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Funding Agency: IDRC and Government of Canada

IIRR
INTERNATIONAL INSTITUTE OF RURAL RECONSTRUCTION

Building an evidence base for inclusive nature-based climate solutions in small-scale aquaculture for sustainable aquatic food systems in the Philippines and Cambodia

Main Implementing Agency: International Institute of Rural Reconstruction (IIRR)

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Gender and climate vulnerability in small-scale aquaculture in the Philippines and Cambodia: Early lessons from the AQUADAPT PhilCam project

Presenter:
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What is AQUADAPT PhilCam project?

AQUADAPT PhilCam – inclusive, nature-based climate solutions in Small Scale Aquaculture

OBJECTIVES:

- Understand challenges, opportunities, best practices and lessons on NbCS in SSA in ASEAN region.
- Generate evidence to support climate solutions in SSA in PhilCam
- Build support for NbCS through knowledge sharing, capacity building, and networking activities for key stakeholders across the ASEAN region.

STRATEGIES:

- Action Research
- Information/ Technology, Training, Resource Inputs
- Community Participation/ Engagement
- Linkaging, Networking, Convergence
- Policy Recommendation

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What are AQUADAPT PhilCam SSA activities?

AQUADAPT PhilCam SSA Activities

- ***SSA in Freshwater Environment***
  - Tilapia
  - Catfish
  - Common Carp
  - Mudfish
  - Azolla – for feeds
- ***SSA in Brackish- and Marine Waters***
  - Oysters
  - Mussels
  - Mudcrab
- ***Other SSA practices***
  - Rice-fish faming; Integrated farming, including use of aquashade, and vegetable container cultivation
  - Polyculture system
- ***Biodiversity Conservation and Enhancement***
  - Stock enhancement
  - Citizen Science

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Gender and climate vulnerability in small-scale aquaculture in the Philippines and Cambodia: Early lessons from the AQUADAPT PhilCam project

Methods of Data Collection

1. Country Activity Reports: Philippines and Cambodia
2. Key Informant Interviews
3. Focus Group Discussions

Climate Variables, Gendered Vulnerability and Potential Impact in Small Scale Aquaculture (SSA):
The Case of Oysters and Mussels Culture in Ivisan, Capiz (18 Female: 8 Males Respondents)

CLIMATE VARIABLES	GENDERED VULNERABILITY AND POTENTIAL IMPACT : WOMEN	GENDERED VULNERABILITY AND POTENTIAL IMPACT: MEN
 Temperature Rise and Extreme Heat: Felt hotter than 5-10 years ago	• Reduced number of spats (larvae) for collection • Favorable for fish drying – better product quality and income	• High mortality of spats and farmed oysters and mussels • High risk to heat stroke
 Changes in Rainfall Level: Frequent and heavier rainfall	• Lower salinity for mussels and oysters – higher mortality and poor growth • Regular farm inspection and maintenance prevented • Presence / threat of “Red Tide”	• Rains brought more garbage to culture areas – more cleaning time, • Longer culture period- more vulnerable to exposure to bad weather • Presence of “Red Tide”/ Closed fishing season

Climate Variables, Gendered Vulnerability and Potential Impact in Small Scale Aquaculture (SSA):
The Case of Oysters and Mussels Culture in Ivisan, Capiz (18 Female: 8 Males Respondents)

CLIMATE VARIABLES	GENDERED VULNERABILITY AND POTENTIAL IMPACT : WOMEN	GENDERED VULNERABILITY AND POTENTIAL IMPACT: MEN
 Flooding and Sea Level Rise: Water has entered houses (knee high) during high tide with flooding	• Health risk, water borne diseases • Increase in household chores • Limited/ extremely reduced rest time (time poverty)	• Destruction of house and culture structures • Required more time for repair of house and culture structures (time poverty) • Loss of income and properties
 Typhoon Disturbances: fewer but stronger typhoons	• Fish drying highly affected; fish spoilage • Food scarcity- • Lost of livelihood (economic poverty) • Health risk, water borne diseases • Conflict due to financial and mental stress	• Loss of properties (house and culture structures) • Loss capital, Loss of profit (economic poverty) • Mental and physical stresses to provide budget

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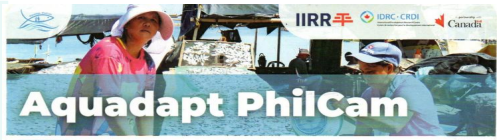
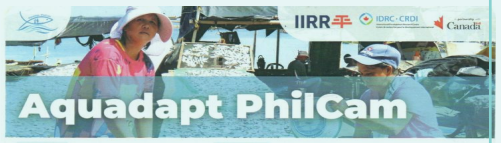


Gender Roles and Climate Change Adaptations:
The Case of Oysters and Mussels Culture in Ivisan, Capiz (18 Female: 8 Males Respondents)

MAJOR GENDER ROLES in OYSTER FARMING	MAJOR GENDER ROLES in MUSSEL FARMING	CC ADAPTATIONS OF OYSTER and MUSSEL FARMERS (and through AQUADAPT)
• Prepare spat collectors • Prepare farm structures • Set-up spat collectors • Keep oysters free of dirt and debris • Harvest • Clean harvested oysters • Sell/ Market • Borrow money from informal sources	• Prepare bamboo stakes/ farm structure • Clean harvested mussels • Collect small-sized mussels to grown/ hang in cages/ onion bags • Sell/ Market • Borrow money from informal sources	• Engage in vegetable backyard production; quality seeds provided • Engage in small-scale pond/ tank culture of catfish • Use of commercial feeds (for catfish) • Prepare low-cost, locally available plant-based feeds, including azolla • Gather and sell firewood • Use of solar dryer/ plastic sheet for cover • Product diversification (fish paste; smoked fish, mussels, oysters) • Culture of small-sized harvests • Harvest crops before typhoon season • Study visit and trainings (depuration, fish processing, quality control and packaging)

LEGEND: Activities done **Mostly by Women; Mostly by Men, Both**



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Early Lessons Learned:

1. The aquatic environment is highly vulnerable to climate change. Women and men fishers are highly vulnerable to climate change impacts: time and economic poverty, malnutrition, loss of income, lives and properties, mental and emotional stresses, conflict.

2. Except on more physically demanding tasks, women participated in all aquaculture activities; dominate in fish processing and marketing activities.

Early Lessons Learned:

3. Women prioritized expenses on food, education of children and household expenses on sanitation and hygiene, while men prioritized expenses on food, aquaculture inputs and materials, and education of children, in the order of importance.

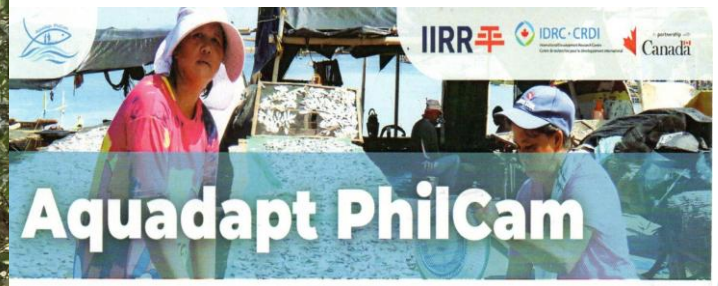
4. While women are engaged in SSA doing various productive gender roles, they are also expected to do reproductive gender roles in the home, particularly on house cleanliness and sanitation, and food preparation.

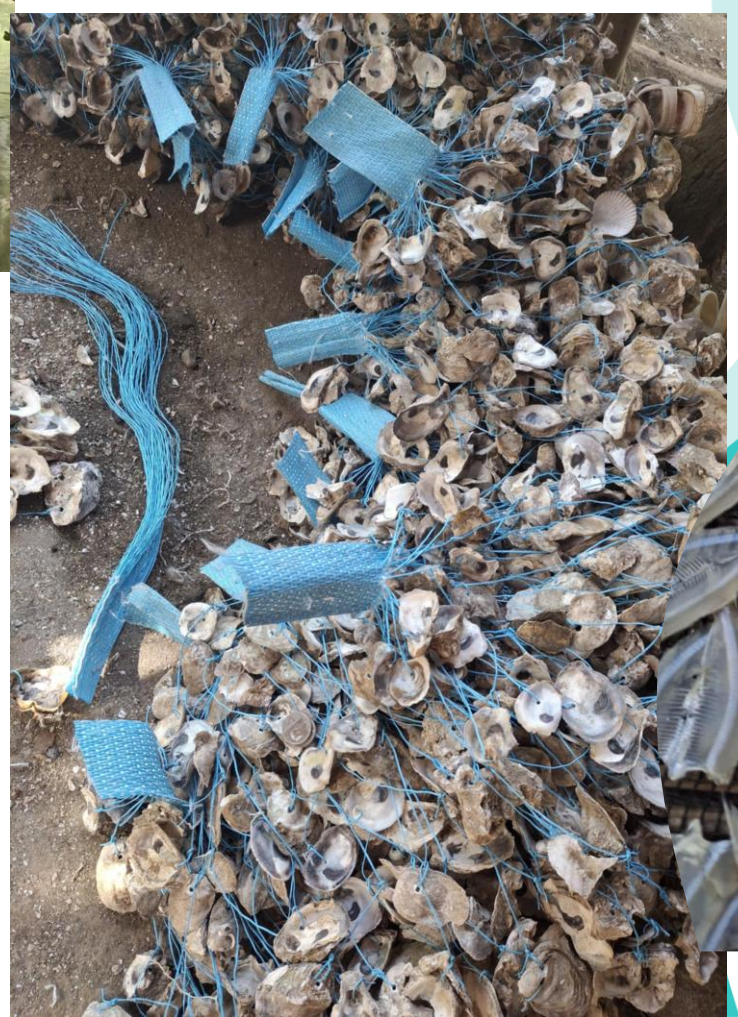
Early Lessons Learned:

5. AQUADAPT PhilCam Project enhances the capacity of small-scale women and men oysters and mussels farmers for climate resiliency through nature-based solutions; through provision of needed inputs; sharing of information and technology, product development and diversification, quality control, and packaging through trainings; through project monitoring, and community networking with relevant local government units and action research through a consortium of state colleges and universities research institutes.

Early Lessons Learned:

6. Some unintended positive outcomes of the AQUADAPT Project generated during KII which may enhance resiliency during climate disasters include:
    - Increase self respect and confidence in making social connections with IIRR staff, foreign guests, and local government units.
    - Improve social skills with community members
    - Desire to participate in community and government biodiversity conservation efforts and coastal clean-up.





Thank you.

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Woman Aquaculture and GAD Specialist

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