2009), the DPL for Adaptation to Climate Change in Mexico's Water Sector (2010), the Forestry and Climate Change Investment Program (FY12), Hydrometeorological Service Specific Investment Loan (FY12), the Climate Change Public Expenditure Review (FY12), the Energy Efficiency

(Supply-side Management) Investment Loan (FY13), and the Ecosystems Adaptation DPL (FY13), which will build on the Strengthening Social Resilience to Climate Change DPL, which is under preparation.

While previous operations did take into account certain social and distributional aspects, PSIA was not a core element. The Strengthening Social Resilience to Climate Change DPO is the first lending operation whose central, explicit theme is the reduction of the impacts of climate change and variability on the poor. It aims to reduce the impacts of climate change on the poor through policies to (a) promote sustainable territorial development and reduce vulnerability to natural disasters; (b) strengthen long-term climate change adaptation planning; and (c) implement pro-poor climate change mitigation measures in the forestry sector.

The PSIA had set two objectives: a) to assess the distributional impacts of disasters and climate-related events in Mexico on social indicators – income, consumption, human development – establishing a causal link whenever possible, with a focus on the poorest households and municipalities; and b) to determine the capacity of various disaster risk management policies and programs to mitigate their expected negative distributional effects. The methodology and central lines of research were determined based on the hypothesis that poverty correlates with higher disaster risk.

The research used both historical data and projections, distinguishing between long-term and short-term effects. The research drew on cross-sectional data for 2,454 municipalities, of which many had experienced natural disasters between 2000 and 2005. In addition, the study analyzed indices (e.g., the Human Development Index (HDI), poverty levels and poverty maps, along with a database on municipal characteristics (geographical, natural, and

socio-economic). Finally, historical rainfall data and municipal level variables to control for geographical, natural, socio-economic, institutional and financial characteristics helped assess the disaster impacts at the smaller scale and thus target the most vulnerable segments of the population.

The PSIA conducted for this climate change DPL is the first of its kind in that it attempts to assess both the distributional impacts of climate risk itself in addition to the distributional impacts of related policies. The study makes use of innovative, mixed-methods approaches. The team consists of a multi-disciplinary skills mix including economists, social development specialists and disaster risk management specialists. An environmental specialist was brought into the team later in the process when it was realized that more inputs on the climate science was needed. It also engages local academic and scientific partners in conducting the analysis.

CHALLENGES AND LESSONS

A key challenge facing this PSIA is the difficulty to draw conclusive findings on distributional impacts due to the unpredictable nature of disaster events and the dynamic nature of climate vulnerability. A lot of data was needed during the analysis, which did not necessarily pose problems in a country such as Mexico, but might be more difficult with PSIA conducted in environments with data constraints.

PSIA team members listed the necessity of having a climate science/environmental specialist on the team from the beginning to get more insights into climate change issues. Furthermore, given the permanently evolving climate change data, the PSIA time frame should be expected to be flexible. Reflecting this fact, the team should not feel inclined



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to give specific point estimates as outcomes, but rather ranges. This will help to keep the PSIA design flexible and adaptable to changes.

In addition, the value of engaging an inter-ministerial working group involving a large number of sectors and stakeholders was highlighted several times in order to enlarge the reach and capacity-building of the PSIA.

VIETNAM: CLIMATE CHANGE DEVELOPMENT POLICY OPERATION

The government of Vietnam has identified climate action as a policy priority and established a multi-sector platform to mainstream climate change adaptation and mitigation. Several programs, such as the National Target Program to Respond to Climate Change (NTP-RCCC), established in December 2008 and covering the period 2009-2015, are intended to integrate climate actions into development strategies, programs, and provide a unified platform. Furthermore, the Support Program to Respond to Climate Change (SP-RCC) is designed as a partnership between the government and donors.

The DPL introduced in 2011 was not only the first climate change DPO in Vietnam, but also the first ever implemented in an IDA country. Furthermore, the DPL's policy matrix was designed in close partnership with the government and in coordination with other development partners, primarily the Japan International Cooperation Agency (JICA), AusAid, and Agence Française de Développement (Afd). This created cross-fertilization among sectors and agencies and aimed to support the government's efforts in fighting climate change and implementing the multisector platform and political agenda on climate change and efficient water and energy management.

The PSIA acknowledged the fact that climate change is a multi-layered phenomenon and aimed to identify the following three layers: 1) What do we know about climate change impacts on the poor and vulnerable in the select sub-sectors, compared to more general climate change impacts in those sectors? 2) How far will the suggested policy reforms address the climate change impacts on the poor and vulnerable? Are there gaps that remain? And 3) What will be the general poverty and social impacts of suggested climate change policy reforms?

The PSIA also aimed to improve the Government's understanding of how the proposed policy reforms could contribute to building climate resilience of the poor, and what adjustments need to be made to ensure that the reforms do not further exacerbate the climate change related issues for the vulnerable groups. For this purpose, the PSIA adopted a phased approach. It started in 2011 with the preliminary research (about three months) and then commenced the second phase, which is focusing on the proposed institutional mechanism for climate change financing whose establishment is being supported under the DPO as well as knowledge exchange on best practices in policy dialogue research and capacity building. The PSIA is expected to be finalized by April 2012.

The PSIA used a mixed-methods approach with strong qualitative research methods. For the first phase, consultants relied on secondary data available from existing studies, reports, databases, consultations, and interviews with key stakeholders (government, donors, academics, NGOs, as well as local farmers and participants in climate change related projects). Open-ended community discussions, key informant interviews, focus groups, observations, and ethnographic field research also took place.

The focus of the next phase of PSIA will be on **strengthening financing mechanisms for climate change**. The establishment of such mechanism is being supported under the DPO in order to enable the Government to allocate resources strategically to priority climate activities. The key objective of the PSIA is to ensure that the planned financial mechanism and criteria for the use of climate change related funds will benefit the poor and be set up in a way that is consistent with sound public investment management standards, and be based on principles of transparency and accountability. This will include assessing the needs and existing mechanisms for resource allocation at the local level, and exploring different social accountability approaches that local stakeholders could use in order to enhance public oversight over the use of climate financing.

This is a new approach which aims to augment future positive distributional impacts of anticipated funding on poor and vulnerable groups. The effort will also include development of basic monitoring indicators to capture the social and poverty impact of the future climate change investment projects as well as politically and institutional capacity compatible framework for a functioning M&E. Given the momentum gained during the phase of the PSIA, and the financing secured through the PSIA MDTF, following up with a combination of fiscal and social aspects was strategically viable and efficient in making the voice of the poor heard.

The PSIA team consisted of social development specialists from the anchor and region, local government stakeholders, local consultants, as well as an anthropologist and local researchers. Furthermore, the TTL of the DPO is an EAP Environment Sector Leader and has been closely involved in the design and implementation of the PSIA activities, and provided his inputs throughout the exercise.

CHALLENGES AND LESSONS

The PSIA highlights the value of ensuring the active participation and capacity building for PSIA and climate change related areas, rather than simple consultation of stakeholders and government partners. In addition, it is critical to recognize that communities are not homogenous and similar stakeholders not unanimous. While investing in genuine dialogue and training is costly in terms of time and resources, it is worthwhile, and this PSIA will serve to inform forthcoming DPOs and future research.

Moreover, close cooperation with the DPO team secured a wide reach and scope of the analysis and kept the government engaged. The high level of attention to and from donors helped elaborate a common social strategy, created an added-value for donors to foster long-term cooperation, and enabled the Bank to stress its comparative advantage and important role as the, 'Knowledge Bank' in the climate change area. The participation of donors and partners in learning events informed them about ways to assess social impacts of policy reforms and led to an application of these methodologies in their activities.



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III. Nuts and bolts of PSIA for climate change DPOs

a) Issues to consider when planning PSIA

These points can be assessed before outlining the PSIA and political economy analysis. They help analyze the framework the project takes place in, effects, stakeholders, processes which need to be undertaken, and hindrances which might occur.¹¹

- Analyze existing and previous strategies and alignment of DPO with these strategies
- Ensure coherence of policies across sectors and scales
- Plan in consideration of time constraints
- Be savvy of external factors which might drive or hinder the demand or implementation of the project or reform
- Take stock of data and research constraints, especially in regard to climate change data
- Analyze capacity of local partners and stakeholders to conduct PSIA and consider introducing learning events for capacity building
- Research on ability of stakeholders to adapt to new structures and consider learning events

- Analyze open or underlying power structures – socially, politically and economically
- Research gender structures, geographic structures, sector-specific structures (education to adopt new technology; gender inequalities; social protection and safety nets mechanisms)
 - Do existing structures and policies contribute to climate risks?
- Assess governance stability – capacity to promote positive impacts, deficiencies which can limit the ability of individuals, household and state to build capacity and to ensure the implementation of climate change policies
- Assess whether interventions realize co-benefits with sustainable development



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¹¹ For further information, please see World Bank, 2011b; World Bank, 2010a; World Bank, 2009; World Bank, 2008a; PSIA Toolkit; World Bank, 2003a; World Bank, 2003b.

- Analyze decision-making processes: Are they inclusive? Are they transparent and accountable; are results monitored and evaluated?
- How powerful and inclusive are non-governmental stakeholders? Are there specific environmental NGOs?
- What is the government's or important stakeholders' communication and disclosure policy? Are there existing mechanisms for public participation?
- Is the culture of potential partner organizations or institutions a good fit for the project's goals?
- Does the organization or government engage in other projects or activities which contradict the 'message' of the planned DPO?
- What is their income and their assets (e.g., physical assets: human capital, capacity to diversify income, links to network such as mutual self-help, and their access to credit markets for consumption, as well as assets to mitigate climate change or climate change induced changes in profits)?
- How strongly are they affected?
- How do they use institutions which might be affected by the policy reform?
- What is their major concern (family, land use, traditional livelihoods, employment, health, forests, nature preservation, etc)?

Assess interests of groups

b) Research questions for stakeholder analysis

These questions can be assessed before outlining the stakeholder analysis framework. They help analyze the actors involved, power structures influencing the project, the actor's interests, and processes which need to be undertaken and hindrances which might occur.¹²

Assess potential vulnerabilities of certain socio-economic groups:

- Who is the **direct target group of the project** (e.g., families, IPs, coastal dwellers, fishermen, forest dependents)?
- What is their standing in society (caste/class, ownership of key assets, health condition/disability, place of residence and vulnerability of livelihood to climate change)?
- What is their occupation (e.g., fisheries, agriculture, i.e., weather dependent jobs)?
- What factors make particular individuals (e.g., forest dependents, coastal dwellers), households, companies, or sub-national regions more **vulnerable to the negative impacts of climate change** (e.g., disasters)?
- Who is the **intermediary target group of the project** (e.g., NGOs, health workers, governmental agencies, market place, public sector, community, indigenous peoples?) How are they integrated in the project?
- Are there **particular interest groups**, governments, institutions or stakeholders that could be identified that might hinder or support the agenda (e.g., utility companies, forest managers)? Why and dependent on what factors (e.g., shadow economies, loss of income, anticipated higher gains with continuation of environmental degradation)?
- **Who is accountable** for failure or success to deliver? Who might want to hamper delivery?
- **Who conducts the major reform process?** Who has **ownership** of the project or reform (e.g., shadow traders, companies, government)? Are stakeholders contracted to

¹² Based on World Bank, 2011a; World Bank, 2010a: 10; World Bank, 2005; World Bank, 2003a; World Bank, 2003b; interviews.

do the institution's work (i.e., might there be a conflict of interest? Who controls and distributes the goods, services and works)?

- o Here, existing surveys, previous experience, interviews, or data sets might help identify answers and project climate change events, obstacles, and potential outcomes

- o Assess previous, current and future governmental strategies and whether international (climate) treaties, previous projects, or future plans might contribute to cross-fertilization

Identify underlying power structures to foresee likely problems:

Assess the information and communication structure:

- **Who disseminates information?** What is the media landscape (e.g., what is its stance on climate change)? Who measures performance, monitors compliance, defines success?
- Are there any participatory monitoring mechanisms and platforms for regular multi-sectoral stakeholder policy dialogue?
- **How do groups, stakeholders and representatives perceive the DPO, the risks of climate change and the implementing agencies?** Do these perceptions contribute to or even strengthen the development objectives? Do they have access to public participation?
- Can the state, governmental agencies or institutions implementing the Bank project count on **support among the affected groups**?
- Do specific **political structures** (black markets, shadow economies, strong lobby groups, or informal actors) influence the implementation process? How strong are they? Are there possibilities of mitigation?
- Can weak stakeholders with positive interest, but low influence, **be empowered**?
- How are 'losers' as a result of the project likely to react?



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c) Sample Terms of Reference (TOR) for climate change PSIA

1. Background

- What is the sociocultural, institutional, historical and political context of the country?
- How did the project come about?
- What other projects did the Bank implement in the region, with what envisaged policy actions?
- What are the DPO's goals?
- What are the social analysis' entry points, i.e., what is the PSIA going to assess (i.e., which sectors, what are the expected positive or negative social consequences)?

2. Objective(s) of the assessment and links to the intended social development outcomes

- What aim the policy actions to do? What are the guiding questions of the analysis?
- What are the sources of vulnerability in the region?
- What is the existing analytical knowledge related to potential poverty and social impacts?
- What are the guiding questions for the PSIA (e.g., knowledge on climate change impacts on the poor and vulnerable)? How do policies address these?
- What specific policy areas are going to be examined?
- What stakeholders are going to be integrated, and how?
- Are there likely opportunities or constraints?

3. Scope of Work

- Broad/ specific
- Break scope down in main points/ chapters to answer to questions posed in Objectives
- Possible expected outcomes:
 - o Literature Review;
 - o Data Assessment and research methods;
 - o Identification of Stakeholders and sub-national actors, winners and losers;
 - o Capacity Assessment;
 - o Recommendations to attain desired social development outcomes.

4. Methodology – Social Impact, and Political Economy and Institutional Analysis

- What methods are going to be used? Literature review? Mixed methods? What consultation processes are planned? How to find out about the most influential stakeholders? How are the transmission channels going to be assessed?

5. Activities

- How does the study come about? I.e., Background research, consultations with partners, staff, direct and indirect stakeholders, ministries

6. Deliverables

7. Schedule / Time frame

8. Reporting

9. Qualifications and Specialized Knowledge of the Consultant

10. Budget

11. Annex (e.g., PSIA review and risk assessment, suggestive bibliography)

Sources: World Bank, 2011a and World Bank, 2003b

d) PSIA budgets and implementation arrangements

Although data may be gathered beforehand, the *length* of the social assessment of a PSIA and Political Economy Analysis may vary greatly by country, depending on the project, length and the size of the team. For instance, unexpected stakeholder resistances or arrangements may require new participation arrangements and scale up costs. Climate disasters that hit while implementing the reform - changing vulnerabilities, the poverty threshold or the stakeholders - might require a reassessment of the PSIA design. **The Social Analysis Sourcebook (World Bank, 2003b) estimates the time for a social assessment to usually three to six months** from preparing the TOR to reviewing the final report (World Bank, 2003b: 63). Fieldwork usually requires one to three months, depending on the complexity of the research methodology and the constraints in the country. It should be noted, that both the PSIA for the Mexico DPO on Strengthening Social Resilience to Climate Change and the Vietnam Climate Change DPO are taking about a year.

Investing in a long-term, robust PSIA and Political Economy Analysis, can help to minimize the

social costs and improve the design and impact of proposed climate adaptation and mitigation investments.

PSIA team: The team conducting a PSIA should consist of several, multidisciplinary team members (e.g., economists, social specialists, environmental specialists) in order to guarantee an institution-wide approach. Depending on the capacity in the country the PSIA is conducted in, research institutions can also be integrated in the team to back the PSIA on data, research capabilities and stakeholder consultations. Furthermore, for larger PSIA, the idea of a south-south or neighbor exchange could be elaborated.

Team members of climate change DPOs pointed out the value of having environmental specialists on the PSIA team to better integrate the climate science aspects. The consultation of environmental specialists is highly recommended as this gives a good overview on transmission channels and climate change related issues. Especially experts in the field which directly relate to the climate change DPO (e.g., an eco system specialist/forestry expert for a DPO affecting mangroves or Miombo woodlands) helps assess social impacts long term and at the micro-level.

Furthermore, a focal point within the country is important, as well as local consultants who help communicate with stakeholders and with the assessment of the political economy aspects. Research institutes with strong capacity, credibility and authority can help disseminate and anchor knowledge built throughout the PSIA in the long-run.

Costs of a PSIA could be reduced by opting for already available data, drawing on national or local networks or research institutes and partnering with projects aiming to research on the same subjects.

Stakeholder consultations costs could be reduced by conducting them virtually (via electronic consultations or text message surveys).



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TABLE 9. Cost Table for a PSIA

Inputs and Outputs ¹³	Small PSIA of \$20K	Medium PSIA of \$80K/ 100K	Large PSIA of \$200K+
Team	1 – 2 (one national, one international).	2 – 4 team members.	Around 5 – 6 team members.
Methodology	Normally single-method, mixed-method in exception.	Choice of Methodology based on data available and accessible.	Mixed-methods approach.
Mission	Unlikely.	Yes, 2+.	Yes, 4+.
Approximate Timeline	2 months (2x20 staff days).	Range: 3 – 12 months.	Range: 6 – 18 months, depending on follow-on implementation and dissemination of findings.
Sample Outputs	Rapid assessment note.	Report and policy note with recommendations.	Comprehensive report. Information and dissemination material for stakeholders, governments on future projects, and Bank networks.

¹³ For a similar table for Political Economy Analysis, please refer to World Bank. 2011b. *How-to Notes. Political Economy Assessments at Sector and Project Levels*, Washington, DC: The World Bank.



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Annex: List of environmental and climate change DPOs reviewed for this note

Country	Name	Description
Colombia	P101301 Sustainable Development DPL 2008	The Sustainable Development DPL supports the GoC's efforts to move toward achievement of the MDGs, particularly Goal 7 which seeks to ensure environmental sustainability. Specifically, the DPL has the following objectives: (i) improving the effectiveness and efficiency of the National Environmental System (SINA); and (ii) integrating principles of sustainable development into key sectors, with a particular emphasis on protecting the most vulnerable groups.
Indonesia	P120313 Climate Change DPL 2010	The project supports the GoI's policy agenda on Climate Change and provides support in three core areas: (i) addressing the need to mitigate Indonesia's greenhouse gas emissions; (ii) enhancing adaptation and resiliency efforts in key sectors; and (iii) strengthening the institutions and cross-cutting policy framework needed for a successful climate change response.
Mexico	P110849 Climate Change DPL 2008	The Climate Change DPL supports the GoM's efforts to mainstream climate change considerations into public policy. The operation consists of policy reforms in three areas: (i) improved analytical basis for policy responses through the submission of a 3rd National Communication to the UNFCCC; (ii) the approval of the National Climate Change Strategy by the government's Intersecretarial Commission on Climate Change; and (iii) the integration of climate change considerations in sector programs.

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Annex continued

Country	Name	Description
Mexico	P095510 Environmental Sustainability DPL 2008	The Environmental Sustainability DPL supports the GoM's medium-term, outcome-based program to promote sustainable development. The overarching objective of the DPL operation is to balance socio-economic development with environmental protection and improvement.
Mexico	P120134 Adaptation to Climate Change in the Water Sector DPL 2010	The objective of the proposed operation is to support the GoM's efforts aimed at strengthening the institutional framework and monitoring capacity in integrated water resources management as well as mainstreaming adaptation to Climate Change in water programs. The proposed DPL supports the government's policy commitment to adaptation to Climate Change in the water sector, including the allocation of institutional and financial resources and strengthening of monitoring and evaluation capacity.
Mexico	P120170 Strengthening Social Resilience to Climate Change 2012	To reduce the impacts of Climate Change on the poor through policies to (a) promote sustainable territorial development and reduce vulnerability to natural disasters; (b) strengthen long-term climate change adaptation planning; and (c) implement pro-poor climate change mitigation measures in the forestry sector.

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Annex continued

Country	Name	Description
Mexico	P121800 Low Carbon DPL 2010	The objective is to support high-priority policy and regulatory reforms that have been identified as critical to achieve Mexico's Climate Change mitigation targets. Policy areas targeted for low carbon development include: 1) increasing renewable energy supply and promoting energy efficiency; 2) improving the efficiency of the vehicle fleet and road transportation operations; 3) strengthening the market for energy-efficient housing; and 4) mainstreaming Climate Change considerations into land-use and forestry.
Morocco	P099618 Energy DPL 2007	The main development objectives of the GoM energy sector reform program are as follows: (i) to help the GoM improve energy security through the development of domestic energy resources, efficient use of energy, and the formulation of a long-term energy import strategy; (ii) to foster competition in the energy market through regional system integration, liberalization of the high-voltage domestic electricity market, and open access of competitors in the petroleum downstream market; and (iii) to reduce government subsidies for petroleum products.
Vietnam	P122667 Climate Change DPL 2012	The objective is to support the GoV in its efforts to address Climate Change by adopting policies and strengthening institutional capacity to promote climate resilience and lower carbon intensity development. With an emphasis on adaptation, the proposed programmatic operation is fully aligned with the priorities reflected in the CPS mid-term progress report.



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