



Action Research on Climate-resilient Livelihoods for Land-poor and Land-Less People

Integrated Community-based Adaption in the Mekong Delta(ICAM)
An Australian Aid initiative - managed by CARE on behalf of AusAID



About CARE

CARE is a leading humanitarian organization fighting global poverty. We place special focus on working alongside poor women because, equipped with the proper resources, women have the power to help whole families and entire communities escape poverty. Women are at the heart of our community-based efforts to improve basic education, prevent the spread of disease, increase access to clean water and sanitation, expand economic opportunity and protect natural resources. We also deliver emergency aid to survivors of war and disasters, and help people rebuild their lives. In fiscal year 2013, CARE worked in 86 countries around the world, implementing long-term programs to fight poverty, responding to humanitarian emergencies, and advocating for policy change to improve the lives of the poorest populations.

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- Strengthening and building individual, organizational and institutional capacities
- Building partnerships to facilitate long term sustainable change
- Working to empower women and their communities
- Supporting policy development and implementation through advocacy and dialogue

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More about CARE's work on climate change: <http://www.careclimatechange.org>

The full report from the ICAM Project Action Research on Climate Resilient Livelihoods for Land-poor and Land-less People was developed by Tine Rossing, International Consultant and translated by Mai Thi Kim Hoang, national consultant. This version is a summarized version of the report for wider dissemination.

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Acknowledgements

The full report from the research was prepared by Tine Rossing (Study Team Leader and International Consultant). It draws significantly from the hard teamwork carried out with the ICAM team below (including Mr. Phan Trong Luat) and Ms. Mai Thi Kim Hoang (national consultant) during this action research consultancy. Ms. Hoang also translated this report into Vietnamese from English.

In addition, the author would like to thank the following CARE colleagues for providing helpful feedback and suggestions as part of a peer review process:

- **ICAM team:** Miguel Coulier (Community Based Adaptation Technical Advisor), Ms. Dang Tran Thi Trang Nha (Sustainable Livelihoods and Market Development Senior Program Officer), Mrs. Nguyen Thi Thuy Linh (ICAM Project Manager) and Ms. Tran Phan Thai Giang (M&E and Partnership Senior Program Officer).
- **CARE in Viet Nam:** Mrs. Nguyen Thi Yen (Disaster Risk Reduction and Climate Change Program Manager) and Eric Debert (DIPECHO Disaster Risk Reduction Program Manager).
- **CARE Australia:** Edward Boydell (Climate Change Advisor CARE AUS), Tracy McDiarmid (Disaster Risk Reduction and Resilience Advisor CARE AUS) and Rachael O'Mara (Senior Program Officer - Asia Pacific CARE AUS)

Invaluable contributions were also made during the Criteria Meeting, Validation Workshop, the community field visits and the interviews with key informants. The author would also like to extend her appreciation to all the people in An Giang and Soc Trang provinces in the Vietnam Mekong Delta who participated so generously in these meetings, the interviews and focus groups conducted for this analysis. This publication is funded by AusAID.

Acronyms

ADB	Asian Development Bank
AusAID	Australian Government Overseas Aid Program
CBA	Community-based Adaption
CCRD	Centre for Rural
CSOs	Civil Society Organisations
CVCA	Climate Vulnerability & Capacity Analysis
CCWG	Climate Change Working Group
DARD	Department of Agriculture and Rural Development
DFID	Department for International Development
DONRE	Department of Natural Resources and Environment
DRR	Disaster Risk Reduction
FAO	Food and Agriculture Organization of the United Nations
GDP	Gross Domestic Product
GIZ	Deutsche Gesellschaft fur Internationale Zusammenarbeit
GTZ	Deutsche Gesellschaft fur Technische Zusammenarbeit
INGOS	International Non-Governmental Organisation
IPCC	Intergovernmental Panel on Climate Change
ICAM	Integrated Community-based Adaptation in the Mekong
ICEM	International Centre for Environmental Management
i.e.	id est(latin for 'that is')
IUCN	International Union for Conservation of Nature
Ha	Hectare
HCMC	Ho Chi Minh City
HH	Household
MDR	Mekong Delta Region
mm	milimeter
MoNRE	Ministry of Natural REsource & Environment
NGO	Non-Governmental Organisation
PWD	People with disabilities
SLR	Sea Level Rise
TIR	Terms of Reference
UN_ISDR	United Nations Office for Disaster Risk Reduction
USAID	The United States Agency for International Development
VND	Vietnamese Dong
WWF	World Wildlife Fund

0. Executive Summary

The densely populated, low-lying Mekong Delta Region (MDR) is one of the most vulnerable areas to climate change in the world. Climate change is likely to result in temperature, precipitation and storm changes, which will contribute to further land and ecosystem degradation, saline intrusion, drought, flooding, and changes to human and animal disease patterns. These climate changes and physical impacts will have serious consequences for existing and future livelihoods in Viet Nam, particularly for the agriculture and aquaculture sectors and for land-less and land-poor, women and ethnic minorities.

In order to assist the vulnerable communities in Viet Nam to adapt to the emerging climate change effects and improve their climate resilience, CARE in Vietnam is implementing the AusAID-funded *Integrated Community-based Adaptation in the Mekong* (ICAM) Project. The Project is focused on three poor communes in An Phu District (An Giang Province) and two poor Communes in Vinh Chau District (Soc Trang Province). The project is specifically targeting the most vulnerable in the two provinces, namely land-less and land-poor households, with a special emphasis on women, ethnic minorities and people with disabilities (PWD) through livelihood, disaster risk reduction and capacity building support.

A ‘**climate resilient livelihood**’, in this research, is defined as *a livelihood which when exposed to climate shocks and stresses, has the capacity to resist, absorb, accommodate to and recover from the effects of the shocks and stresses in a timely and efficient manner, including through the preservation, restoration and where possible, improvement of its essential basic structures and functions*. This entails that the livelihood be compatible not only with the *current* but also *future* context within which it is operating.

Taking the definition and context into account, a set of criteria has been developed to help the Project identify livelihood options that are climate resilient. These ‘unpack’ livelihoods in terms of their sustainability and climate resilience.

Overview of Climate-resilient Livelihood Selection Criteria (abbreviated version) (Source: Tine Rossing)

Criteria category	Criteria
I. Sustainable Livelihoods Criteria	
1. Economic Compatibility	1.1. Market Demand & Access
	1.2. Financial Investment & Risk
	1.3. Skills and Technology
2. Institutional Compatibility	2.1. Regulations
	2.2. Fiscal Policy
	2.3. Program Assistance
3. Socio-cultural Compatibility	3.1. Local/Indigenous Knowledge
	3.2. Suitability for the poor
	3.3. Suitability for Women
	3.4. Suitability for Ethnic Minorities
	3.5. Suitability for People with Disabilities
	3.6. Location
II. Climate Resilient Livelihood Criteria	
4. Climate Compatibility	4.1. Resilience to <i>Existing</i> Climate Change & Impacts
	4.2. Resilience to <i>Future</i> Climate Change & Impacts
	4.3. CO ² Emission Impacts

Criteria category	Criteria
5. Environmental Compatibility	5.1. Biodiversity Impacts
	5.2. Sustainable Resource Use
	5.3. Suitability for Ecosystem Shifts

The analysis carried out in this research indicates that a large majority of the existing livelihood options for the land-poor and land-less would not be climate resilient in the longer run without any major changes to techniques and practices or to the way they are carried out. All the existing *natural resource-based* livelihood sectors are already negatively impacted by climate change and will get hit increasingly harder in the future. More particularly, the agriculture, animal husbandry and aquaculture sectors already are and will likely continue to suffer, depending on the local context, such as location, crop/animal mix variety, etc. Upstream in **An Giang**, increases in temperature, flooding and river erosion, coupled with a decrease in freshwater (both in terms of surface and groundwater) will constitute the biggest challenges to the vital rice and vegetable production and freshwater fish farming. Downstream by the coast in **Soc Trang**, saline intrusion, coastal erosion and drought will impact on both soil and water resources, jeopardizing the important saltwater shrimp farms and onion production, regardless of whether production is carried out at commercial/ large-scale or subsistence/ small-scale. In addition, some of the key industrial sectors, such as the timber/wood processing and garment industries, are also depending on natural resources, so they will suffer from climate change impacts as well. As a result, the negative impacts from climate change will reach beyond the ‘traditional’ natural resource-based livelihoods.

A number of existing but also new agriculture, aquaculture, animal husbandry, handicraft and other livelihood options were reviewed to apply the selection criteria against. They were rated and ranked in detail according to the criteria and the information available from the research. The top four ranked livelihood options were in the agriculture and handicraft sectors.

At first glance, the most suitable, quickest and easiest livelihood options on the list appear to be:

- **Azolla production:** azolla production had a long production history in Viet Nam before chemical fertilizers were adopted. It was used to fertilize rice production and can be grown in paddies during the wet season. The plant grows quickly and is highly nutritious animal feed or plant fertilizer. This option would likely only be accessible to households with land and water.
- **Floating vegetable gardens** (onion & squash): floating vegetable gardens are easy and inexpensive to develop and are very suitable for the landless poor, provided they have secure access to public freshwater bodies.
- **Organic mushroom production:** mushroom production is also easy and inexpensive to develop and provides a great use for livestock waste and field crop waste. Again, it is most appropriate for households with land since an enclosed space away from the home is required. They can also be grown under stilt houses but in limited quantity.
- **Water hyacinth and embroidery handicraft business** among the Cham people: both handicraft livelihood options are suitable for the land-less and land-poor and even PWD but they require design, craft and/or marketing skills, which may take time to develop. These skills are already developed to some extent among the Cham people, so the livelihoods may develop quickly.

The remaining livelihood options are agriculture, livestock or aquaculture based. These options require more land, water, money and time to develop and so may not provide a “quick win” for many land-less or land-poor.

However, again this conclusion is situational, since some farmers may already be undertaking some aspect of these livelihoods (e.g. fish farming) and hence may be able to adopt the incremental activities (integrated duck-fish farming) fairly easily.

Perhaps the most difficult or risky venture could be the mangrove nursery, which will depend on government or NGO funding to develop demand for mangrove seedlings, since it will be these organizations who are likely funding the restoration of mangrove areas in Viet Nam. However, if a medium-term or long-term contract can be obtained by a household or group of households, this venture might be feasible or if a connection can be established with an ongoing programme.

A number of specific recommendations for future planning and implementation of each proposed resilient livelihood option has been provided in Annexes 1.1-1.11. Each annex provides a short description of the proposed livelihood and the rationale for promoting this particular livelihood option, information about best practices/ lessons learned from implementing this livelihood elsewhere, and also recommendations for implementation of the proposed options by the ICAM project and its partners in An Giang and/or Soc Trang provinces.

Specific recommendations include:

- Fill information gaps regarding the proposed climate resilient livelihood options during the ICAM CBA planning process and planned Value Chain and other technical analyses.
- Continue to explore how to make existing climate-vulnerable livelihoods more resilient to climate change.
- Continue to explore how to make the proposed climate resilient livelihood options more gender-responsive.
- Advocate for more flexibility and customization of loan programs for various target groups through the Social Policy Bank and local mass organizations, like the Women’s Union and Farmers’ Union.
- Establish connection between livelihood implementers, climate scientists and relevant departments in DARD and DONRE.
- Enhance knowledge and practice of DARD’s agricultural extension services on climate change and climate resilient livelihoods.
- Increase information on climate change, its impacts and how these affect livelihoods.
- Increase information on market supply and demand and prices.
- Support both registered and informal farmers’ and handicraft community groups.
- Monitor and evaluate the resilience of a given livelihood regularly.
- Further fine-tune the climate resilient livelihood criteria



1. Introduction, including project background

The densely populated, low-lying Mekong Delta Region (MDR) is one of the most vulnerable areas to climate change in the world. Climate change is contributing to land degradation, saline intrusion, ecosystem degradation, hotter weather, abnormal drought, irregular flooding, and changes to human and animal disease patterns. A rapid participatory assessment carried out during the design of this project confirmed that climate change is already significantly affecting the lives and livelihoods of the people in the MDR. This assessment and previous studies confirmed that poor households, ethnic minorities, disabled people and women are among the most vulnerable to disasters and climate change.

To assist these vulnerable communities to adapt to the emerging climate change effects and improve their climate resilience, CARE in Vietnam is implementing the AusAID-funded *Integrated Community-based Adaptation in the Mekong* (ICAM) Project. The Project is being implemented in three poor Communes in An Phu District (An Giang Province) and two poor Communes in Vinh Chau District (Soc Trang Province) from August 2012 until December 2014.

Implementation is conducted in partnership with the Women’s Union of An Giang and Soc Trang provinces and technical departments. The project implementation also

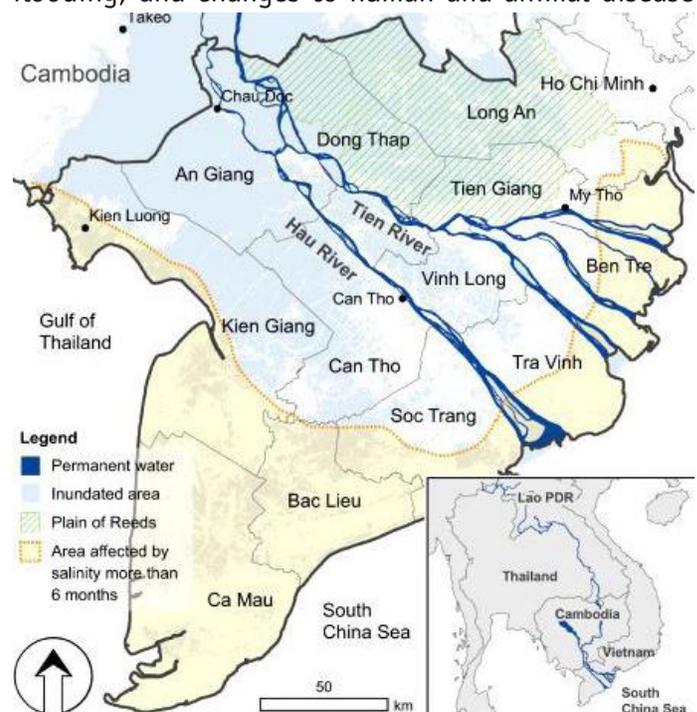


Figure 1-1: Map of the Mekong Delta with An Giang and Soc Trang provinces, indicating water flows
(source: MoNRE 2009)

involves other civil society partners, namely the Centre for Rural Communities Research and Development (CCRD).

The project is specifically targeting the most vulnerable in the two target provinces, namely land-less and land-poor households, with a special emphasis on women, ethnic minorities and other vulnerable groups, through achieving the following three expected outcomes:

1. Communities and local authorities have improved capacity to undertake gender-sensitive analysis and planning for community-based adaptation (CBA) and disaster risk reduction (DRR);
2. Improved community resilience through the implementation of sustainable, community-level, integrated CBA and DRR interventions that benefit vulnerable people, particularly women; and
3. A strong evidence base and strengthened civil society provide a foundation for the scale up of community-based, equitable and gender-sensitive adaptation in the MDR.

In 2012, the ICAM Project carried out a rapid Climate Vulnerability and Capacity Analysis (CVCA) as part of the project design and the baseline study. The project has developed the methodology and tools for broader CBA planning in the two provinces, and trained the trainers and facilitators for this process. The CBA planning has commenced and it requires strong grounding for appropriate and effective project support to implement climate resilient agriculture and non-agriculture livelihoods. The ICAM Project, therefore, recruited a team of an international (Team Leader) and national consultant to carry out action research on climate resilient livelihoods. This report is the main deliverable from this consultancy.

The ICAM team aims to use the two key research deliverables – the list of criteria for climate-resilient livelihoods and the final report including the recommended livelihood options - for the following next steps:

- For further analysis to help decide which future livelihood options will be climate resilient and feasible for the ICAM project's main target beneficiaries, i.e. the land-less and land-poor, with a particular emphasis on women and ethnic minorities;
- Use identified livelihood options as a key input for discussion and prioritization of future climate resilient livelihoods during the ICAM project's larger CBA planning process with project partners. This will form the basis for how to best support these ideas for implementation by the ICAM project or for potential implementation by other INGO partners in An Giang and Soc Trang and other Mekong Delta provinces;
- Integrate these livelihood recommendations into advocacy, training material development, DRR, governance, gender equality and women's empowerment, etc.;
- Contribute to the ongoing Vietnam Climate Change Working Group (CCWG) discussions on resilience, and serve as a potential input into a '*resilience framework*' for Vietnam; and finally
- Contribute to CARE's broader discussions and work on resilience.



2. Research objectives and methodology

2.1. Main objectives of the research

The main objective of this study concerning climate resilient livelihoods was to identify the most appropriate and feasible livelihood options that are **climate resilient**, **gender responsive** and which **benefit the main target groups**. The purpose of the research was also to build on previous assessments done as part of the project that produced a tentative list of livelihood options that could be supported by the ICAM Project.

The research had four objectives:

1. To develop in consultation with project staff and partners a **list of criteria to define or operationalize 'climate resilient livelihood'** based on international and national best practices, CARE strategies, project experience, lessons learned and tools and in consultation with relevant local stakeholders;
2. To identify the most applicable and effective **gender responsive climate resilient livelihood options** for the context of the project communes, targeting the main project beneficiaries (such as **women, land-less, land-poor, ethnic minorities** and other vulnerable groups);
3. To collect and consolidate **technical, scientific, financial and other information required about the selected livelihood options**; and
4. To make a number of detailed **recommendations for the effective planning, implementation and replication** of each selected climate resilient livelihood option in the project area.

The two main deliverables of the research are:

- **List of criteria** to define and operationalize '*climate resilient livelihoods*'
- **Final report** including detailed information on a number of climate resilient livelihood options for the project target groups and recommendations for implementation.