



EXTENSION GUIDELINE

Introduction of experience of extension models in participatory sustainable agricultural development in ethnic minority areas (Mang Yang district, Gia Lai Province)



The Project on Capacity Development of Participatory Agricultural and Rural Development for Poverty Reduction in the Central Highlands, supported by Japan International Cooperation Agency (JICA)

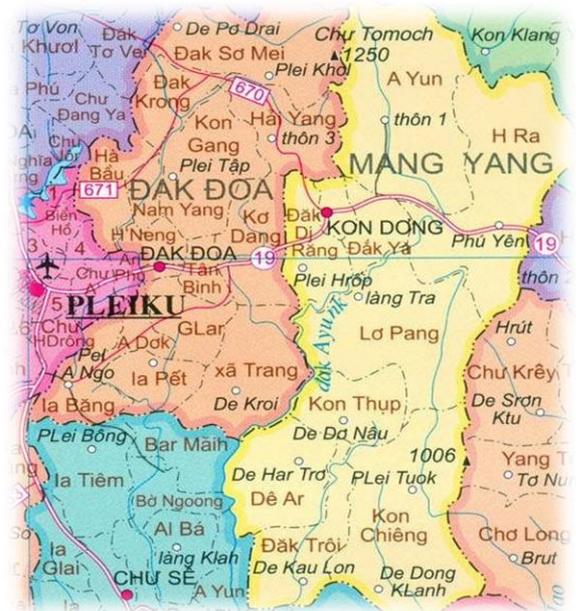
August, 2013

Introduction

Communication between farmers and local officials has been an issue in agricultural extension activities, especially in regions of ethnic minority people in Vietnam. In principle, extension activities should be implemented based on agreements through discussion between both sides. However, it has been considered to be more time and budget consuming.

In this project, the issue “how to enhance villagers’ participation into agricultural extension activity provided by local officials” has been focused, and examined through actual extension activities introducing alternative techniques for sustainable production in this area.

The following section explores each steps of facilitation enhancing farmers’ participation, making recommendation for planning and implementation.



Pilot site: Lo Pang Commune, Kon Thup Commune, Mang Yang district, Gia Lai Province, Vietnam

Cover picture:
Mr. Plinh, “Key farmer” demonstrating how to make “Bokashi” organic fertilizer with supporting from Ms. Dung, Facilitator (SG)

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Attached information card:

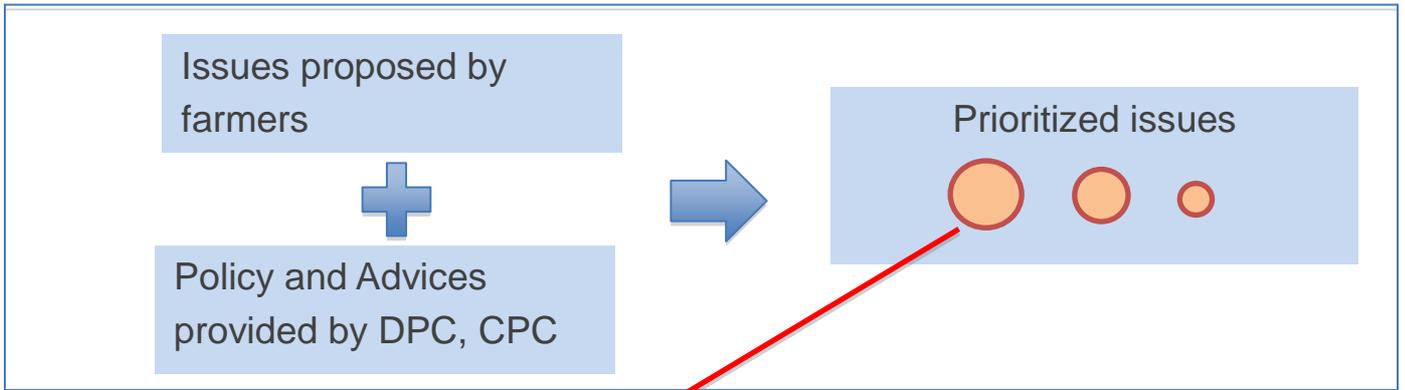
- i. Bokashi fertilizer processing*
- ii. Fertilizer application for pepper and coffee*
- iii. Legume grand cover (Wild peanut)*

CONDUCTED GROUP:

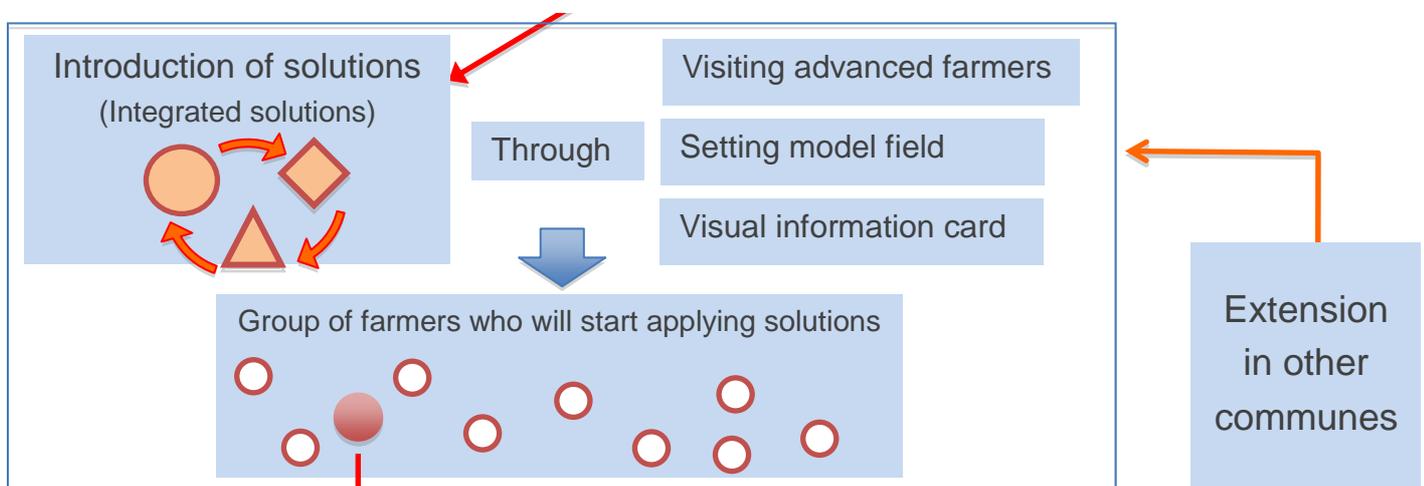
- 1) Officers of RDD: *Ms. Phan Thi Dung, Mr. Bui Van Kinh, Mr. Nguyen Van Quyen.*
- 2) Officer of Veterinary station: *Mr. Pham Tu*
- 3) Officer of Plant protection station: *Ms. Cao Thi Cam Le*
- 4) Officer of Agricultural extension station: *Mr. Nguyen Van Cuong*
- 5) Key farmers: *Mr. Puih (Chuk hamlet, KT commune), Mr. Plinh (So Bir hamlet, KT Commune), Mr. Hnang (Hlim hamlet, LP commune), Mr. Non (De Roh hamlet, LP commune).*
- 6) With cooperation of JICA office's staffs: *Mr. Phan Ngoc Minh, Mr. Tran Van Ky, Mr. Dao Phu Loi, Mr. Takeda Masayuki (JOCV).*
- 7) We'd like to thanks the comments of *Mr. Ta Huu Nghia (Head of poverty reduction division, DCRD, MARD) and Mr. Van Phu Bo (Head of Agriculture division of DARD, Gia Lai province).*
- 8) It was edited by *Mr. Hama Shugo (JICA expert on Agriculture)*

General rule of procedure to improve participation of farmers to training.

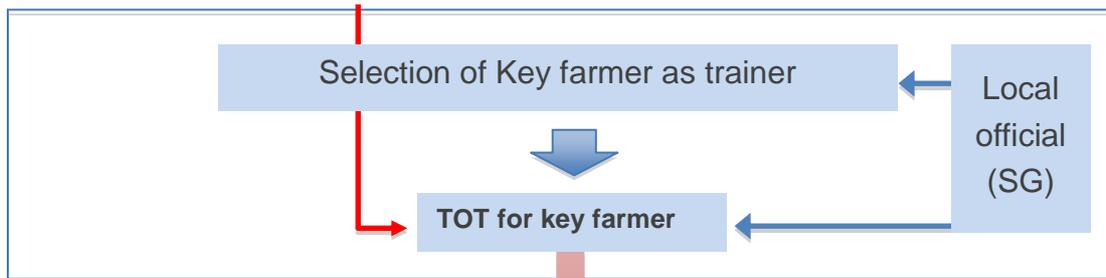
Step1: Prioritizing issues of farmers:



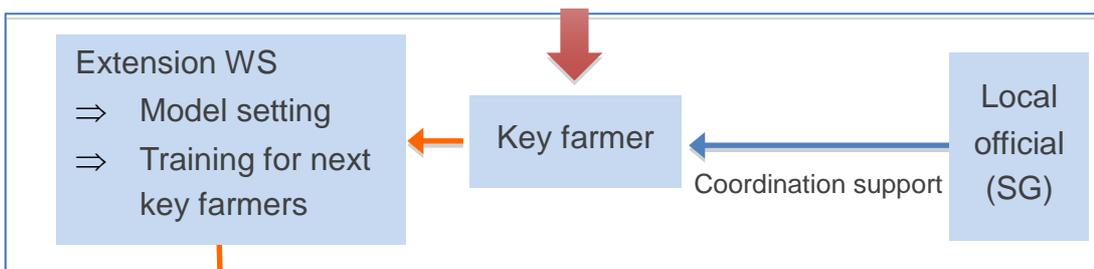
Step 2: Introduction of techniques as solutions:



Step 3: Finding of Key farmer and Training of Trainer (TOT):



Step 4: Extension with Key farmer:



Key lessons of each steps

Step 1 **Prioritizing issues of villagers** Page: 7

- Lesson 1: Villagers' opinion first, but not wish list.
- Lesson 2: Proposal assessment should be done with villagers.
- Lesson 3: Activity should be set based on proposal assessment and well informed to villagers before started.

Step 2 **Introduction of techniques as solutions** Page: 9

- Lesson 4: Acceptance of farmers first, not material first.
- Lesson 5: Demonstration field of key farmer and information card provide farmers with chance to learn.
- Lesson 6: Not only theory but actual experience shall be provided.

Step 3 **Finding of Key farmer and TOT** Page:11

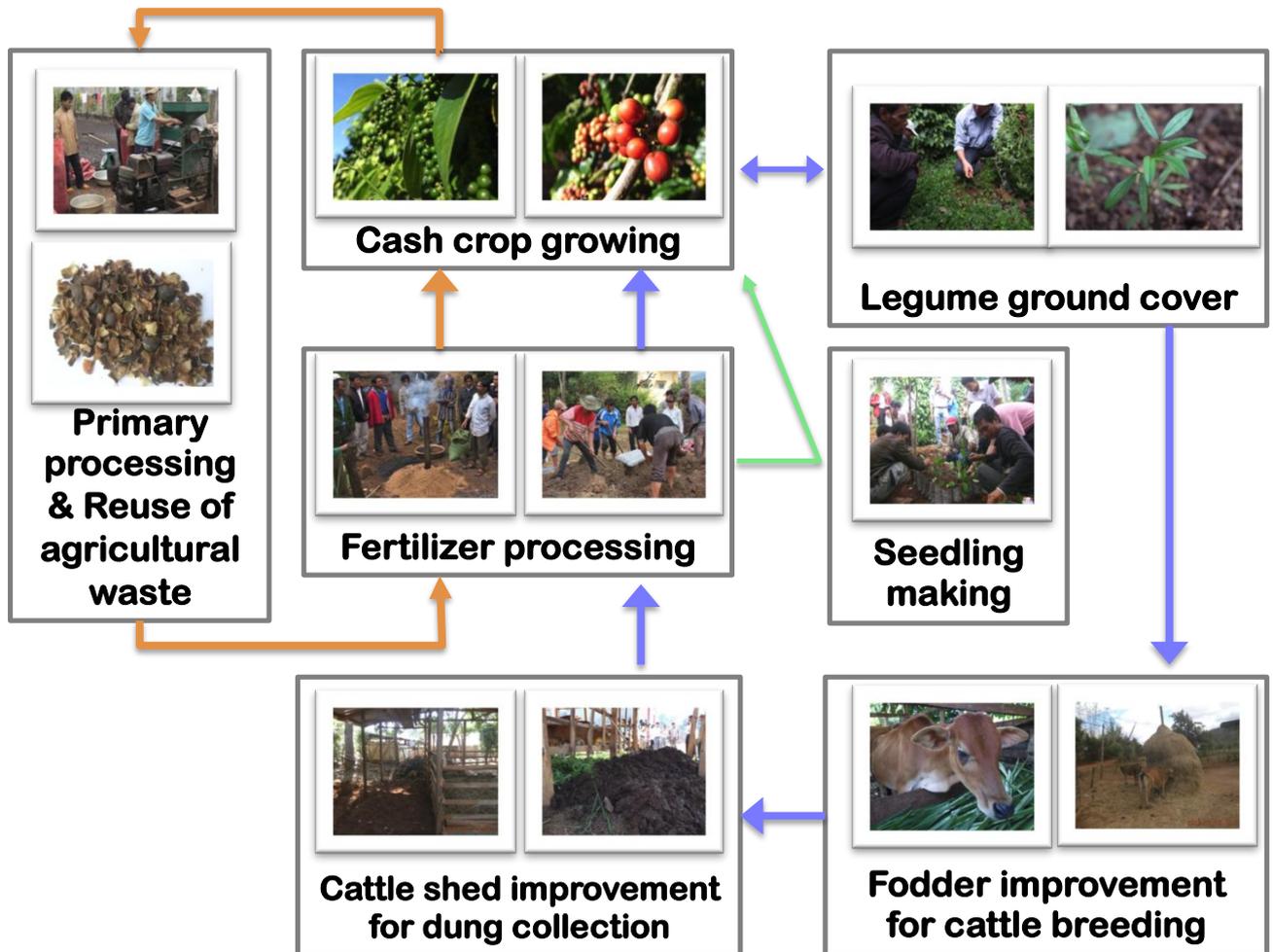
- Lesson 7: Key farmer shall have not only *will* but *proper condition* on cultivation and skill.
- Lesson 8: Key farmer should be willing to share his/her knowledge and experience to other farmers in both inside and outside target area enthusiastically.

Step 4 **Training WS with Key farmer** Page:13

- Lesson 9: Key farmer should attend extension WS organized by local officials as main trainer.
- Lesson 11: Key farmers can continue sharing the techniques with villagers by practice, as demonstration.

The integrated solution for sustainable agriculture

Applied in JICA Mang Yang project



Detail of these components is referred to information cards attached.

Related activities based of villagers' needs



Pest control

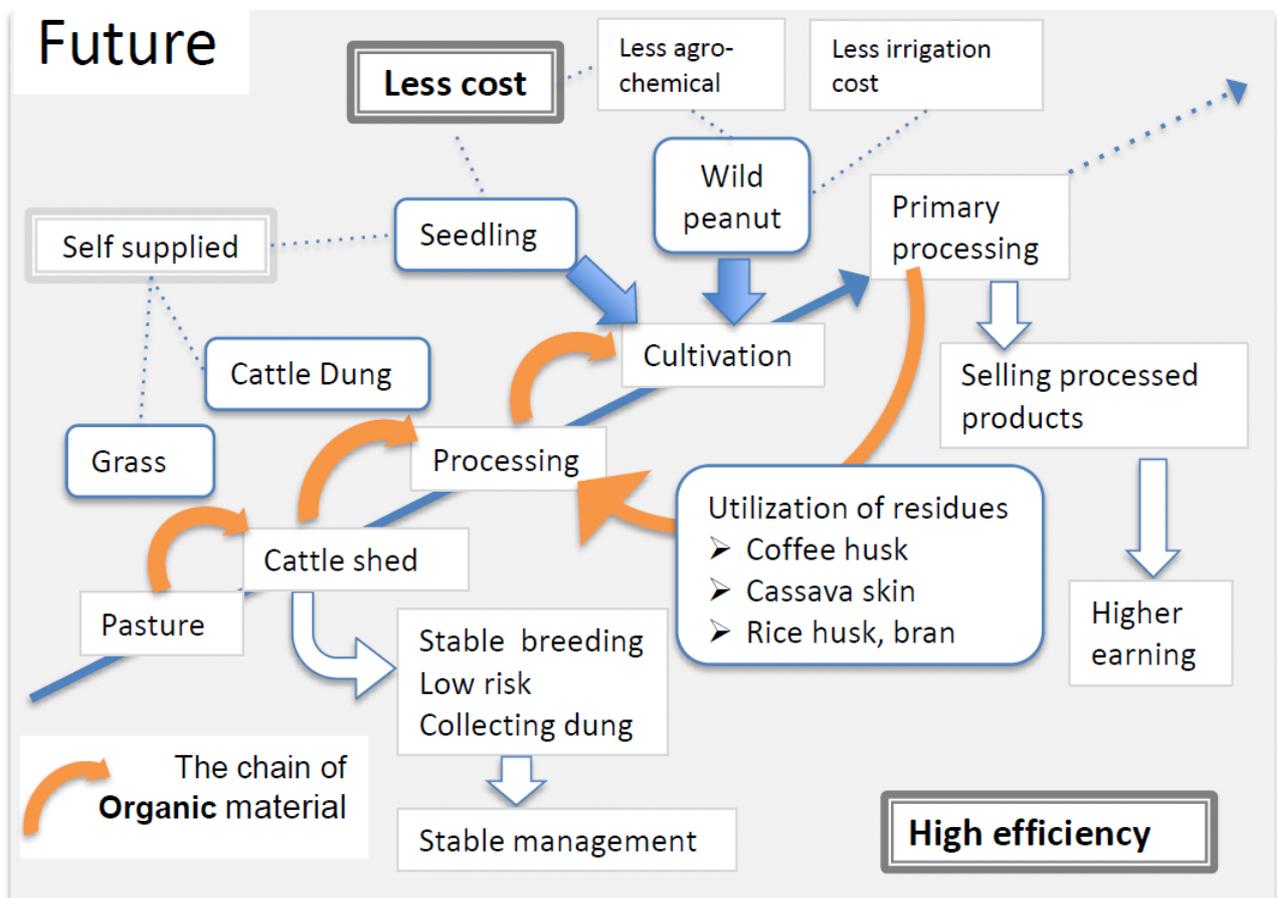
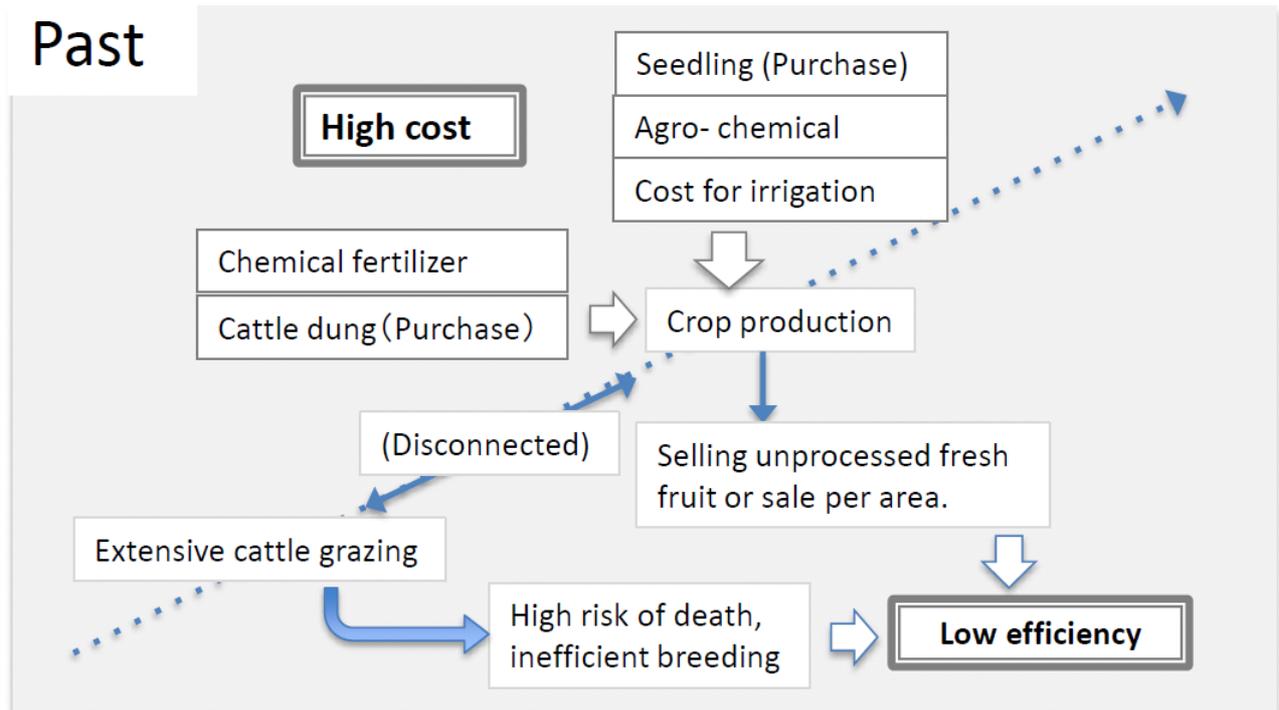


Rubber growing



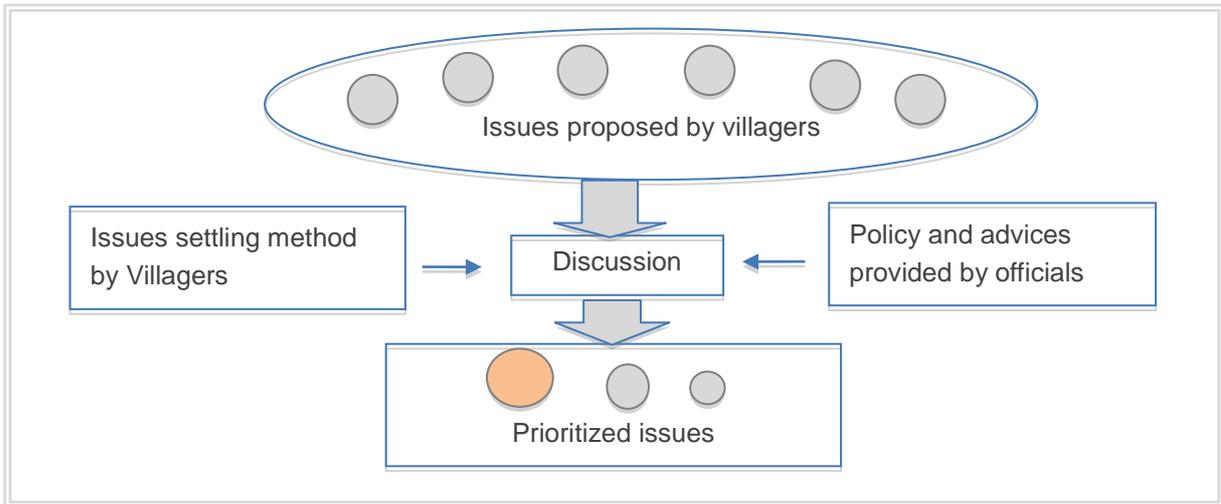
Rice growing

Strategy for transition into sustainable production chain



Step 1 Prioritizing issues of farmers

Goal of Step 1: Let's villagers speak out their issues, and they discuss together to find out real needs, in order to encourage activeness of villagers in implementing activities to improve their life.



LESSONS: [X: not proper case, O: proper case]

■ Lesson 1: Villagers' opinion first, but not wish list.

X Villagers filled proposal sheet with their wish based on their daily life. As the result, project received request sheet, so called as "Wish list".

O Villagers are involved in discussion on problem identification and problem selection for settling issue first, not to be just "wish list".

■ Lesson 2: Proposal assessment should be done with villagers

X After collecting villagers' information, officials decided priority of these issues without discussion with villagers.

O Analyzing their issues using facilitation method, to organize a hamlet meeting to listen their explanation about the difficulties. At the same time, officials give advices for villagers recognize their real issues analyzing present and past situation, to find solution together with villagers.

■ Lesson 3: Activity should be set based on proposal assessment and well informed before started.

X After assessment, DPC implemented activities without announcement of action plan.

O Officials set action plan based on cultivation's calendar of Bahnar people and inform about budget, necessary materials, villagers' contribution like labor, materials to enhance villagers' participation.



Case Study of actual activities on Step 1

1: Hamlet action plan (HAP) is one of the important activities in the first two years of the project. HAP points out summary of villagers' ideas, not project's ideas.

Issues	Possible activities/alternatives	No. of Beneficiaries	Related agency	Resources	Implementation plan
After years of cultivating, land/soil became poor	<ol style="list-style-type: none"> 1. Fallow for some years. 2. Hire tractor to dig farmland. 3. Make dike by cement to prevent erosion. 4. Apply fertilizer to enrich soil 	100 %	Rural development division. Agricultural extension station	<ol style="list-style-type: none"> 1. Labor 2. Land 3. Animal dung 	1. Apply fertilizer to enrich soil (training 1 month, implement, monitoring 1 year)

Result: Based on HAP, the project has organized workshop several times on soil amendment for villagers:

- Provincial agricultural extension center organized workshop on compost processing and fertilization for crops like coffee, rubber, pepper etc. in Lo Pang and Kon Thup communes in May, 2010.
- DPC officials (supporting group) also held training on compost making and fertilization for rice, pepper in other hamlets in these communes.



2: Using proposal sheet, villagers discuss together to find out priority issues.

Issues submitted by proposal sheet to project/PMU should be, however, well analyzed.

Not proper case:

- ⇒ In Hlim hamlet, there are 16 households proposed that they want to learn HT1 rice planting technique. However, after proposal assessment with hamlet leader and households, we got to know that villagers just wanted support of chemical fertilizer, and that they knew technique how to plant HT1 rice well according to hamlet leader's explanation.



Proper case:

- ⇒ In other case, PMU organize training for villagers based on their real needs. 2 workshops on pepper nursery production were held by official. At this workshop, many villagers participated to learn new techniques that they did not know clearly before.

3: Activities should not be only based on villagers' proposal, but also on alternatives.

Recommendation

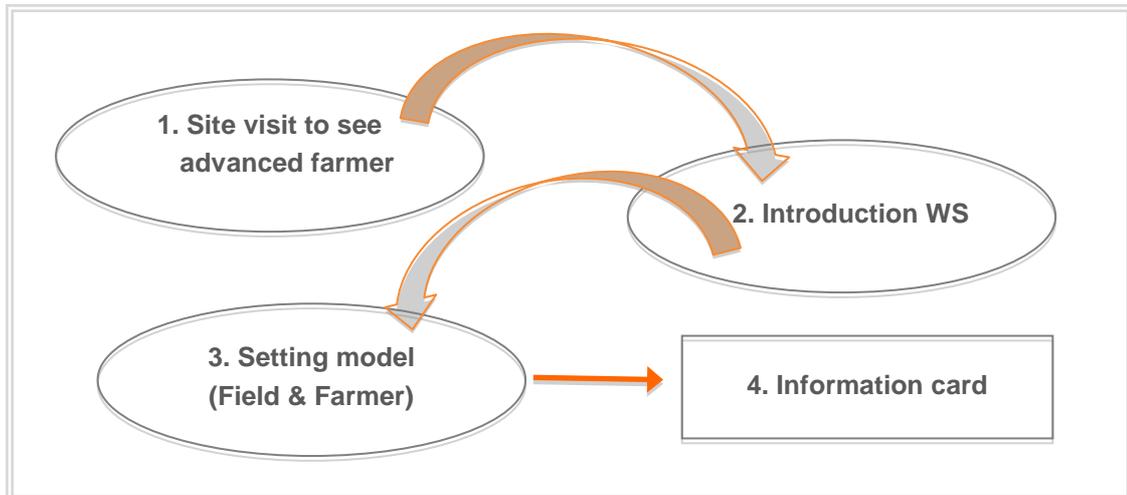
Even unfamiliar alternative techniques which villagers don't know to apply, these should be introduced through study tour to other areas, or by setting demonstration model in village.

Proper case: alternated solution was applied successfully

- ⇒ **Wild peanut** model has been disseminated in 2 communes by officials. When villagers know its benefit, they will buy varieties by themselves.



Goal of Step 2: Farmers get interested in introduced technique and start applying it as first trial.



KEY LESSONS [X: problem, O: solution]

■ **Lesson 4: Acceptance of farmers first, not material first.**

- X Lac Dai seedling just sent to farmers had not been planted even farmers said “Yes, we will plant Lac Dai.”
- O After farmers visited a model field to learn Lac Dai’s effect and techniques to plant by instruction of a model farmer, they planted it by themselves.



■ **Lesson 5: Demonstration field of key farmer and information card provide farmers with chance to learn. (illustrated pictures, information cards – Farmer Field School are needed for those who are illiterate during technique transfer process)**

- X Women have less chance to attend training WS.
- O Through Information card some women got to know what Bokashi fertilizer was, and started to make it with project technical support.



■ **Lesson 6: Not only theory but actual experience shall be provided**

- X Coffee husking as been just introduced in WS, but no farmers started to husk coffee by themselves.
- O After farmers tried husking their coffee and calculate its benefit with project, they started husking coffee.



Case Study of actual activities on Step 2 “Bokashi organic fertilizer”

1: Site visit to see advanced farmer to Bach Ma National Park, Thua Thien Hue province

Date: 24 November to 30 November 2011

Purpose: To introduce a certain method for composting organic fertilizer of farmers by The Bach Ma National Park.

The reason why villagers in Mang Yang got fascinated:

- ⇒ Villagers in Khe Su hamlet are using materials that can be found in Mang Yang, and processing method is easy to understand and applicable.
- ⇒ Effect of Bokashi fertilizer and charcoal were explained by advanced farmers in Khe Su hamlet.
- ⇒ Experience of advanced farmer is the key for their acceptance.



2: Introduction workshop in village

Purpose: For demonstration of processing Bokashi fertilizer

Method: Workshop in a farmer’s garden, with participants invited by a leader in the village who visited Bach Ma national Park.

Result:

- ⇒ Some participants requested project technical support for their first trial of processing Bokashi fertilizer after the workshop.
- ⇒ Project supported farmers whoever prepared raw materials.

Key of facilitation:

- ⇒ Real experience of processing at farmer’s garden could enhance villagers’ motivation.



3: Setting model field

Purpose: To show the effect of Bokashi fertilizer through villagers’ crop production.

Method: Applying Bokashi fertilizer that key farmer made for his coffee trees, with proper technique. Additionally, pruning technique and processing technique for proper selling have been introduced.

Result:

- ⇒ Farmers including participants of WS learned whole process by practicing, and could understand the effect of Bokashi by observing its better growth of coffee tree.
- ⇒ Some farmers started applying the fertilizer for their black pepper.



4: Visual information card

Purpose: To share introduced solutions.

Target group: Participants of WS for review, farmers did not participate in WS including women and children.

Method of making: Using pictures and information collected in the introduction WS of Bokashi fertilizer.

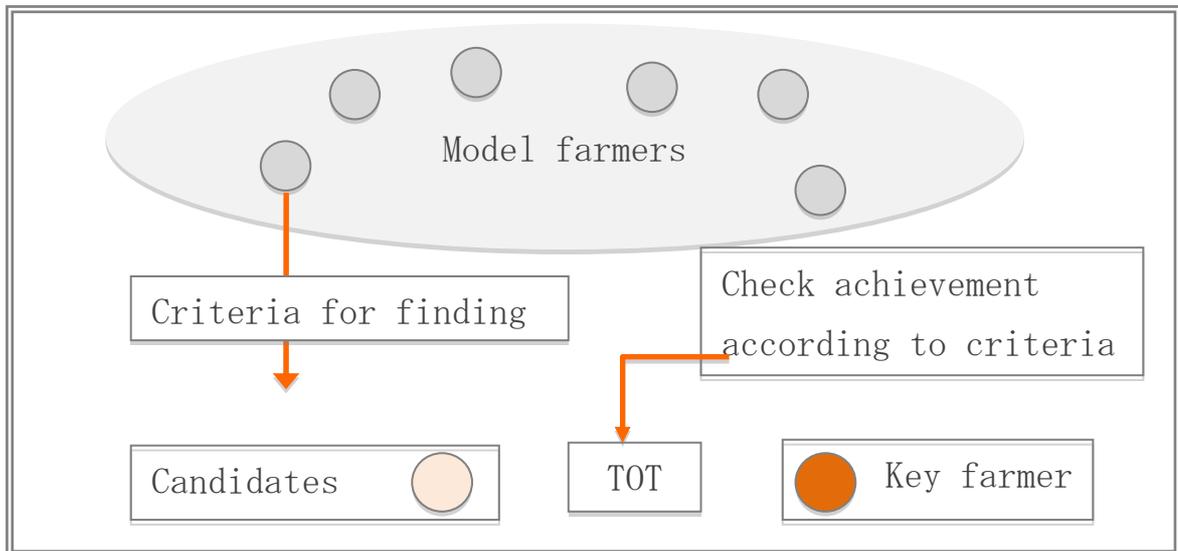
Feature: Using familiar pictures with farmers, sealed by laminate for better preservation.

Result:

- ⇒ Information card provided villagers with chance to know alternative skills even it does not explain the whole information of technique for farmers.



Goal of Step 3: Key farmer learn introduced techniques and get ability to support other farmers for further extension with local officials.



LESSONS : [X Not proper case O Proper case]

■ **Lesson 7: Key farmer shall have not only *will* but *proper condition* on cultivation and skill.**

X In 2010, Mr Phuk planted grass however could not utilize it because of long distance to home.



Grass field of Mr. Phuk was not used because of far distance from his house

O In 2013, Mr. Puih was selected as a key farmer among other candidates because he has not only will but proper condition including water supply for irrigation and short distance to home.

■ **Lesson 8: Key farmer should be willing to share his/her knowledge and experience to other farmers in both inside and outside target area enthusiastically**

X Mr. Lit was chosen to be key farmer because of his proper ability on cultivation. He was a model household who learned agricultural technique well. But after discussion, he refused to be key farmer because he did not have much time to be trainer of WS in other commune which was one of the most important project activity.



Mr. Puih is instructing how to make Bokashi (a kind of organic fertilizer) to farmer in Kon Chieng commune

O Mr. Puih is one as Mr. Lit situation but he is willing to go to other commune to share his knowledge and experience.

Criteria learned by implementing Step 3

1: Criteria for Finding key farmers among models

Key farmers should be:

- ✓ **Fluent** in speaking both Kinh and Bahnar Language.
- ✓ **Interested** in learning new technique.
- ✓ Farmers have applied those techniques in their own field.
- ✓ **Willing** to share knowledge and experience to other farmers enthusiastically.



Pepper seedling prepared by a key farmer after training

2: Technical criteria for training of trainers

These criteria should be utilized by local officials and key farmer after training for achievement analysis.

Example:

“Technical criteria for Pepper seedling”
set by DPC official” and check list

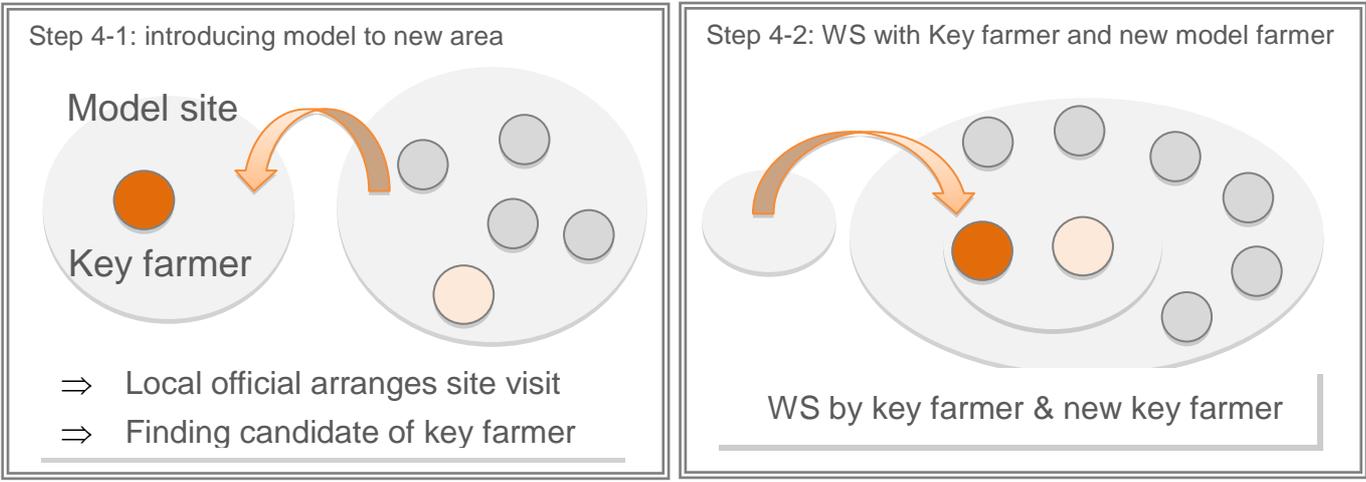


Key farmer learning how to select source for seedling

	Technical check point	Not effective	Effective	Comments / Signature of DPC official
1	Know how to select source for seedling			
2	Know how to prepare soil for seedling making from necessary materials (soil, fertilizer, fungicide, rice husk charcoal, etc.)			
3	Master technique of putting soil into plastic bag			
4	Know how to make sunlight reducing trellis and surrounding barrier			
5	Know how to classify seedling after 2 months for better caring for each kind of seedling (good, medium, bad)			

Step 4 Disseminating / sharing the model with Key farmer

Goal of Step 4: Local officials disseminate integrated model cooperating with key farmers, and candidates of key farmer in other area are found.



LESSONS

Lesson 9: Key farmer should attend extension WS organized by local officials as main trainer

Reason: Farmers might trust Key farmer's ability by observing practical technique and its effect, especially among ethnic minority's society.

Lesson 10: Key farmers can continue sharing the techniques with villagers by practice, as demonstration.

Reason: Key farmer continues practicing technique and support neighbors in daily life, not only in WS.



Lesson from Farmers Field School (FFS) in Chup hamlet, Lo Pang Commune
FFS in the project: Field school for leaning among farmers led by key farmer in the village
[Key lesson]
 Every participant including women and children accept smoothly when their key farmer explains.
[Procedure of FFS in Chup] for setting opportunity to share techniques among villagers

Crop calendar
made by villagers

Theme of next class
discussed by them

Demonstration of
key farmer or others

Practice of participants
Key farmer and local officials support their understanding.

Case Study of actual activities on Step 4-1, 4-2

Step 4-1: Introduction of key farmers to villagers in other village

In case of introducing the model to other area, local officials organized **site-visit to the field of key farmers** inviting new participants, in order to share actual practice of key farmers and benefit, and also to find new key farmer according to the criteria.



Date/ Place: Feb. 2013 / Mr Plinh in Kon Thup

Purpose: For sharing the model field of key farmer with new participants of member of livelihood improvement class in Chup hamlet.

Result:

- Participants recognized effect of those techniques what key farmer implemented in his field.
- Some participants suggest idea that they want key farmer instruct some important techniques for them.
- Some candidates were selected as new key farmer by primary key farmer and local officials.



After this WS, Mr Plinh has transferred techniques to new key farmer in Chup hamlet

Step 4-2: WS in other communes with key farmers from model village

After visiting model site, new key farmer started constructing model in other commune. For setting model, original key farmer supported by techniques.

Date: 25. Feb.2013 / Dak Trok village in Dak Ya commune

New Key farmer: Mr Khuch in Dak Trok, Dak Ya

Original Key farmer: Mr Plinh in So Bir, Kon Thup

Local official (DPC): Ms Dung

Purpose: To transfer method of organic fertilizer processing and pepper nursery making

- Key farmer (Mr Plinh) transferred techniques by doing practice together with other trainees in the village.
- Mr Plinh explained essential technique by their own language to trainees.



Mr Plinh mixing materials with participants, and Ms Dung facilitating Mr Plinh and participants when it was necessary

After this WS, 5 trainees have started processing Bokashi by own investment.



JAPAN INTERNATIONAL COOPERATION AGENCY
The Project on Capacity Development of Participatory Agricultural
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