



# SUSTAINING LIVES AND THE ENVIRONMENT THROUGH LOCAL COLLABORATIVE ENGAGEMENT: CASE OF SELECTED CONSERVATION FARMING VILLAGES IN THE PHILIPPINES

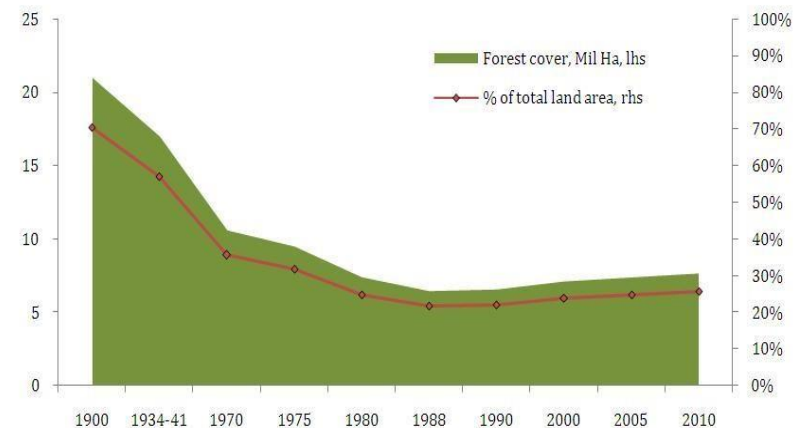
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# INTRODUCTION

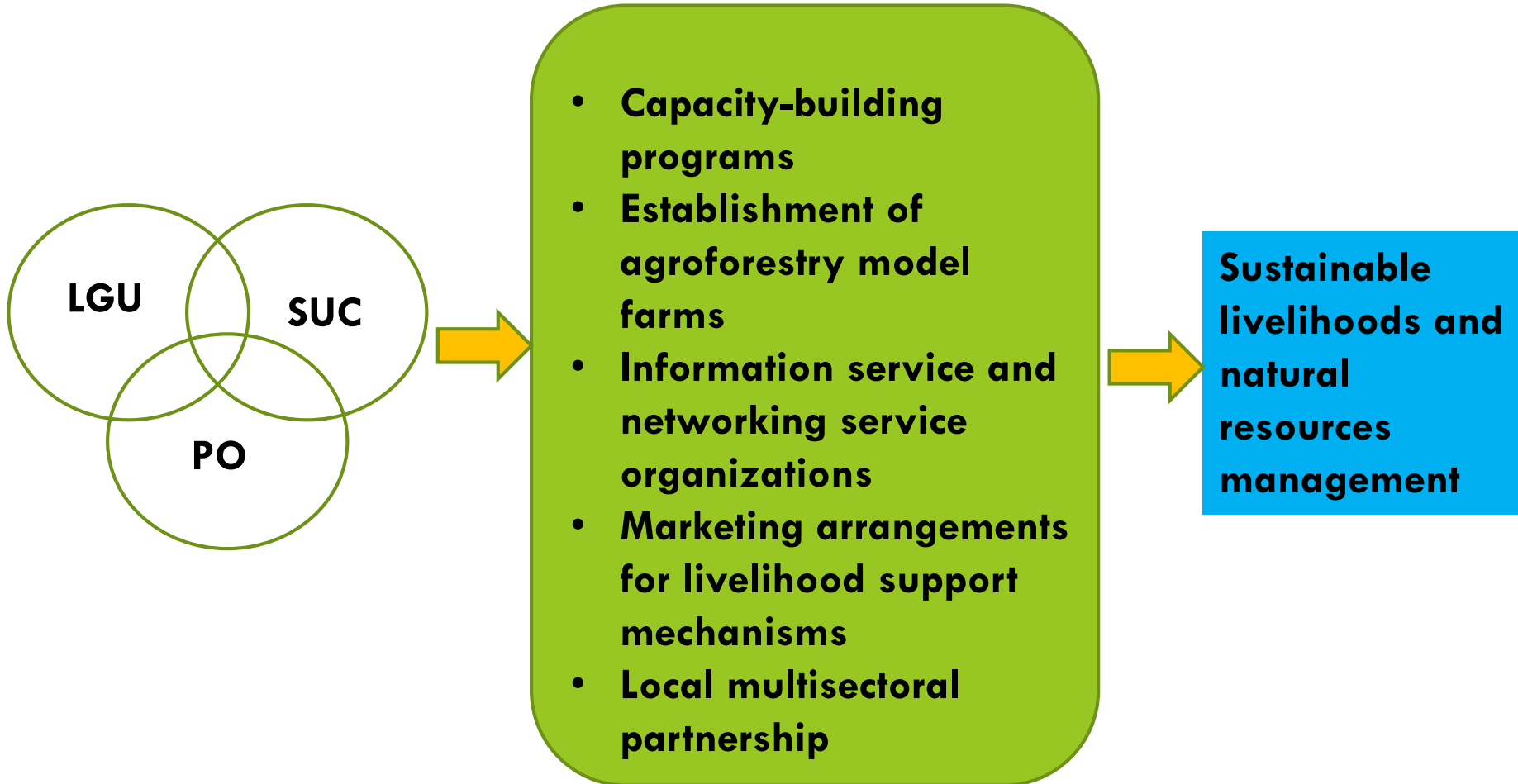
- Half (15M) of the total land area of the Philippines is classified as forestlands
- Sustainable natural resources management remains a quest
  - ▣ *Sustain the natural resources*
  - ▣ *Sustain human lives*  
24M Filipinos in the upland areas (Espiritu et al 2010)

Philippines' forest cover



Sources: DENR, WB CEA 2009 and 2010 FAO Global Forest Resources Assessment Philippines Country Report

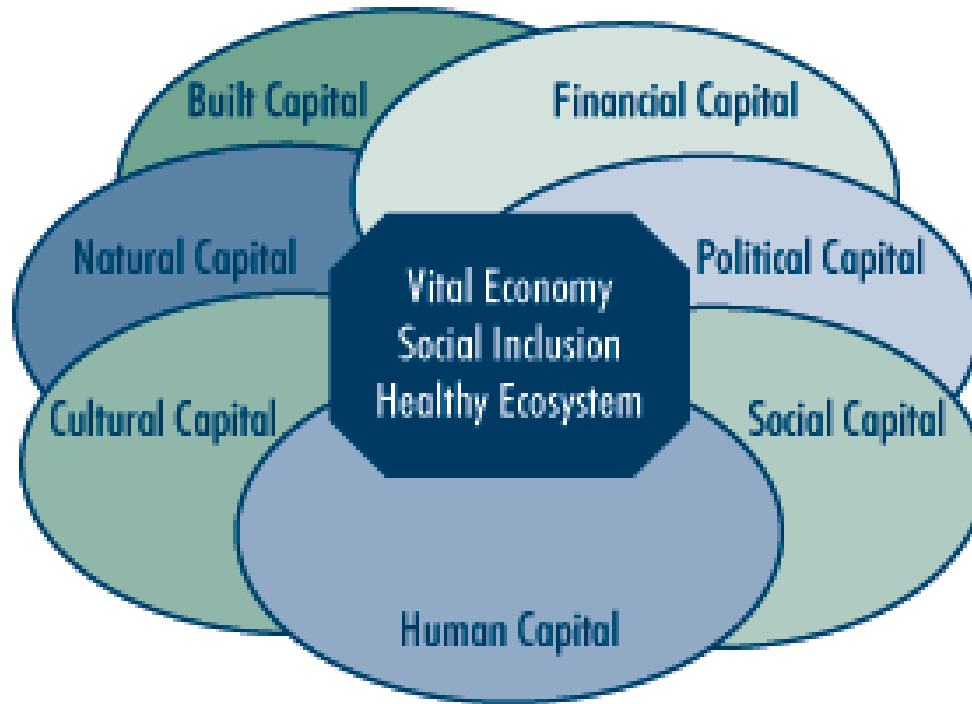
# THE CFV PROGRAM



# RESEARCH QUESTIONS

- ❑ Did CFV make a difference in the lives of the upland farmers and the environmental conditions of the selected sites?
- ❑ What is the level or status of the indicators of sustainable communities: social, natural, human, physical, financial, political and cultural capital?
- ❑ What factors contribute to the current levels of the different capitals/assets of these communities?

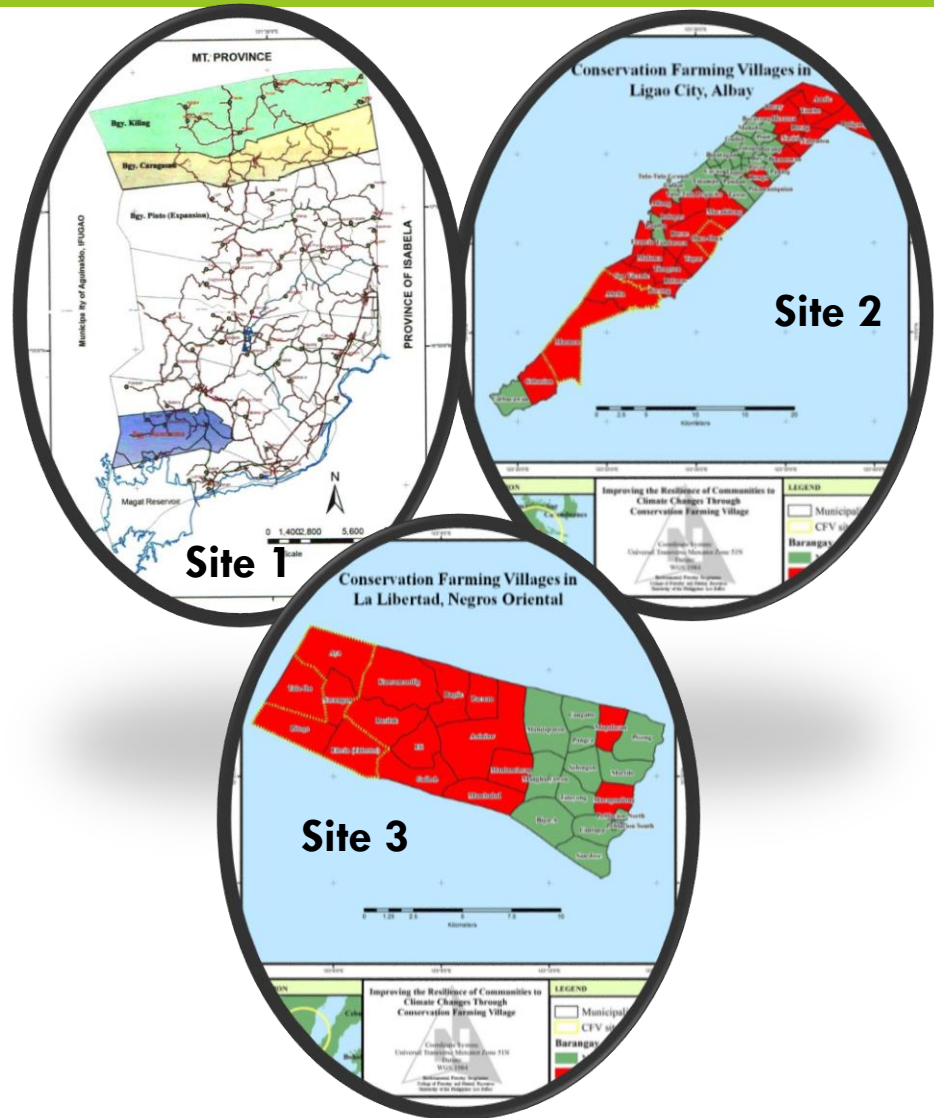
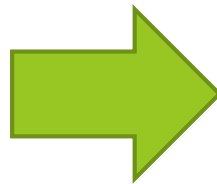
# THEORETICAL FRAMEWORK



## COMMUNITY CAPITALS FRAMEWORK

*(Cornelia and Flora, 2008)*

# THE STUDY SITES



# METHODOLOGY

- **Household survey (n=230) , focus group discussion (12 sessions with a total of 147 participants) , key informant interview, direct observation and secondary data gathering**
- **Assessment of the status of the different capitals/assets by farmers**
- **The respondents scored each indicator under each capital 1 for improved; 0 for stable or no change; and -1 for declined.**
- **The level of different capitals was determined using the following scales: -1.00 to -0.50 as very low; -0.51 – 0.00 as low; 0.01-0.50 as moderate; and 0.51 to 1.00 as high level.**

# RESULTS



# SOCIOECONOMIC CONDITIONS

Socioeconomic Attributes		%
Mean age	54	
Civil status	Married	90
Educational level	Elementary education	42
Mean HH size	5	
Income sources	Farming	100
	Farming + non-farm	40
Average annual income	Php10000-20000 (\$200-400)	37
	>Php50000	32
Mean farm size	1.5 hectares	

# BIOPHYSICAL CONDITIONS

Biophysical conditions		%
Topography	Rolling	36
	Steep	32
	Flat	32
Source of water	Rainfed	100
	Creek/Spring	43

# Social capital

INDICATORS	Site 1	Site 2	Site 3
Communication and interaction of the community members	0.83	0.78	1.00
Participation to the community activities such as bayanihan	0.68	0.81	1.00
Partnership with external organizations	0.25	0.76	1.00
TOTAL MEAN SCORE	0.59 High	0.78 High	1.00 High

- *Strong bonding between the community members*
- *Most of the members were natives to the community*
- *Active membership to CFV Farmers' Association*

# Human capital

INDICATORS	Site 1	Site 2	Site 3
Local knowledge in farming	0.16	0.32	0.41
Training in agriculture/NRM	0.06	0.33	0.36
Access to NRM-related info	0.00	0.06	0.74
Sources of information	0.06	0.12	0.68
No. of household members involved in farming	0.03	0.22	0.05
Knowledge on NRM policies	0.01	0.31	0.90
MEAN SCORE	0.09	0.22	0.45
	Low	Moderate	Moderate

- *Training programs organized by CFV and LGUs in Sites 2 and 3*
- *Active farmer-volunteers in Sites 2 and 3*
- *Active involvement of housewives in farming in Site 2*

# Natural capital

INDICATORS	Site 1	Site 2	Site 3
Soil fertility	0.16	0.37	0.13
Farm productivity	0.10	0.46	0.42
Less occurrence of soil erosion	0.06	0.60	0.27
Access to water resources	0.13	0.05	0.97
MEAN SCORE	0.008 Low	0.27 Moderate	0.45 Moderate

- *Sustained adoption of soil and water conservation measures in Sites 2 and 3*
- *Contour hedgerows*
- *Crop diversification/agroforestry*
- *No cutting of trees policy in Site 3*

# Examples of SWCM



# Physical capital

INDICATORS	Site 1	Site 2	Site 3
Farm tools/equipment	0.03	0.22	0.15
Post-harvest facilities	0.06	0.03	0.06
Transportation facilities	0.00	0.25	0.75
Farm-to-market road	0.10	0.22	-0.07
Market outlets	0.70	0.01	0.80
Distance of market outlets	0.10	0.19	0.10
MEAN SCORE	0.17	0.15	0.22
	Moderate	Moderate	Moderate

- *Lack of post-harvest facilities and infrastructure*
- *Providing farmers' access to market by LGU in Site 3*
- *Conduct of upland farmers' market day in Site 3*
- *Assured market for corn in Site 1*

# Farm-to-market roads



# *Financial capital*

INDICATORS	Site 1	Site 2	Site 3
Sources of household income	0.20	0.28	0.54
Income from farming	0.93	0.40	0.40
Income from non-farm	0.13	0.02	0.28
Household savings	0.16	0.00	0.22
MEAN SCORE	0.35 Moderate	0.17 Moderate	0.16 Moderate

- *High market price and assured market of corn (animal feeds) in Site 1*
- *Commercial production vs subsistence*
- *Mean farm size of 2.06 in Site 1; 1.05 in Site 2; 1.5 in Site 3*

# Political capital

INDICATORS	Site 1	Site 2	Site 3
Existing laws and policies conservation farming	-0.70	0.50	0.82
Existing local programs and activities related to conservation farming	-0.83	0.57	0.65
MEAN SCORE	-0.76 Very Low	0.54 High	0.73 High

- *Mainstreaming CFV program in the development programs of LGUs in Sites 2 and 3; regular budget allocation*
- *Institution of local policies related to adoption of SWCM and agroforestry in Sites 2 and 3*

# Cultural capital

INDICATORS	Site 1	Site 2	Site 3
Practice of local traditions in the community	-0.93	-0.12	0.81
Cultural beliefs and practices in agricultural production	-0.86	0.13	0.41
MEAN SCORE	-0.90 Very Low	0.05 Low	0.61 High

- *Sustaining local practices and traditions*

# *Sustainability level*

<b>COMMUNITY CAPITALS</b>	<b>Site 1</b>	<b>Site 2</b>	<b>Site 3</b>
<b>Social</b>	0.59	0.78	1.00
<b>Human</b>	0.04	0.15	0.34
<b>Natural</b>	0.04	0.15	0.44
<b>Financial</b>	0.35	0.17	0.16
<b>Physical</b>	0.16	0.07	0.25
<b>Political</b>	-0.76	0.54	0.73
<b>Cultural</b>	-0.90	0.05	0.61
<b>MEAN SCORE</b>	-0.06	0.27	0.50
<b>ADJECTIVAL RATING</b>	LOW	MODERATE	MODERATE

# CONCLUSIONS

- CFV made a difference in the socioeconomic and ecological dimensions of natural resources management in the three upland farming communities
- The three upland farming communities vary in the levels of community assets/capitals; challenge of striking a balance among the seven capitals
- Sustainability of upland farming communities does not solely rely on the driver of change
- Local collaborative engagement is a key factor towards the sustainability of the upland farming communities
  - ▣ *Interplay between the local government units and the community*
  - ▣ *Interplay between and among community members*

# IMPLICATIONS AND RECOMMENDATIONS

- **An interplay of the community resources, particularly the local government units and the existing structures and processes within the community is necessary to establish a balance among the seven community capitals.**
- **The interventions and programs that should be developed and implemented towards promoting sustainable upland farming communities should be holistic such that the seven community assets, namely: human, social, natural, physical, financial, cultural and political assets could be properly invested**