

Small Livestock

Climate-smart, environmentally sound, economically empowering, gender-fair and transformative agricultural enterprises in Cambodia





Introduction

Climate change is largely the result of man made actions, related to deforestation, industrialization and change in land use (IPCC, 2001). It is also well understood that the poor are more vulnerable (including and sometimes especially women) to the impacts of climate change. The differential impacts of climate change on men and women is rarely contested. Limited adaptive capacity is an important vulnerability factor in Cambodia. Addressing poverty, improving access to climate resilient innovations, related education and training and accessible and affordable financial services can contribute to enhancing adaptive capacities of rural communities. Livelihood options which are gender fair, which ensure equity and are at the same time deemed climate resilient, can go a long way to empowering women in Cambodia.

The Asian Development Bank (ADB) has pursued gender equality in Cambodia through Gender Action Plans (GAPs) in its agricultural, rural development and related operations. Gender related loans and grants have involved the monitoring and documentation of gender equality results, ensuring that the poor men and women participate in and benefit from, project activities. Promoting economic development to generate economic opportunities and improving women capabilities and access to economic opportunities are important policies to promote gender equality and inclusive growth. The ADB Strategy 2020 highlights gender equality as a key driver of change.

The ADB support GMS Biodiversity Conservation Corridors Project (BCC) Grant 0241-CAM

The Biodiversity Conservation Corridors Initiative (BCCI) was developed to enhance the management of forest ecosystems in the countries of the Greater Mekong Subregion (GMS). The GMS Governments, with support from ADB, have identified the most important biodiversity conservation landscapes in the GMS that are vulnerable to increased development pressures and environmental degradation. In Cambodia, the project is addressing the fragmentation of the biodiversity rich forest landscapes of Koh Kong and Monduliri provinces that may impair their ability to provide critical ecosystem services necessary for sustaining local livelihoods and investments in hydropower,

transport, water and food-security enhancing sectors. The project is promoting sustainable resource use, and restore and enhance these productive landscapes. It will do so through conservation and development activities.

The design of the Cambodia BCC project takes a multipurpose, sustainable, biodiversity landscapes approach. The project covers 22 communes (12 in Monduliri and 10 in Koh Kong) located across 10 districts with a total population of approximately 68,048 (2008 census) in both provinces and households numbering just over 14,000. The project in both Koh Kong and Monduliri provinces is predominantly in mountainous areas covered with protected forests, national parks, and wildlife sanctuaries. An estimated 2,600 households will benefit from the project with diversified livelihood assets and/or income generating opportunities, of which about 25% are indigenous peoples of Monduliri largely from the Phnong group, and 50% are women (*Project Administration Manual, 2015*).



Why the pitch for native chickens?

The rural and peri urban poor in Cambodia are entrepreneurial. What they lack is opportunities, credit facilities, and technical guidance. Small-Scale Chicken Raising is a promising, short cycle activity which generates quick results. Consumers in Cambodia have demonstrated a growing interest in indigenous (native) chickens for meat and eggs. Prices are high for such products but supplies are inadequate and unpredictable. Indigenous breeds are preferred because of their taste, and meat color (yellowish not pale white meat). Though their eggs are smaller, they are also preferred and in fact, more expensive than commercially produced eggs. Local chick production provides the poor in Cambodia with a special opportunity for economic empowerment.

Unfortunately, many native breeds are slowly and steadily vanishing. These native breeds need to be saved for future generations, e.g. Sampov, Skouy, Kork, Tmart, Kandong, etc. We can save these breeds by identifying them and bringing them to our villages to multiply and promote (agro-biodiversity conservation through promoting their sustainable use). The body weight after 3-3.5 month is between 1.1-1.25 kg and egg production is optimally at 50 to 75 eggs a year. But the cost of production (capital needs) is also lower. Markets and prices are better.

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VILLAGE DEVELOPMENT FUNDS: SUPPORTING CLIMATE-SMART AGRICULTURE

The initial establishment of the Village Development Funds (VDF) was an important component of GMS Biodiversity Conservation Corridors Project (BCC) project (Grant 0241-CAM) which contributes to achieving the BCC project: livelihoods and infrastructure. The project was directed by two Project Implementation Units (PIUs), namely General Directorate of Local Community (GDLC) of the Ministry of Environment (MoE) and the Forestry Administration (FA) of the Ministry of Agriculture, Forestry and Fisheries (MAFF). Technical assistance and training for communities for this component was provided jointly by the International Institute of Rural Reconstruction (IIRR) and Cambodian Centre for Study and Development in Agriculture (selected as service provider). The initial contract of VDF training assignment (Contract No. CAM2015 08-A3-1) started on 20th February 2016 and continued until 31st December 2018. In March 2018, BCCP Executive Agencies approved additional funds which added more inputs for coaching and monitoring VDFSGs to build their capacity sufficiently to manage the funds, and providing chicken production technical assistance to develop new business opportunities and improve economic condition of the project in targeted communities. Due to the need for strengthening of both VDFSGs and native chicken raising activities, in May 2019, BCCP Executive Agencies again approved a no-cost extension for another two months (Contract Amendment No. 2), starting from 10th May 2019 to 10th July 2019 which has since finally ended.

Village Development Funds and Saving Groups (VDFSGs) were organized in associated villages under Community Protected Area (CPA) and Community Forestry (CF) in Mondulkiri and Koh Kong provinces. A total of thirty-seven (37) VDFSGs were established during August-December 2016 across the 9 CPAs and 14 CFs in the two target provinces of which, twenty-one (21) VDFSGs were established in CFs and sixteen (16) VDFSGs in CPAs. Saving groups were set up as a pre-condition for the communities to receive VDF grant from BCCP. While the Village Development Funds were used to support a wide range of livelihoods, chicken raising was singled out for special attention and technical support. Specialized training was provided for the establishment and management of the VDFSGs. Coaching support was provided to chicken producers in order to improve coordination and organization of production and marketing.

HOW WOMEN'S EMPOWERMENT STACKS AGAINST A CHICKEN PROJECT

The recently published Women's Empowerment in Livestock Index (WELI), the result of a collaborative effort between researchers of the International Livestock Research Institute and Emory University, is inspired by and builds on the Women's Empowerment in Agriculture Index (WEAI), developed by the International Food and Policy Research Institute in 2012. WELI's development seeks to overcome the limitations of WEAI in assessing women's empowerment in areas where livestock is the dominant practice for livelihood.

WELI proposes assessing women's empowerment by quantitatively exploring six domains (detailed below). The pilot's findings suggest that the tool is appropriate for the assessment of households where livestock is the primary agricultural activity, and is especially useful for measuring women's empowerment over time.

Although WELI still needs further validation, it is useful to explore how local chicken production led by women in developing regions stacks up against WELI's six empowerment domains.

- 1. Decisions about agricultural production:** an extensive review of small-scale poultry and food security in resource-poor settings found substantial evidence that women are responsible for decision-making in regards to household chicken production, even if the household is male-headed. Anecdotally, Dr. Robyn Alders, who has worked extensively on village chicken production, has observed that increasing chicken flocks and sales of hens and roosters allow women to buy goats of their own – diversifying their livestock (and diets), and demonstrates changes in access and control of assets typically associated with men in rural settings.
- 2. Decisions related to nutrition:** the team behind WELI found that women's decisions relating to nutrition in the household are a reliable indicator of women's empowerment. Proper control of poultry diseases, along with upskilling women in poultry farming, may translate into the permanent availability of chickens and eggs, contributing to more nutritious, high quality meals. Moreover, even if women sell the chickens and eggs they produce, part of the revenue is usually invested in increasing the quantity and variety of food available in their households – once again enabling families to access better quality diets.
- 3. Access to control over resources:** women's access to resources, particularly land and credit, is limited in rural settings, severely undermining their access to large livestock and other agricultural activities. Women can easily access the low-input nature of extensive and semi-intensive systems of village chicken

production which is of vital importance because women, along with children and elders, are usually at higher risk of food insecurity. Chickens, therefore, represent an effective turn-around that overcomes, in part, the inequitable access of women to loans and property compared to men.

- 4. Control and use of income:** when women have complete control of their income, they invest up to 90% in their households or communities. Men, in contrast, spend less than 50% of their income in these ways. Providing women with chickens, husbandry and health training may empower them to profit from the activity, investing not only in food diversity, but also in greater access to health, hygiene and access to education for children, which are vital to breaking vicious circles of poverty and under-development.
- 5. Access to and control of opportunities:** although most women engaged in village chicken production do so to secure household nutrition, these birds may become a profitable business opportunity for them. Local chickens are usually preferred by local consumers as these are considered 'natural' products of better quality in comparison to commercial breeds of poultry. The high demand for village chickens translates to high market prices and the willingness of traders to travel long distances to collect and sell these birds. The cultural value of village chickens allows for their quick commercialisation, which eases the engagement of women in this business practice. Compared to men, women livestock keepers have less access to information and inputs, including feed or vaccines. Since infectious diseases pose significant threats to village chicken production, interventions to prevent them are essential. In this line, Kyeema Foundation, an NGO that promotes village poultry production for improved livelihoods, has performed extensive work in making a thermotolerant vaccine against Newcastle disease (a devastating disease of village chickens in most of the developing world) available and accessible. Kyeema Foundation has also trained many women vaccinators in different countries, thus promoting gender equity in rural settings and broadening the opportunities of development associated with chickens.
- 6. Workload and control over time:** quite remarkably, village chickens place little demand on women's time as these birds excel in scavenging for their food, escaping predators, and sustaining a natural turnover of the flock, as hens can get broody in conditions where commercial breeds of chickens would not. The autonomy of these chicken systems allows women to have adequate time for other relevant context-specific responsibilities they might have.

For more information on Women's Empowerment in Livestock Index, refer to: Chicken and women's empowerment: Why the New York Times is wrong by Juan Pablo Villanueva Cabezas. September 7, 2018. Devpolicy.org.

Description	Number of demo farmers				Location		
	# of demo farmers in Koh Kong	# of women in Koh Kong	# of demo farmers in Mondul kiri	# of women in Mondul kiri	# of village	# of commune	# of district
Broiler demo farm	16	9	14	6	29	16	8
Chick demo farm	8	6	7	5	12	9	7
Total	24	15	21	11	41	25	15

Figure 1: Number of demo farmers and locations.

Climate is changing and with rising temperatures and heavier rain (or long droughts), modern chicken hybrids will be affected. Growth will be slowed and egg production will drop. Increased antibiotic and hormone use is expected. Native chickens tolerate climate change better. Their meat is safer and a healthier option because consumers are expected to demand tastier and more healthy alternatives for chicken meat in the future.

What was achieved?

The Biodiversity Conservation Corridors Projects (Grant 0241-CAM) has supported a native chicken project in Mondul kiri and Koh Kong provinces of Cambodia. The project involved financing of demonstration units of broiler farms and chick production farms spread across districts and communes providing a geographically spread out network of demonstration farms. While the Native Chicken Project was always viewed as climate resilient income generation project aimed at empowering the vulnerable, it has emerged as being particularly relevant to women in the communities with two-thirds of the initiatives being women led. Women members of the household played a

prominent role, often leading the efforts across the value chain. Growth was demonstrated over the period. It has emerged as a climate resilient agriculture option that women took leadership in. a new economic entrepreneurship opportunity. These native breeds are hardier and resilient because of years of natural selection under harsh and variable conditions in backyard methods of raising.

Families have been engaged in transformative livelihoods that brought them to link with markets. Clusters have emerged in most villages, unleashing engagement of a range of stakeholders across the value chain. In most cases, the focus has been on local food systems thus create new producer-consumer linkages within communes and between neighboring communes.

Key messages from the Native Chicken Project (with validation from the literature)

1. The potential contribution of rural women to climate mitigation by being part of the economic cycle is not sufficiently exploited. The economic empowerment through climate adaptation can foster economic growth, promote socio-economic development, reduce poverty, keep environmental problems in check, and increase potential for adaptation which benefits both men and women (research gate).
2. Less attention is paid to the potential that lies in the combination of climate mitigation adaptation and the economic empowerment of rural women. Yet mitigation and adaptation activities offer opportunities to advance the economic empowerment of rural women.^[1] Measures are needed to promote the economic participation of rural women to integrate into adaptation initiatives. Concrete promising measures combined with advisory services and financial aid.
3. Small livestock have always long been viewed a vehicle that puts families on the pathway out of poverty and out of danger when it comes to economic shocks. Livestock policies favor the poor and have slowly been shown to be effective in lifting families beyond mere subsistence, especially if these efforts are supported by provision of training and education and improved participation in livestock markets.
4. The Native Chicken Production Project have evolved to being a very powerful tool to transform the lives of men and women in local communities in Mondulkiri and Koh Kong. Two-thirds of chicken raisers are women. Short gestation enterprises provide special windows for efforts to economically empower women (and men) in rural communities. These enterprises need to be induced, nurtured and/or “incubated” with technical support, funding, provision of necessary hardware and links to markets (incubators feed processing equipment such as grinders) and technical supervision.
5. In the ABD BCC project, 41 villages in 25 communes (15 districts in each Mondulkiri and Koh Kong provinces) were set up. At least 30 Native Chicken Meat (Broiler) projects were set up with 15 chick and egg producing facilities. These were the core component of a systems that supported other small scale native chicken projects. The initial 44 farmers served a farmer-led learning centers aimed at generating spill overs to others within the villages and within the commune. A special effort was made to ensure that the three training had at least 50 percent women participants. The result has been that two-thirds of the new entrepreneurs are women. Farmers received technical training on chicken raising: more than 400 farmers (242 women) received training, and 562 farmers (399 women) learned from success demo farmers through expose visits and field day events. An assignment team (half a dozen IIRR/CEDAC staff) provide on-site and targeting technical support and guidance in establishing these commune-based clusters.

[1] Mbah, N.E., Mgbenaka, R.N., and Onwubuya, E.A. 2013. Approaches to Economic Empowerment of Rural Women for Climate Change Mitigation and Adaptation: Implications for Policy. *Journal of Agriculture Extension*, 17(1): 23 July 2013.

[2] Eva Galvez Nogales. 2020. Agrobased clusters in developing countries: Staying competitive in a globalizing economy, FAP.

This effort to target 16 communes provided some form of spatial concentration of economic activity (farmers value neighbors engaged in similar activity. In this case, an innovative way of raising native chickens that were previously free ranging).

6. Clusters create income and employment opportunities helping families move out of poverty (as the literature suggests). The notion of clusters is closely related to competitiveness and innovation. An agro-based cluster is a concentration of producers and associated set of actors across the value chain, addressing common objectives, challenges and pursuing market opportunities. "Clusters are argued to be crucial for small scale farmers and agri-businesses as they engage in higher productivity and more market-oriented and higher value-added production".^[2] Clustering facilitates innovation and can nurture and ignite a cycle of development. As result of the growing interest in chicken raisers, farmers in some communes have brought shredders and grinders: small mechanization is increasing efficiency and reducing costs of feeds. This is the virtuous cycle of development that can be unleashed by climate resilient enterprises.
7. Limiting investments of this nature (spatial distribution across communes) will reduce the risk of "saturation" while ensuring that the carrying capacity of agroecologies is not overexploited. Environmental impacts can occur, for example, if too many chicken enterprises are located within a particular village. Having them spread out not only reduces the risk of price failure but also reduces disease risk and contamination of the environment with animal waste, etc. Relying on naturally sourced feed, with a reduced reliance on external commercial

feeds, also ensures a smaller carbon footprint (a green enterprise). Spatial concentration of enterprises must environmental impact considerations.

8. Small to medium scale, small livestock systems not only have a small carbon footprint, but they also support local food systems. Short market chains (most buyers are local, i.e. within the commune) provide better links between producers, local retailers and consumers. Safe and healthy food for consumers is ensured, as no antibiotics and hormones are utilized). With proper housing and a reliance on native chickens, small farmers reduce the risk of disease and the need for chemical additives.
9. Small livestock productions systems deserve more attention and consideration, if social inclusiveness is an important objective in assistance. Social protection via livelihood enterprises interventions is now better valued as a result of the lessons from COVID-19 (about overreliance on global and regional market chains). A new awareness of health considerations is expected to further nurture an interest in high quality food, locally sourced and considered safe, healthy and nutritious. A new set of opportunities has emerged for men and women in rural areas of Cambodia.

The goals of improved food security, economic benefits and adaptation to climate change are integrated in rural livelihood strategies, producing co-benefits to climate change mitigation, biodiversity conservation and poverty reduction.

Harvey, et.al. 2014. Wollenberg, E.K., Higman, S., Seeberg-Elverfeldt, C., Neely, C., Tapio-Bistrom, M.L. & Neufeld, H. 2012. CCAFS Policy Brief 6, Copenhagen.

SNAPSHOTS



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