

**Use of participatory approaches in
ensuring sustainable livelihoods
for poor communities
in the steep uplands of Central Vietnam**

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Background

The IDRC-funded Project supported a team from the University of Agriculture and Forestry, Hue, to develop an integrated and community-based participatory approach in research for development.

The aim was to reduce poverty in a community, and involve them in resource management, in a mountainous area, west of Hue, near the border with Laos.

The University team had specialists in Agronomy, Forestry, Horticulture, Fisheries, Economics and Sociology.

Assisted by CIAT scientists – farming systems agronomy, agricultural anthropology, cassava and forage agronomy, economics.

Land use in Hong Ha

The Community



Area (ha)	18,950	1000 Persons
Lowland rice	13	185 families
Upland rice	40	5 ethnic groups
Upland crops	97	
Imperata grassland	4,830	
Bush or waste land	4,560	
Forest	7,850	
Planted forest	710	

Participatory methods were used for:

- **Characterization**
 - an analysis of the situation and problems
- **Evaluation of interventions**
- **Understanding land use rights**
- **Monitoring progress**

FPR was complemented by structured interviews to assess change with time

Wealth group	1998 %	2000 %	Income (USD)	Criteria
Better-off	19		>\$60	have capital, labor, off-farm income, adequate food eat rice for 6 mths
Moderate	37		\$40-60	lack capital, stable life some cash, food short rice – 4 mths, rest cassava
Poor	34		\$20-40	lack capital, small area for crops no cash, lack food 4-6 mths rice – 2-4 mths, cassava/banana
Very Poor	10		<\$20	lack labor, cannot borrow lack food 7-9 mths rice – 2 mths, cassava/banana

Main production activities

Source	Score	Importance
Cassava	30	1
Lowland rice	15	2
Upland rice	15	2
Social/off-farm income	12	3
Bananas	10	3
Non-timber forest products	9	3
Livestock	8	4
Other	2	5

Summary of main problems/concerns

- **Food security** (associated with low food production)
- Lack of capital (and inability to generate cash income)
- **Sickness** (malaria and gastroenteritis)
- Low education (lack of technical knowledge)
- Lack of labor
- Too many children – **poor family planning**

Lack of food was associated with:

- Low soil fertility
- Pests and diseases
- **Restricted access to land**
- Lack of labor
- Lack of inputs

Gender Analysis

Gender Activities

- Crops – mostly women
- Livestock – pigs, poultry women
 - cattle men
- NTFPs – hunting & harvest rattan men
 - firewood & herbs women
- Housework- women

Decision making

- Crops & livestock – men and women
- Other - men

Men had a higher educational level, held land titles, and greater access to credit, information and training

Indigenous knowledge

Seasonal characteristics:

- The phases of the moon symbolize plant and animal development
- The Year is divided in 12 months of 30 days (good and bad days)
- Detailed farming calendar for different crops
- Suitable days for planting different crops

Land and soil classification:

- Slope and aspect
- Plant indicators
- Texture, color, biological activity

Observations of natural phenomena

- Worm casts, insect activity, color of insects

Farmers followed a farming system that was optimal where there were no inputs and few products sold

Interventions

To increase crop and livestock production and generate cash income

- Rice varieties for yield and disease resistance
- Improved rice management
- New cassava varieties and management practices
- New varieties of maize and food legume crops
- Green manure crops to renovate *Imperata* grasslands
- Improving home gardens - more fruit, vegetables and pepper
- Improved pig breeds and management practices
- Increasing fish production in ponds
- Improved grasses and legumes for supplementing livestock

In addition,

- A community group on forest management was formed
- Water was piped to 15 households in one village

How were these done?

- Each intervention was introduced through an interest group
- Initial members of group were suggested by the commune leaders
- Subsequently others could join provided project had resources
- Technical training was provided to members
- Follow up visits by team members
- University students were assigned to live in community as part of their practical training
- Field days were held for other members of the community
- Results were shared with all members of the community

Successful Interventions Year 1

- Rice varieties for yield and disease resistance
- Improved rice management
- New cassava varieties and management practices
- New varieties of maize and food legume crops
- Green manure crops to renovate *Imperata* grasslands
- Improving home gardens - more fruit, vegetables and pepper
- Improved pig breeds and management practices
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Irrigated rice improvement

In Year 1, in the first cropping season:

- 5 farmers evaluated new varieties and fertilizers
- Yield was increased from 2.2 to 3.3 t/ha with a new variety
- It was increased to 4.1 t/ha with fertilizer

In the second cropping season:

- 100 farmers were given an improved variety to evaluate
- Results were obtained from 75 farmers
- Average yields increased from 2.2 to 3.8 t/ha with no fertilizer
- With fertilizer yield was 4.2 t/ha

In Year 3:

- All farmers were using the new varieties and some fertilizer

Why farmers liked the first interventions

“Rice is the preferred main food. Irrigated rice gives more reliable yields than upland rice”

“Pig and fish can be sold to generate income”

“Piped water reduces labor for water-related activities from 2.5 hrs to 0.5 hr/day for women and children”

“Cassava has been our main staple and we hate it!
Why increase cassava yields, we eat too much now!!”

“ We do not benefit from improved forest management”

“There are plenty of natural forages for cattle”

Land use tenure

- Natural/regenerating forests – assigned to the State
 - Community can extract NTFPs
- Planted forests
 - State
- Bush covered land
 - ‘reserved for shifting cultivation’
- *Imperata* grassland
 - Uncertain, rights given as land is developed
- Agriculture land
 - Permanent use right by Community

Tree tenure

- Community has ownership of trees planted on agriculture land
- Have right to extract NTFPs and timber for construction
- Planting trees on shifting cultivation land confers land use right
- Would have ownership of trees planted on *Imperata* grassland

Stakeholder negotiation

In 1998:

- Community had 150 ha assigned as agricultural land from a total of 14,000 ha in the commune
- Remainder was thought to be under the control of the a Watershed Protection Board, the Forestry Department and a State-owned forestry enterprise

Each group had their own interests:

- The Community – producing enough food and income to survive
- The Board – ensuring steep land in the upper watershed was protected
- Forestry Dept – ensuring that resources were looked after for society
- State enterprise – acquiring land for reforestation as a business

However:

150 ha of upland is not sufficient to sustain 1000 people

Stakeholder negotiation

Aim – to obtain more **assets** for the Community
two activities were carried out

1. Following research, information was shared between the Community and other stakeholders on the legal status of land tenure, land use rights, and tree tenure.

At a stakeholder meeting:

- Each group presented its program and expressed its concerns
- Government services acknowledged they needed support from the Community for long-term management of forest land

2. Community negotiated the reassignment of land from the government:

- 8 ha of agriculture land that had been planted to forest was given back to the commune
- 125 ha of agricultural land that had been set aside for sugar production was assigned to the community

What were the results after 3 years?

Wealth group	1998 %	2000 %	Income (USD)	Criteria
Better-off	19	29	>\$60	have capital, labor, off-farm income, adequate food eat rice for 6 mths
Moderate	37	45	\$40-60	lack capital, stable life some cash, food short rice – 4 mths, rest cassava
Poor	34	20	\$20-40	lack capital, small area for crops no cash, lack food 4-6 mths rice – 2-4 mths, cassava/banana
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Changes in Net Income

Wealth Groups	Year	Rice	Food Crops	Home Garden	HH
Better-off	1998	960	1530	460	35
	2000	1280	2020	550	55
Moderate	1998	690	1090	260	68
	2000	1170	1850	370	84
Poor	1998	370	370	90	62
	2000	840	1520	200	38
V. Poor	1998	210	390	60	18
	2000	215	400	50	10

Some specific outcomes

Food security – Shortage of food was reduced from 3.5 to 1.4 mth

Crop Production – Farmers adopted new varieties of rice, maize, beans and cassava

Gender – Water supplying activities reduced from 2.5 to 1 hr/day

NRM – Community learned that that they had land use and tree tenure rights that could be negotiated

Role of facilitation – a neutral third party is needed for effective stakeholder negotiation

Farmers preferences change with time

By Year 3, with increased pig production, cassava became an important food source

Farmers took an interest in higher yielding varieties, intercropping with beans, and soil management in cassava fields

They collaborated in experiments to conserve cassava leaf as silage for feeding to pigs

Home gardens were seen as a source of more varied food and producing fruit and pepper for sale

Farmers are now taking an interest in planting trees on 'waste land' even though this is a 'long-term crop'

Lessons learned

- Care needs to be taken in selecting farmers for evaluation if results are to be shared equally
- Men and women have different perceptions of problems
- Farmer-to-farmer visitation is an effective way of sharing information
- Information can be obtained and analyzed more rapidly using participatory approaches than formal surveys
- Focus groups are an efficient for monitoring progress
- Stakeholder analysis needs to be carried out prior to negotiation or collective action

Lessons learned

State authorities and university staff learned that:

- Indigenous methods of agriculture are in harmony with the environment but not necessarily with the market economy
- That cooperation could be developed between the State and the Community provided local rights were taken into account
- There is a need to train involve others in the process of using participatory and demand-driven approaches to development
- There is satisfaction in facilitating the poor to help themselves

