

# WOMEN ARE WINNERS TOO – CLIMATE CHANGE MITIGATION INITIATIVES THAT TIP THE BALANCE

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**Country: Cambodia, Lao PDR, Viet Nam**

**Sector: Renewable Energy**

## CHALLENGE

Women play a key role in supporting households and communities to mitigate and adapt to climate change. Across the developing world women's leadership in natural resource management (NRM) is well recognized. Through this leadership role and experiences, women have acquired important knowledge that will allow them to contribute positively to the identification of appropriate adaptation and mitigation techniques, if only they are given the opportunity.

At the same time the effects of climate change are more severe on women than men because of their differing roles in society due to gender-norms and women's weaker socio-economic status. Patterns of gender and social relations mediate the impacts of climate change. Specifically in the focus countries, gender discrimination is still widespread:

- At intra-household level and therefore household decision making level, women's access to and control over (domestic) assets and resources is still limited;
- At community level, women participate less than men in social events and communal political management structures;
- At policy (decision making) level, women are under-represented and policies are not gender responsive;
- At labor market level, women have fewer opportunities for education and job placement.

Furthermore, women have limited mobility and already high workloads –combining NRM activities with their household responsibilities. It is also women who are most seriously affected in many ways by climate change which threatens women's livelihoods due to their dependence on natural resources. Furthermore given the tasks women take up in the household, the lack of access for women to information on climate hazards, the fact that they prioritize the health of nutrition of other family members over theirs and multiple other reasons, they are at a higher risk of suffering from health problems or even death, and have reduced education opportunities which all increases their economic and social dependency on their male counterparts. In turn, these disproportionate vulnerabilities to climate change can exacerbate gender disparities and gender inequalities.

Women tend to express more pro-environment opinions, have a better acceptance and understanding of the causes and consequences of climate change, and possess unique knowledge and skills that can help to mitigate and adapt to it compared to men. Because of their traditional duties as handlers of water, fuel and waste resources, women play a key role in climate change mitigation solutions. Since women are household energy managers, energy users and energy suppliers, and are also often energy-consuming entrepreneurs, including them in energy-sector decisions can help ensure more effective use of resources.

The Asian Development Bank's Regional Technical Assistance Program "Harnessing Climate Change Mitigation Initiatives to Benefit Women" (Regional Technical Assistance 7914 or RETA 7914) seeks to utilize gender responsive mitigation pilot projects to inform national governments in the Mekong area about the design of larger and sectoral mitigation projects and to prepare for accessing climate finance funds, such as the Green Climate Fund (GCF). As of mid-2014, RETA 7914 is being implemented by SNV in Cambodia, Lao PDR and Viet Nam in collaboration with the Institute for Global Environmental Sciences (IGES) from Japan. Funding for the RETA7914 comes from the Nordic Development Fund (NDF).

The RETA7914 is aiming for the following outcomes:

- Gender concerns mainstreamed in national or sub-national climate change strategies, action plans, and mitigation plans.
- Effective mechanism supporting stakeholder engagement process and gender equitable benefit distribution identified for replication.
- Three pilot projects successfully implemented, local tools and mechanisms in order for women to access the (co)benefits of climate mitigation initiatives – providing hands-on examples about how to put policies in to practice.

## CLIENTS

This program works with a large number of clients. For the policy work the main partners in Cambodia are the Gender and Children's Working Group (GCWG) which is part of the Ministry of Agriculture, Forestry and Fisheries (MAFF) For the pilot, there is close cooperation with multiple private sector partners in the advanced clean cookstove sector in a number of provinces aiming to provide access for households to advanced cooking technologies.

In Lao PDR the Ministerial Partner is the Department of Disaster Management and Climate Change (DDMCC) which is part of the Ministry of Natural Resources (MoNRE), the National Designated Authority (NDA) for the GCF and the Designated National Authority (DNA) for the approval of Clean Development Mechanism (CDM) projects. For the pilot, the project is focussing on the development of women-owned improved cookstove producers in partnership with individual producers, the Lao Disabled Women's Development Center (LDWDC) and with the Association for Rural Mobilization and Improvement (ARMI) as an implementing partner. This pilot is building upon the work done under the EU SWITCH-Asia Funded Improved Cookstoves Project.

In Vietnam the project has partnered with the Quang Binh Province Urban Environment and Development One Member Limited Company (URENCO) and the Dong Hoi Women's Union (DHWU), in which the latter is managing the daily operation of a revolving fund. The pilots are focussing on the development of women-led biogas mason enterprises that sell and construct biogas systems at livestock farmers' households. Furthermore it provides training to biogas end-users in how to use the biogas and bioslurry products for income generation activities.



## METHOD/SNV INTERVENTION

For the output 1 and 2 related interventions, a long assessment period has taken place' and because the project is focussing at National, Sub-National and District levels of Government the interventions are different in each country. These first interventions have been undertaken where applicable in close cooperation with our partner IGES.

The overall aim is to:

- Ensure sufficient capacity is developed in the project partners to contribute on a strategic level to the topic of Climate Change Mitigation and/or Gender Inclusion.
- Ensure the inclusion of Women's Representatives, Groups, Institutions or Agencies in policy development in relation to Climate Change in general
- Enable multi-stakeholder dialogues and support network development for those groups; explore the opportunities for, and facilitate where possible multi stakeholder dialogues; and develop knowledge and communication products to facilitate this process.
- Support development of a Climate Finance Development Plan and the implementation of part of this plan to ensure long term inclusion of gender sensitive approaches when accessing Climate financing, emphasising the value and importance of equal access to (co-)benefits that result from Climate Change Interventions.
- Develop a tool to support the development and/or the evaluation of gender-responsive Climate Change Mitigation programmes to access climate funding through, for example, the GCF. A gender sensitive and responsive NAMA templates is an example, and so is the Climate Change Project Development guidance note, which is a compilation of gender questions designed to support DNA/NDAs in the development and/or review of gender-responsive climate change initiatives.

- Develop a potential pipeline of opportunities in line with the ongoing developments.

The three mitigation pilots aim to increase women's participation in the renewable technologies value chain. For this reason, an assessment was carried out to understand the barriers or gender inequalities that may reduce the chances for women to join in the project implementation. The assessment also identified ways to ensure that both women and men participating in the value chain could support each other's efforts, seeking synergies where these are most needed.

In **Cambodia**, activities are undertaken through piggybacking on the Advanced Clean Cooking Solutions (ACCS) project (2014-2015) and the ENDEV funded Market Acceleration of Advanced Clean Cookstoves in the Greater Mekong Sub-region (Cambodia, Laos and Vietnam) project (2015 – 2019) bringing proven advanced biomass cooking technologies to Cambodia for the first time. Advanced Biomass Stoves (ABS) are highly efficient and significantly reduce particulate and carbon monoxide emission levels, compared to other traditional and improved stoves on the market in Cambodia. At present the ABS are imported to Cambodia as a final product; however a female-led assembly line will be set up in Phnom Penh during 2016.

The project is working directly with private clean energy technology distributors to identify the best distribution models which will enhance women's participation in the distribution of ABS stoves. Women's mobility is one of the main challenges faced, as current distribution models for renewable energy technologies rely heavily on door-to-door sales. The project team has assessed different measures to overcome this barrier, including the creation of women-owned distribution and awareness raising centers, encouraging women to travel together to other villages, and introducing them to village leaders to engage in the marketing of the ABS. The initial calculations suggest that women distributors could have an annual net profit of US\$50 per month (equivalent to about a third of Cambodia's minimum wage). selling about 7 stoves per month based on part time work, and would increase depending if they work fulltime. The RETA7914 pilot is expected to reach 350 customers through 20 female sales.

In **Lao PDR** the Improved Stoves (ICS) Programme, is a well-established and successful initiative, with over 80,000 ICS produced and with a demand higher than the existing production capacity. The value chain gender assessment revealed the possibility of addressing this bottleneck through the increased participation of women-led production centers. To ensure success, the project team has developed specific trainings for women, to increase their production, management and accounting skills, and facilitate access to credit for investing and expanding production centers. One of the pilot project interventions is the collaboration with the Lao Disabled Women's Development Center (LDWDC), a technical training center focusing on disabled women and/or women with disabled family members to take care of, based in Vientiane. LDWDC will include ICS production techniques as part of their on-going training curriculum and will create permanent positions within the center to become both a production center and a training center, offering new income generation opportunities to disabled women and their families, who are among the most vulnerable in Lao society. The aim is the creation of 2 women-led production centers and 4 women-led stove bucket producers. By the end of the intervention it is the aim that those producers will have sold 4,000 ICS and 9,000 buckets.



In **Vietnam**, the pilot project is being implemented under the umbrella of the Biogas Program for the Animal Husbandry Sector in Vietnam (BP), a program under Ministry of Agriculture and Rural Development This pilot project is specifically under the program in Dong Hoi District, in Quang Binh

Province. The pilot project gender assessment revealed that women in Dong Hoi are involved in construction work, assisting masons – mostly their husbands - by carrying heavy loads of construction materials. The assessment also revealed that although women are the main users of the domestic biogas and the bioslurry, they do not participate in the users' trainings. Within this framework, the objective of the pilot project is to increase women's participation in the value chain by training women to become skilled masons, capable of constructing biodigesters together with their husbands. Moreover, women masons are also being trained in management and accounting, skills necessary for running a small biodigester production company; they will also be trained in marketing and will be encouraged to provide the users' training to the owners of biodigesters, to ensure that the women in the households will have the necessary skills to use and maintain the digesters.

Moreover, the project will develop trainings to support women's understanding of the different productive uses of biogas (not only related to cooking for human or animal consumption, but also to provide lighting within the household, heat for incubators, etc.) and bioslurry. Women will be encouraged to create or improve their agriculture-based micro-enterprises and establish women's support groups to receive coaching and peer-to-peer support. These groups will be organized with the support of the Dong Hoi Women's Union.

A revolving fund has been established with support from the ADB, managed by the Dong Hoi Women's Union through which the introduction of biogas technology in the province is further stimulated. The aim of the program is to install 300 digesters, both composite model and the fixed dome models, by the end of 2016.

## OUTCOME

The official project outcome is: Improved enabling environment for gender-sensitive climate change mitigation policies and finance in the target countries.

One-and-a-half years into the project, a few clear examples can be given to indicate that the project is moving towards this target, for example:

- In Cambodia the RETA has supported the GCWG with the inclusion of relevant Climate Change (Mitigation) focus areas in the Gender Mainstreaming Policy and Strategic Framework (GMPSF) 2016-2020 (re-named from Gender Mainstreaming Policy and Strategic Plan (GMPSF) 2015-2018) which has recently been finalized and signed off. This document, used throughout the whole MAFF ministry, now specifically addresses a range of climate change-related issues and identifies 6 indicators that include climate change considerations.
- In Lao PDR a capacity building workshop was held, during which gender-inclusive adjustments were proposed for the Climate Change Action Plan (CCAP) 2013-2020 that will be revised in the 2016-2017 period. The document sets out the actions that have been identified to deliver on the Lao PDR Climate Change Strategy (CCS) 2010-2020, and is the document that will potentially guide the development of climate change mitigation projects. Gender entry points were identified for each sector that can be included in a mid-term formal review of this plan, and/or can shape the development of gender-responsive climate change mitigation projects.
- Another example from Lao PDR is the participation of the DDMCC representatives in multiple events focusing on Gender- and Energy-related topics during the COP21 in Paris in December 2015, as (key note) speakers.
- In Vietnam it was identified that both gender and mitigation were missing from the district Climate Change Action Plans, as there was a strong and obvious focus on Climate Change Adaptation interventions in the province. A multi-day training, in partnership with IGES, has enhanced the understanding of the relevant stakeholders and the CCAP is currently being revised by the local government to address both mitigation and gender.
- At a pilot level the year 2015 has focused on the set-up of the interventions and the capacity building among the female entrepreneurs, leading to a situation in Vietnam in which around 100 digesters have been delivered by the female-led biogas mason enterprises. In Cambodia the 31 trained sales agents have delivered 135 stoves to date. In Takeo Province 5 female 2 male sales agents were trained recently and in Prey Veng Province 20 women and 4 male sales agents.
- In Lao PDR the 2 initial bucket producers are in full production and the LDWDC is coming up to speed aiming at production of 500 improved stoves per month by March 2016.

## IMPACT

The long term project impact as aimed for by the donors and all stakeholders is Improved access to low-carbon technology and climate financing improves livelihoods of women in urban and peri-urban areas in the target countries.

Through the ongoing activities such impact in the longer term seems to be on the horizon, and implementation during 2016 is aiming at sustainable handover to local partners and sustainable scale up of initiatives. The real impact needs to be measured at a later stage in the project.

## LESSONS LEARNED

Lessons learned from working with government partners to introduce gender considerations into their strategic framework.

- 1. Timing is everything.** When working at the policy/strategy/planning level within government, it's important to understand the review and renewal cycles that determine the schedule for decision-making and possible intervention. Because these cycles are typically quite long (5-10 years) it is essential to identify possible entry points that fit with project time frames in order to get traction and have real opportunities to propose the integration of new approaches.
- 2. Define clear boundaries to limit uncertainty and risk.** Existing government processes and practices tend to be highly structured and risk averse. This means that interventions from outside bodies may be viewed with concern simply because they involve unfamiliar people and practices. By clearly defining a limited field of intervention (a plan, a sector, a timeline) the apparent risk can be minimized while relationships are built and trust established so that new concepts can be introduced and accepted.

Lessons learned from the pilots that focus on women as sales agents, producers or entrepreneurs.

- 1. Lack of essential skills often excludes women from key positions.** For example; in the biogas value chain in Viet Nam, many women work as assistants, carrying water and materials, and supporting masons. Because they lack the masonry experience necessary to be eligible for the National Biogas Program's training for biogas construction team leaders, less than 1% of over 1,600 trained micro-enterprises are female-led. The project addresses this issue with basic masonry skills training prior to the standard 2-day training sessions.
- 2. A similar barrier is preventing women from getting the most out of cookstove production.** It is well documented that women benefit from the better air quality provided by cleaner stoves, but less well known is the fact that women in the Mekong region often play a role in manufacturing the stoves but to a lesser extent own the stove production centers. The project is therefore supporting female-led production centers, start-ups, and potential access to investment loans. In Cambodia, specifically, transport and safety are major concerns for women sales agents in the cookstove value chain. By introducing the sales agents to local governments, and facilitating good relationships in the district, the project is helping to overcome these difficulties.
- 3. There are consequences to a policy of inclusion.** Including women equally in the value chains may involve costs for additional training, tools, or meetings. While most people see this as a burden, few actually make a financial calculation to learn what additional income or impact, equal inclusion of women generates. Furthermore the equality in opportunities brings additional co-benefits often not sufficiently explored in traditional (more male based) programs.
- 4. A bias against women in leading or technical roles.** In Viet Nam or Lao PDR, for instance, a commonly heard opinion is that biogas construction or manufacturing clean cookstoves is too hard for women. This is frequently expressed without consulting the target group, or realizing that women already do a lot of the heavy physical work in the sector. Furthermore, the cultural tradition that men work with men results in local governments or entrepreneurs selecting only male partners or trainees, excluding women. Through community awareness workshops, adjusted selection procedures and gender sensitization of key partners, the project is addressing this discrimination.

## TESTIMONIALS

Cambodia - *"When I was firstly contacted in July 2015, I hesitated to engage in distributing the stove as I never had any experience and I do not trust the product's quality. When I attended the first meeting, followed by the training, I became confident. Unexpectedly, I sold 24 stoves till now, generating around 192 USD. My husband appreciates my work and sometime helps me to do household chores when I am not around because I promote the stove",* said Ms. Un Lim-sale agents.

Cambodia - *"In my village, we do not have options besides using traditional cookstove. I feel proud that I can provide better options to my villagers. Through distributing the ACE1, I feel I contribute to development of my villagers through helping them to have better health, save money and time",* said Vannak-sale agents

Cambodia - *"When I used traditional stove, I had eyes irritation/eyesight, so I often visited the doctors to get my eyes cured. I decided to buy this stove when I attended the village meeting and learned that ACE1 is smokeless and especially it can be used with firewood where I can find it free and easily around my home. After I have used this stove for around 2.5 months, I feel my eyes getting better and I can save money and time visiting doctors",* said Un Srey Leak

Cambodia - *"I bought the stove because I can both cook and take care of my eight year old granddaughter.*

*Besides it is smokeless and safe, it is also convenient to move from one place to another place. As I found it is a risk to leave my granddaughter sleeping in the house alone, I now can move the stove to cook where I can see her",* said a user.

Viet Nam - *"I feel very confident in earning half as much again before and happy to see our BME growing up"* Ms. Uyen, Biogas mason on the job of building digesters

Viet Nam - *"Biogas digester changes our life, we feel very healthy without the stench of manure. My vegetable garden is always green in use of bio-slurry, moreover I don't need to work hard for firewood procurement"* - Ms. Xuan, Biogas end user on the benefit of biogas

Viet Nam - *"Though joining the training, we have learned a systematic knowledge of Climate change and the mean of Gender inclusion. Hereafter, we as DONRE will work on the existing Climate change action plan to integrate appropriate mitigation solutions and include women in those solutions."* Mr. Nguyen Duc Cuong, Chief of Dong Hoi City Department of Natural Resources on the capacity building for city leaders

Lao PDR: Ms. Pock, 31, owns her bucket factory in Savannakhet: *"I am very glad to have started my own producing factory, which is specialised in metal buckets that are part of the improved cookstoves. I deliver to nearby ICS producers who face a high demand from the market. Also my husband supports the business now, whereas previously he was a migrant labourer in Thailand and I missed him a lot. I think he never needs to return to work over there again and we can stay together."*

Lao PDR: Ms. Bounaly, 21, LDWDC worker in Vientiane, *"First I thought ICS production is a very hard and dirty work, so I was not really sure I would like this, but now I'm proud to be part of this work. The ICS production gives me a chance to generate income and I don't have to ask for money from the family anymore"*.

Lao PDR: Ms. Chai, 22, LDWDC worker in Vientiane, *"This project gives an opportunity for disabled people to generate income so they are not a burden to the family anymore"*.

Lao PDR: Ms. Em, 19, LDWDC worker in Vientiane, *"I'm proud that I can work on ICS production, even it seems not to be the kind of work for women, my experience proved that I can work as a man"*.

Project time line: June 2014 – December 2016

Team composition of 16 team members

- 3 SNV Sector Leaders are involved of which one as team leader, and the other two as country coordinators.
- 4 international consultants focussing on Gender and Social Inclusion, Institutional Development, Climate Finance and Monitoring and Evaluation.
- 9 National experts; three Gender and Social Inclusion experts, 3 national program officers, a climate finance expert, a Low-Carbon Technology/Biogas Expert, a Small and Medium Enterprise Development Expert and a Micro Finance expert.

Total Project Value USD 3,000,000, of which USD 1,791,205 was allocated to SNV.

More information can be found at:

<http://www.adb.org/projects/45039-001/main>

<http://blogs.adb.org/blog/getting-women-actively-involved-climate-change-mitigation>

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