# FINANCING MITIGATION

**Exposing Gender Gaps** in Financing Climate Change Mitigation - and Proposing Solutions









### **Overview**

The relevance of gender issues is not well understood by many practitioners involved in climate change mitigation investments and financing mechanisms. Prevailing approaches to reducing emissions have prioritized scientific and technological measures, often at the expense of social and behavioral considerations. Most of the mitigation projects and funds so far have supported large-scale energy infrastructure and industrial efficiency programs, which are often viewed as mitigation projects with little connection to gender equality or other social issues.

However, public acceptance of low-emission transitions in critical energy, transportation and agriculture sectors requires the involvement of large numbers of people, both men and women. Therefore, integration of gender equality issues in project implementation and benefits can improve their effectiveness and viability.

Too often, women's concerns are not taken into account in climate change mitigation discussions due to prevailing social and political inequities. If women are considered at all, it may be more as victims than as active leaders and participants in solutions. Yet women can be key actors, contributors, stakeholders and drivers of change in climate change initiatives – particularly if they are actively engaged in planning, implementation and decision-making processes.

In response to critiques of decision-makers assuming a 'gender neutral' perspective, there has recently been increased attention to gender equality in climate change initiatives. Gender sensitive decisions in the context of international climate policy now call for consideration of gender in guiding principles, missions and/or criteria for governance of the financial and technology mechanisms, and the adaptation framework; these decisions and others have begun to demonstrate the cross-cutting role of gender in all aspects of climate change. Most recently, governments adopted a new decision on gender balance, which intends to promote women's participation in climate activities, viewing this as a key step toward gender equality.

Going forward, it is important to document the benefits of attention to gender in designing and implementing effective emission reduction initiatives involving both public and private funding. It is especially important to make this information available to financial decision-makers who may have little experience in considering the relevance of social equity factors in investment decisions.

#### GENDER MAINSTREAMING IN FINANCIAL MECHANISMS

Some climate finance institutions, such as the Global Environment Facility (GEF), have already incorporated gender equality principles in their guidelines and methodologies for climate change projects. The GEF Policy on Gender Mainstreaming recognizes that promoting gender equality improves project results in terms of global environmental benefits as well as social inclusion.

The UNFCCC has also begun highlighting the relevance of gender equality in its Clean Development Mechanism (CDM), particularly in a methodology allowing for aggregation of small-scale projects that can help meet women's needs for energy services (e. g. through improved household-level biomass technologies, biogas, solar energy, and off-grid electricity systems) while also achieving significant greenhouse gas emission reductions.

### Lessons learned about gender mainstreaming can be drawn from experiences within GEF and CDM projects reviewed:

- Gender mainstreaming throughout the project is essential to project success results are most effective when gender issues are integrated from the outset.
- Socially disaggregated data intentionally gathered throughout the project cycle supports more effective projects: systematic gender-focused data collection, targets and indicators help to properly analyze and demonstrate the impacts of attention to gender equality in climate change mitigation.
- Economic and social co-benefits for both women and men, help secure national and community support for activities and ensure their long-term viability.
- Integration of gender equality issues affects project efficacy and impact, e.g. by improving the results of large-scale transport and grid-based energy infrastructure projects, as well as small-scale, off-grid initiatives.
- Gender sensitive government and institutional policies are key factors in the formulation of more inclusive climate mitigation measures and investments.
- Many governments, funders, and institutions need guidance on how to incorporate gender considerations in ways that lead to more effective and inclusive projects, in which benefits are shared equitably.

#### Examples of tools that have already been developed include:

- ENERGIA's Energy Project Gender Action Plan
- WOCAN's Women's Carbon Standard
- WEDO's Gender Mainstreamed Social and Environmental Standards for REDD+ checklist tool
- · IUCN's Environment and Gender Index

These types of tools can be adapted to different countries, scenarios and projects, and easily implemented by project developers and practitioners.

The three case studies presented here demonstrate some lessons and provide important examples for decision-makers as new efforts are made to integrate gender considerations into public and private climate mitigation projects and financing.



#### INTRODUCTION OF BIOGAS FOR RURAL COOKING AND LIGHTING

The Nepal Biogas Support Program (BSP), now a CDM project, was initiated in 1992 by the Government of Nepal and the Netherlands Development Organization (SNV) to promote locally produced biogas for cooking and lighting in rural areas. The substitution of biogas for the firewood and agricultural residues currently used as fuels was intended to support improved energy services, reduce deforestation and land degradation, and decrease greenhouse gas emissions (GHGs).

With additional support over the years, the BSP was able to expand its distribution of biogas systems and stoves, and to build up the capacity of private sector enterprises to manage the installations and after-sales services. It was registered as a CDM Program of Activities in 2005, with a goal of installing 200,000 biogas systems.

#### **IMPORTANCE FOR CLIMATE MITIGATION**

The BSP activities registered under the CDM reduce GHGs by avoiding the combustion of non-renewable biomass (wood, dung and agricultural wastes). Expected emission reductions from this program were estimated at almost 2 million tons over the project's expected period of 21 years (close to 50,000 tons of  $CO_2$  equivalents per year).

#### **GENDER CONSIDERATIONS**

Since women are primarily responsible for household cooking and fuel supplies, they benefit significantly from the BSP – especially through time savings (less wood collection), reduced workloads and improved energy services. This opened up more opportunities for women to earn income and increase their economic contributions to the family.

It is often difficult to introduce changes in fuels and technologies; cooking involves important cultural traditions. Analysis of the socioeconomic considerations related to acceptance of the systems by women was seen as important to the success of the program in reducing deforestation and GHGs. Women play important roles in promoting and marketing biogas systems, including by being able to convince other women that it is a good investment.

In 2009, the ENERGIA Network supported a gender assessment of the BSP, which identified gender gaps and recommended measures to increase women's engagement and contributions to the success of the BSP, including targets for women's ownership of biogas systems, and training specifically offered to women. A 2011 analysis of the results of gender mainstreaming the BSP stated that 23 percent of biogas systems were owned by women and 30 percent of cooperatives for financing biogas systems were headed by women. Women were also heading biogas construction companies and were providing after-sale services. By incorporating gender-sensitive indicators in annual user surveys, differences in genderbased roles and responsibilities were highlighted and this led to greater awareness about the benefits of including more women.

#### RECOMMENDATIONS

- Promotion: activities, agents and materials that specifically target both male and female users.
- Training: provided at times and locations appropriate to the needs and schedules of women.
- 3. Extension services: using women agents to reach women users.
- 4. **Finance**: exploring alternative means of finance to enable women to access finance facilities easily.
- Research and development: involving women in the product design and field testing of new designs.



#### RURAL ELECTRIFICATION PROJECT

Mali is a least developed country with the majority of its population engaged in smallscale agriculture in rural areas. The main fuel source in Mali is biomass, but forests are being degraded and there is not enough wood to meet growing energy needs.

With support from the World Bank, the Government of Mali initiated the Household Energy and Universal Rural Access (HEURA) project in 2003 with an overall objective of reducing poverty and promoting economic growth. The project established a rural energy services agency (AMADER) and a rural energy fund (REF) to address technical and financial barriers affecting decentralized energy service companies and attract investors. Because the project removed barriers to adoption of renewable energy technologies that reduce GHGs, the project also received funds from the GEF.

Between 2003 and 2012, the project provided renewable energy to more than 75,000 homes and 1300 institutions. Mali's rural energy access rate increased from 1% in 2000 to 17% in 2012. The project also created 735 permanent jobs and 1,689 temporary jobs. New energy services supported welding, ice making and tailoring workshops, bakeries and food processing, internet cafes, and telephone charging stations. The project also contributed to increased working hours for existing businesses.

#### **IMPORTANCE FOR CLIMATE MITIGATION**

Currently Mali does not produce large amounts of GHG emissions because of its low levels of economic development; most of its emissions are produced from burning wood and charcoal. However, there is potential for increasing the adoption of renewable energy technologies to support a low-carbon development pathway.

In 2010 Mali was chosen as one of the pilot countries for the World Bank's Scaling Up Renewable Energy Program (SREP). It is using those funds to continue to expand the use of key renewable energy technology, focusing on electricity production and productive energy uses. Through support from SREP, by 2015 the Mali government plans to achieve a rural electrification rate of 55% with a 10% contribution of renewable energy to the country's energy mix.

#### **GENDER CONSIDERATIONS**

In 2011, the project undertook a gender assessment, which revealed that there was significant potential to increase the economic benefits from the project by promoting more use of electricity in women's businesses.

The gender assessment included consultations in 12 communities involved in the project, and compilation of two hundred household surveys concerning gender differences in access to energy, household activities and control of energy services. The findings revealed that fewer women than men made use of electricity for enterprise development. The assessment recommended that HEURA encourage more direct participation of women in electrification programs by ensuring both women and men are involved in the design and implementation of projects and have access to technologies and credit facilities.

In response to recommendations of the gender assessment, AMADER prepared a gender and energy action plan, partnered with UN Women to develop ways of promoting income-generating enterprises for women, and appointed an official gender focal point responsible for ensuring that gender equality is integrated into its projects.

The gender mainstreaming adopted by AMADER was carried over into low-carbon development activities under the SREP.

#### RECOMMENDATIONS

- Promoting participation of women in activities contributing to low-carbon development in communities increases their success, e.g., through greater public acceptance and utilization of renewable energy technologies.
- 2. Making the business case for gender—i.e. mainstreaming gender optimizes project successes—resulted in measures being taken to institutionalize and sustain systematic changes, including consistent data collection, research, assessments and analyses that integrate social, economic and environmental issues.



#### **RAPID TRANSIT SYSTEM IN BOGOTÁ**

In Bogotá, Colombia, the chaotic mass transit system, consisting of thousands of independently operated and uncoordinated mini-buses, led to traffic congestion, long commuting times, high levels of air pollution and frequent accidents. The city could not afford a subway system, so instead, established a Bus Rapid Transit system. The TransMilenio rapid transit system was initiated in 2000, introducing interconnected bus lines, dedicated lanes for largescale buses, and elevated stations for fast and efficient entry and exit of passengers. Improving the city's mass transit system reduced the use of private vehicles, thereby lowering GHG emissions. In 2006 the project was registered as the first transport project under the CDM.

The system is a public-private partnership, with the city taking responsibility for building the new bus stations, lanes and terminals and private companies investing in large-scale fuel-efficient buses, concessions and operations management.

The new system substantially improved the overall quality of life of city residents. Passengers save an average of 223 hours annually in travel time, with reduced air pollution and fewer traffic accidents.

The project also supported new employment opportunities, generating close to 40,000 direct and 50,000 indirect jobs.

#### **IMPORTANCE FOR CLIMATE MITIGATION**

Bogota's mass transit system reduces GHGs by providing alternatives to travel by private cars and mini-buses, and decreasing traffic congestion. From 2001 to 2008 the new system reduced  $CO_2$  emissions by over 1.6 million tons. In 2012 emissions reductions were expected to reach almost 250,000 tons per year, with an expected total of over 5 million tons of  $CO_2e$ by the end of the 21 year operating period. The income from selling CERs is expected to be between USD 5 and 33 million for the first period, with significantly more due to continued expansion of the system. This will cover a substantial portion of the financing needed for building additional infrastructure.

#### **GENDER CONSIDERATIONS**

To attract new riders, attention was given to gender differentiations, including designating seats to women and children and having separate entry doors for pregnant women and other vulnerable riders. Women are particularly concerned about safety, and in 2009 UNIFEM (now UN Women) supported a campaign to decrease sexual harassment on crowded buses. UN Women subsequently recommended several strategies to address women's safety concerns. Overall, attention to gender-differentiated considerations helped to maximize the riders and use of the system, contributing to TransMilenio's success. It is currently being viewed as a replicable model by other countries. The system also created direct and indirect job opportunities, which supported social and economic development. In an effort to balance the dominance of men in the workforce, the system prioritized employment of different groups, including single mothers. As a result, women make up 24% of the total workforce. If one includes activities such as fare collection and bus washing then women comprise 70% of the workforce.

#### RECOMMENDATIONS

- 1. **Including gender-differentiated concerns** in the design of transit systems helps to maximize ridership and customer satisfaction.
- 2. Public officials, investors and other stakeholders should be made aware of the practical, financial, social and environmental benefits of integrating gender concerns into transport projects, planning processes and decision-making.
- 3. As replication of the TransMilenio system is considered by other cities, there are opportunities to implement gender-sensitive measures from the start to maximize emission reductions as well as development benefits.

## Conclusions

As an understanding of the relevance of gender issues to effective climate mitigation projects expands, so too does the demand for more sophisticated methods to incorporate gender equality in a comprehensive and effective manner. The findings from these three case studies offer some key lessons and recommendations, while also indicating that a more rigorous methodology and systematic data collection is needed to support climate finance decision-makers in integrating gender equality into mitigation projects. As institutions such as the GEF and the UNF-CCC work to incorporate gender equality principles in their guidelines and methodologies, there is an increasing number of requests for tools to address gender issues in international climate change mitigation planning, implementation and evaluation processes. Governments, too, have indicated the need for more guidance on how to initiate, and maximize the contributions of, gender-sensitive approaches to climate-related projects. It is time to step up efforts to meet this demand in order to ensure that financing for climate change mitigation produces effective and sustainable outcomes by investing in and prioritizing gender equality.

#### **ADDITIONAL READING**

Africa Regional Office (AFTEG) (2003). Mali Household Energy and Universal Access Project Project Appraisal Document.

Aguilar, Lorena et al. (2013). *Gender Review of the CIF, Version* 11, Global Gender Office of the International Union for the Conservation of Nature.

Bajgain, Sundar and Shakya, Indira (2005). *The Nepal Biogas Support Program:* A Successful Model of Public Private Partnership for Rural Household Energy Supply.

Biogas Sector Partnership–Nepal (2009). Gender Mainstreaming in the Biogas Support Programme.

Dahal, C (2000). Impact of Biogas on Household Activities in Rural Communities of Tanahun District, Nepal.

East Consult (2004). *Biogas Users Survey, 2003/04: Final Report,* submitted to Alternative Energy Promotion Centre, Nepal.

ENERGIA (2012). Building a Framework for Gender-responsive Energy Projects and Policies.

Gender Action, Oxfam and WEDO (2011). Governing Climate Finance: What Will Work for Women.

Global Environment Facility (2013). Mainstreaming Gender at the GEF.

IUCN (2013). Environment and Gender Index (EGI).

Karlsson, Gail and Ana Rojas (2013). The Benefits of Gender Balance in Climate Change Mitigation Investments and Sustainable Energy Initiatives, ENERGIA.

Quesada, Aguilar (2013). From research to action, leaf by leaf: getting gender right in the REDD+ social and environmental standards. WEDO and REDD+ SES Secretariat (May 2013).

Schalatek, Liane (2012). Climate Change Financing for Gender Equality & Women's Empowerment: Challenges and Opportunities, Heinrich Böll Foundation.

Shakya, Indira (2011). *Gender Mainstreaming – The Biogas Program Nepal* Power point presentation December 13, 2011, ENERGIA Network meeting. http://www.energia.org/knowledge-centre/energia-international-conference/

SNV – Netherlands Development Organization (2011). Gender Mainstreaming in the Pakistan Domestic Biogas Program.

Tamrakar, Nigma (2007). Strategy on Gender Equity and Social Inclusion for Biogas Support Programme.

UNDP (2012a). Gender and climate finance.

UNDP (2012b). Bogota, Colombia Bus Rapid Transit Project- Transmilenio. Case Study (Transportation). UNDP, Special Unit for South-South Cooperation.

UNECE (2010). BRT Bogota (Colombia): TransMilenio System, Powerpoint presentation.

UNFCCC (2011a). Clean Development Mechanism PROJECT DESIGN DOCUMENT FORM (CDM-SSC-PDD) – Version 03 Biogas Support Program – Nepal Activity-3.

UNFCCC (2012b). CDM and Women.

UNFCCC (2012c). Clean Development Mechanism Project Design Document Form Nepal Biogas Support Program.

UNFCCC (2012d). Clean Development Mechanism Project Design Document Form BRT Bogotá, Colombia: TRANSMILENIO Phase II to IV.

UNIFEM (2009). Campaign to Prevent Harassment on Public Buses in Bogotá.

UN Women (2013). Safe Public Transit for Women and Girls.

UN Women (2012). Optimize energy use and improve women's usage of energy services in Mali.

WOCAN (2013). Women's Carbon Standard.

World Bank (2013). Implementation Completion and Results Report: Republic of Mali for a Household Energy and Universal Access Project.

CO-AUTHORS Nathalie Eddy, Rachel Harris and Gail Karlsson PER REVIEWERS Sandra Freitas, Cate Owren, Veena Ravichandran and Ana Rojas DESIGNER Neha Motipara, Two Chairs Consulting PHOTOGRAPHY David Snyder, Cover; Bartosz Hadyniak, Nepal; Michele Alfieri, Mali; and inFocusDC, Colombia