

# GUIDE- HANDBOOK OF IMPLEMENTATION OF COMMUNITY-BASED RURAL ROAD MAINTENANCE AT HAMLET LEVEL IN BEN TRE

## A. INTRODUCTION

All contents related to the model and pilot activities of community-based rural road maintenance which was implemented in 9 hamlets of 4 districts in Ben Tre province has been recorded, corrected and compiled into a document called “guide- handbook of implementation of Community-based rural road maintenance at hamlet level (hamlet)”

This document was written by the Center for Environment and Transport Development (preside), Ben Tre Road and Bridge Technical Science Association and Quang Binh Community Development Centre. The document will serve as a guiding tool to extend and multiply the model of community-based rural road maintenance of rural roads which was implemented in nine pilot hamlets to other communes and other districts in Ben Tre, at the same time, it is the potentiality to multiply the model of community-based rural roads maintenance group in Ben Tre province to other provinces.

This document is used for district and commune government officials to organize and to build the model. It also is used for the core group to execute activities of the model of community-based rural road maintenance.

## B. CONCEPTS

***The work of maintaining roads consists of frequent maintenance, periodic and extraordinary repair.***

***Frequent maintenance*** shall be implemented daily, monthly and every quarter in order to observe the condition of main road, propose resolutions preventing the broken conditions, repair failures immediately due to internal impacts on the construction quality, maintain normal conditions of the construction in order to ensure the safe and smooth traffic.

***Periodic repair*** will fix failures of constructions in accordance with the stipulated term combining repair of defects that arise during the term of exploitation in order to overcome the technical conditions and improve the conditional exploitation of construction.

***Extraordinary repair*** will fix all un-forecasted accidents due to the natural calamity, floods, storms or extraordinary accidents. The group of rural traffic maintenance shall actively and dynamically mobilize forces, materials, and devices in order to ensure the traffic arrangement and instruct the traffic divergence; report to authorized agencies in hamlet and commune and the public media means as the highway bridge is broken seriously..

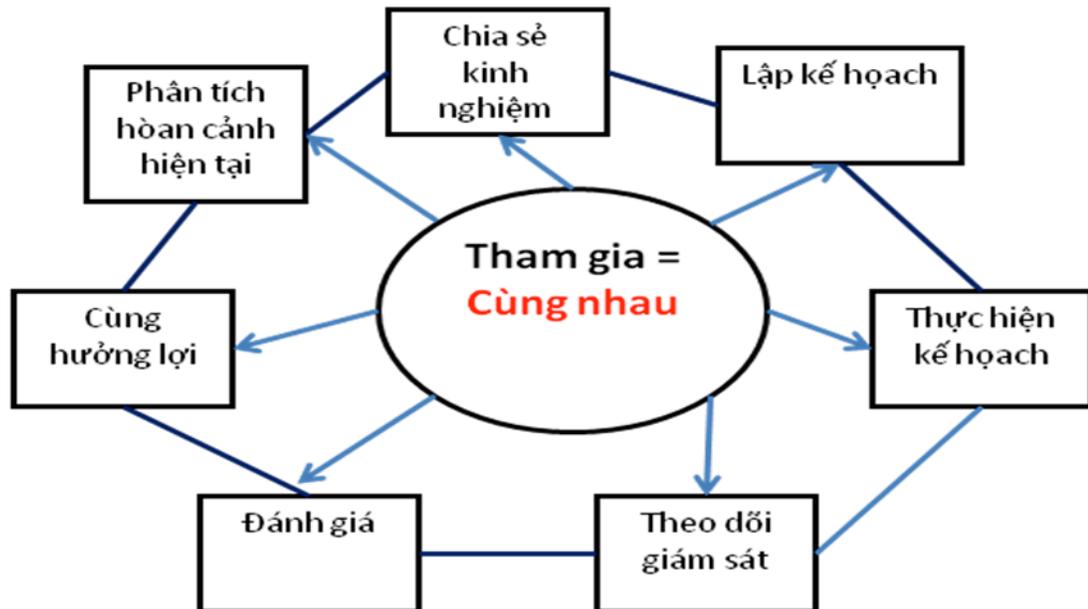
### ***What is Community?***

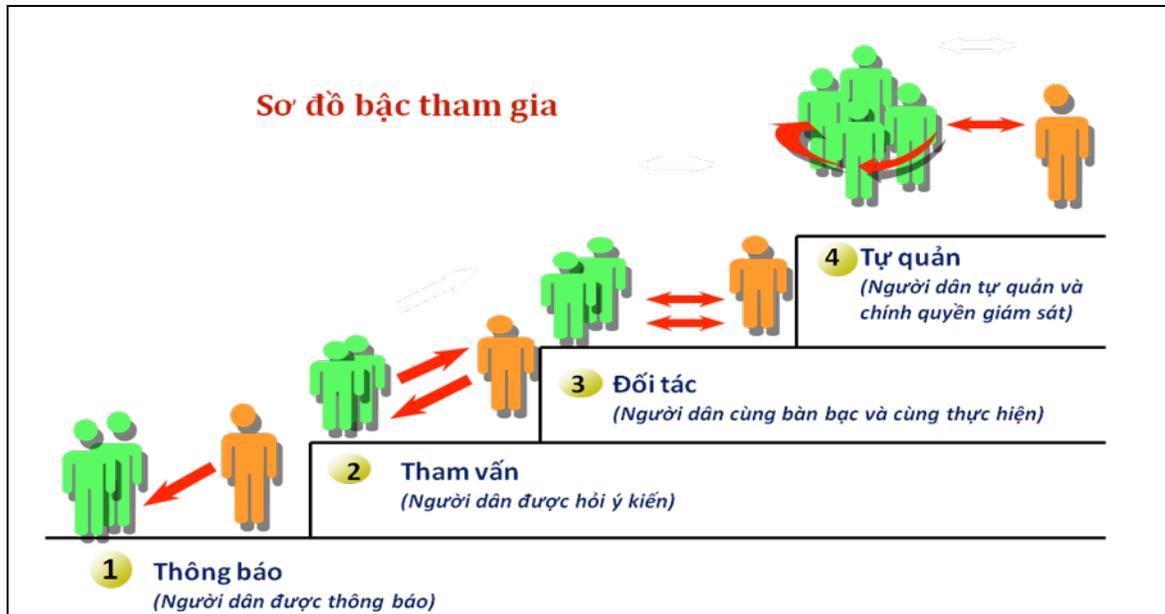
- The community is a group who share common values or interests, ready together to implement collective actions to create or protect the common value and benefit of the community.
- Community operates under principles:
  - + Volunteer members
  - + Solidarity in a spirit of reciprocity
  - + directly participate and directly have relationship
  - + to lead by persuasion and setting example

### ***What is participation?***

Participation is a process where the parties concerned together exert their influence and together share and control resources.

Participation means that we share experiences and information with each other, together analyze the current situation and work together to make plan and act, together monitor and evaluate implementation process and enjoy the interests. (see diagram)





### ***Why do we have to participate?***

- (i) will make wiser decision
- (ii) To mobilize the internal resources
- (iii) To increase self-control and ownership of community
- (iv) To build a close-knit community
- (v) To have power and collective understanding
- (vi) the community' ability will be improved
- (vii) To ensure the sustainability of management operations ...

### ***What is management community?***

Management community is a management method in which people are subject. They know how to organize themselves to identify priority issues, know how to make plan, organize, implement, supervise and evaluate development activities in a public and transparent way as well as ensure responsibility. Since then, people are actively take part in the process of making plan and decision in the local area.

### ***The purpose of management community:***

Self-management: the community has the right and ability to make plan, implement, supervise and evaluate the development activities according to their needs. Community owns their development process.

### ***The essence of community-centre development is:***

- Community owns the development process and actually see that it is their process, by them and for them;
- Community decide priorities according to their development demand under the principle of making plan and making decision with participation of community

members;

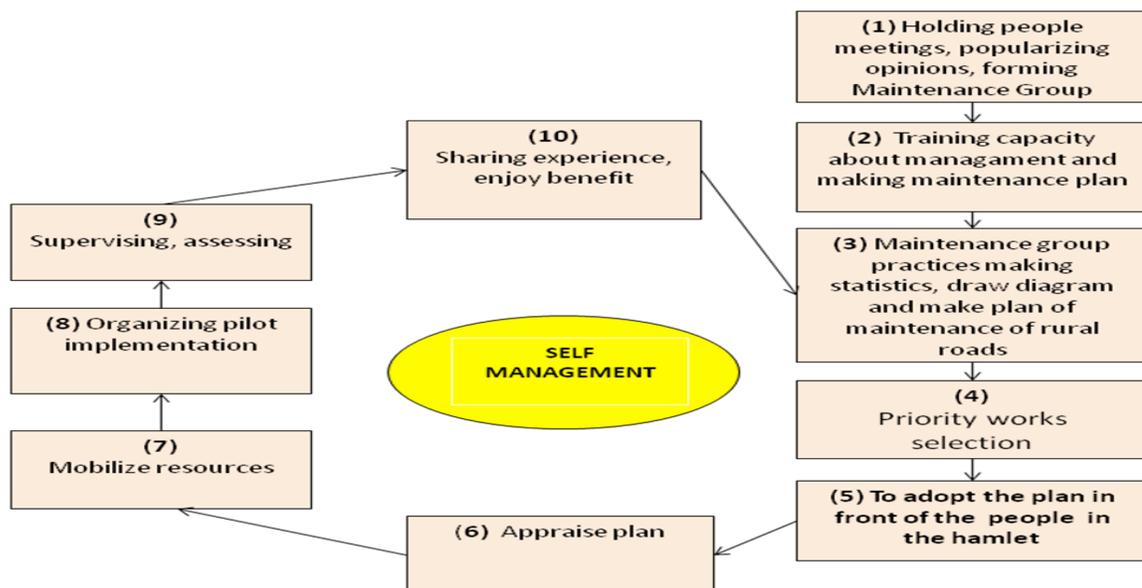
- The knowledge and experience of the community is mobilized, used and promoted in building solutions for community development as well as to ensure these solutions are consistent with the special circumstances of the community;
- The institutions that are understood as regulations and custom for maintenance of coordination and cooperation among community members need to be analyzed and fully utilized;
- Community make decisions and manage the use of resources according to their priorities.
- External Resources for community will be directly sent to the community;
- Community directly take part in the process of planning and implementation of plans / decisions, supervizing and evaluation to learn from experience;
- All work managed by community is public and transparent;
- Community know, community discuss, community implement,community check and community enjoy benefit.

### ***What is community-based maintenance of rural road?***

Characteristic of community-based maintenance of rural road is that community (group of individuals living in villages, hamlets, communes or public organizations in local areas) participates actively in the management, preservation and maintenance of roads. This work covers the process from planning to maintenance, mobilization and management of fund, supervision, making decision and implementation of management and maintenance activities of rural road.

## **A. FORMATION STEPS OF COMMUNITY-BASED RURAL ROAD MAINTENANCE MODEL**

Formation steps of community-based rural maintenance model in the diagram below



## HOW TO ORGANIZE IMPLEMENTATION OF THE STEPS ABOVE?

### **Step 1: Holding people meeting with villagers, popularizing opinions, forming maintenance Groups:**

Objectives: To propagandize propagate necessity of implementing rural road maintenance; to mobilize community to take part in rural road maintenance; to disseminate idea of the pilot model; to form rural road maintenance group at hamlet level.

Participants: People in pilot hamlets

The presiding unit: People's Committees, Hamlet government level

What are main contents to disseminate and mobilize people?

First, it is necessary to explain the following concepts clearly and systematically: The concept of community; the principles of operation; what is specific work that community take part in? How is self-management by community; why people need to take part in maintenance of rural road, etc. (to bring up and develop the concepts mentioned above).

To explain the benefit of the maintenance of rural roads to people, but firstly people need to know what rural road maintenance is (above). What is difference between maintenance and new building? Why people need to take part in maintenance of rural road, etc. In order to get a good result, should state the specific evidence to explain the contents above in the meeting.

Residents community in each hamlet together have spent a lot of effort and money to build rural roads, which is the common property of the community, the community must work together to manage, preserve this common property. Why? Because after the completion and putting into use, these roads will degrade over time, if we repair the road when it just is damaged at once, we need a little money, otherwise it will be quickly damaged more serious, then we have to spend much more money to repair (e.g., that we only spend about 200 thousand VND to fix damaged roads when the damage is small, otherwise if we do nothing and leave it badly damaged, we can take up to 1,000,000 VND to repair this damage). In addition, we also get many benefits from the participation in management and maintenance of rural road systems such as : roads are always smooth, safe, creating beautiful landscapes for sharing benefits etc.

The government and people will discuss and share everything related to how to make all people to participate in management, preservation and maintenance of rural road systems in every hamlet. Next, the commune government will disseminate idea of forming maintenance team (core group) in each village; to explain what tasks of the maintenance group are for the community. It is important to build Core Group in maintenance of rural roads based on the Core Group in building new rural road.

The maintenance group bears responsibility for the whole process of organization, implementation of management, implementation of maintenance, including: survey,

statistics of road status, making plan, mobilizing resources and executing maintenance, summarizing, evaluating and coordinate parties related to organization, management and maintenance in each hamlet.

After the community understands, people in each hamlet will elect about 7 to 10 people as members in the maintenance group, including 01 group leader, and deputy group leaders, accountant, treasurer depending on the actual situation in each hamlet. Members of the maintenance group should be prestigious people, they have knowledge, they are an active part in the community and should have representative in the self-management group in the hamlet, etc.

## **Step 2: Capacity Building**

After have the result of maintenance group election in each hamlet, the content of particular importance is to build, train to raise the ability of members in the maintenance group.

Objectives: In order to make every members of Maintenance group can self organize community, set up maintenance plan, organizing implementation of plan, skills of evaluating and checking the plan implementation, skills of mobilizing resources, skills of preparing general reports and sharing experience.

Participant: All members of maintenance group, Some members in local authority of Communal People's Committees.

The presiding unit:: Ben Tre's Bridge and Road Technical Science Association.

### ***What need to be trained for members of the maintenance group (Core Group):***

- Concepts and way of organization and management of rural roads including setting up the road network map in Hamlet.
- To set up plan of monthly and annual maintenance.
- To assess the road status and arrange according to priority to implement maintenance.
- skill of maintenance technique
- skill of resources mobilization
- Financial Management
- skill of wring reports

### ***Setting up the hamlet rural road network map.***

*What is the hamlet road network map?*

*The hamlet road network map* is an A0-sized-diagram that shows the status of roads, bridges, culverts, canals, etc. of the local area. The information should be shown on the hamlet road network map at least is:

- The existing roads in the hamlet and their locations.
- Road notation by color lines, or notes (eg, soil road, gravel road, cement concrete, asphalted road, etc).
- Notation by road function (provincial road, district road, road to the commune center, hamlet road.
- To show bridges, culverts on the roads and their location.

- Boundary hamlet and some locations of CPC office (if any), cultural house, people's house, etc.
- Notes full of notations, types of road in the diagram

**Who will set up the hamlet road network map and what are steps of carrying out?**

The maintenance group will set up the hamlet road network map by themselves, they discuss together, survey and set up the map.

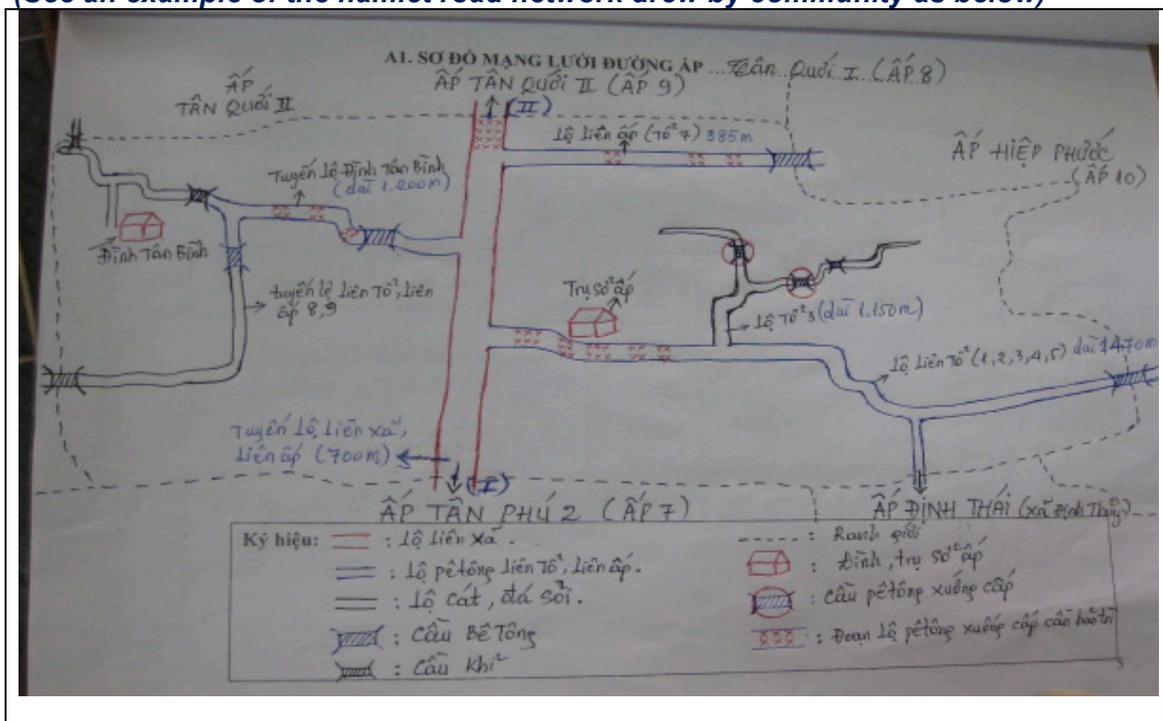
Preparation: Paper Ao (large size), A4 paper, pens, place to discuss.

Establish group: choose at least 5-7 experienced people (both men and women), appoint an instructor and a person to take notes.

Group leader makes questions to discuss to get information about the current status of road in hamlet.

Discussing while drawing the diagram on paper Ao, determine the boundaries of 4 sides of the hamlet, the road's axis, bridges / culverts, canals / ditches, residential areas, etc.

**(See an example of the hamlet road network drew by community as below)**



**1) Statistics of the rural road in the hamlet**

Statistics of the rural road is to list all roads, bridges, sewers in the road network map which was set up and fill out the form includes the following basic information: the name of road, length, road-bed width, road surface width, road surface structure, numbers of bridges / culverts, length, type of bridge /culverts, notes the status of each road quality, types of motorized vehicles can be allow to travel on each road, notes the time of construction and completion, etc.

To do this work, the maintenance group must rely on the hamlet road network map that is drawn to survey measuring length, road-bed width, road surface width, count bridges, culverts, measure length, width of surface bridges / culverts, and notes the status of each road, bridges, culverts, and synthesize statistics, evaluate on the following form

### Statistical sample of the rural road network

Hamlet: ....., commune:..... district:.....								
Order number	Name of road	length	Width of road-bed (m)	Width of road surface (m)	Type of road surface (m)	Concrete bridge (No. of bridge/mett er in length)	Foot bridge (No. of bridge/m etter in length)	Culvert etc.

### Mẫu phiếu khảo sát đánh giá thực trạng đường (có thể sử dụng cho cầu)

Sample of survey of evaluating road status (can be used for bridge)

Hamlet:		Name of road:	
Length of road:		Road surface:	Survey date:
<b>Damage and sphere of influence on road</b>			<b>Notes</b> (damaged, need to be repaired immediately or should be mornitored, caused by construction error or by using)
Section of road (house A to house B, or number on hamlet road map)	<b>Describe damage</b>		

## 2) To assess the status of rural road in the hamlet

We had road network map and statistics of the network of rural roads, bridges, and culverts in the hamlet. To help for the management and maintenance of road networks, we need an evaluation of this road system.

This evaluation is presented in evaluation report, the content of the evaluation report is to answer at least the following question?

- a) How is the condition of road quality in the hamlet now?
- b) Why road quality now is that so?
- c) With the situation as the current road network, how does it affect daily life, daily travel of people?
- d) What is main work that we must do to repair damage or degradation of the rural road network in the hamlet today as well as in coming time?
- e) We overcome the degradation or damage to the road network in conjunction with new construction or rural projects and works related to how effective?
- f) What are the main and important contents that need to bring out in the plan of maintenance of rural road in the hamlet in the year? etc.

### **3) To analyze advantages and disadvantages, opportunities and challenges to community are in the hamlet**

To analyze strong points and the point that should be overcome in each community, the opportunities and challenges from outside have a good or not good influence on the community life.

To promote strong points, inherent advantages of the community and take advantage of opportunities of outside support to improve the living conditions of community. The ideas, solutions to overcome existing point and limit the factors that may affect badly the activities for improving the living conditions of community.

What are strong points and weak points of community? (eg: strong points: abundant human resources, people have good sense of maintenance work and people actively to participate in the maintenance of rural road , available material resources, etc. or weak point: economic difficulties so the call for contributions is very difficult, etc)

Opportunities from outside such as fund resource supporting for the maintenance of rural road has been from the commune, district, province, etc. or there are many sponsors willing to help resources. We can meet the challenges such as how to prevent tractors, trucks transporting goods on the rural road, but not affect transport of goods demand and local economic development, etc

The main problem is that after we identify the strong points and weak points, opportunities and challenges, what must we do to promote strong points and overcome weak points, take advantage of opportunities and have solution to overcome the challenges.

*We will gradually comprehend this knowledge and improve gradually in the process of implementation our work as well as we are trained through courses to improve our knowledge..*

## **1) Making plan for maintenance of rural road**

This is the main content after we've done the above steps and the main goal of implementation of community-based rural road maintenance model.

Plans of management and maintenance of rural road in the year include:

The roads, bridges, culverts need to be implemented:

- + Regular repair
- + Periodical repair
- + Big repair
- + Estimate cost for each maintenance work
- + Implementation time

Estimated cost needs for each rural road work shows:

- + Cost of materials (cement, soil, rock, sand, gravel, sticks buy from outside)
- + Transportation (hire from outside)
- + Transportation (contributed by the community)
- + Labor (by volunteer from community)
- + Labor (have to hire)
- + Other expenses (community's contribution)
- + Etc.

Implementation plan shows what specific steps implemented, how long to implement those steps, and who is responsible for implementation. A detailed plan should be clear. The plan should identify what specific activities to do this work? What time each specific activity should be completed / executed? Who is best suitable to implement this activities?

***Below is a sample of content of rural road maintenance plan***

Plan of management and maintenance of rural road of  
**Hamlet .....Commune .....district....., Ben Tre province**

**1. Background and reasons of implementation:**

.....

**2. Objectives of the plan/ project:**

.....

**Results need to obtain:**

Results need to obtain	Measure index

**3. Activities and implementaion time:**

Name of activities	implementaion time:	Main responsible person

**4. Fund:**

Total of fund for implementation of maintenance plan /year..... is:.....VND, in wich:

- People's contribution (workday + cash): ..... VND
- Fund supported from commune (if any): .....VND
- Fund supported from organization, other individuals: ..... VND.

And: workday payment: .....VND/workday

- Marterials: .....VND
- Machines: .....VND
- Other expense (specific).....is .....VND

**5. Implemetation option:**

a. For regular maintenance:

.....

b. For repair activities:

.....

**7. Plan of use and management of cost:**

.....

Date   month   year

**Stand for maintenance group**

(sign)

Detailed plan and implementation time						
work item	January	February	.....	.....	November	December
1. Statistics and evaluation of road condition, setting up maintenance plan						
Regular work						
1. Clear trees on the both sides of road						
2. Cut and clean up grass						
<b>Periodical repair</b>						
1.						
2.						
3.						

Estimate cost of maintenance					
<b>Name of work:</b>					
Work item	Unit	Volume	Price	Amount	Notes
A) Materials					
1) Cement					
2) Stone 1x2					
3) Sand...					
B) Labor					
1) Mason					
2) Manual labour					
.....					
Total					
<b>Team leader</b>			<b>Check</b>		Date month year <b>By</b>

Synthesize fund plan						
Work item	Unit	Total of cost or workday	Trong đó			
			Budget (VND)	Fund from sponsors (VND)	Fund from people (VND)	workday (day-man)
A) Materials						
B) labor						
C) Other.						
Total						

### **Step 3: Choose the priority work and approve the plan in front of community**

Through analysis and evaluation, we will have to choose works; what work should be prioritized before, what road need to be maintained before any what road will maintain after that, and need to implement objectively based on status and the importance level of each route for evaluation and priority choice.

Then the maintenance group will inform and get idea widely and unity with the community on this plan.

### **Step 4: Verification of plan**

Transportation professional staff of District People's Committee, commune people's committee, or expert of Road and Bridge Technical Science Association will support the entire check of plan content including cost estimation, then discuss and share with maintenance group to adjust, supplement into the final plan. After that, the maintenance group will inform to the community and the final plan will put up at the hamlet cultural house, then photo copy and send to CPC and DPC.

### **Step 5: Mobilization of resources**

Basing on the plan, the maintenance group will directly go to mobilize resources inside and outside of the community; mobilizing resources includes cash, workman or any kind of resources to implement the plan.

It is important for us (the maintenance group) to know how to improve skills to convince community, sponsors or anyone in order to them willing to contribute actively to implement the plan. We prove useful of the contribution that they can deliver, prove financial transparency will certainly have more opportunities to receive donations of resources inside and outside of the community. Those resources could be cash, labor, mid-shift meals, transportation, donation of land, sticks, materials, etc.

### **Step 6: Set up plan of maintenance technique and maintenance execution**

The members of the maintenance group need to learn about road maintenance technique (*Refer to the hand book maintenance of rural roads by the Ministry of Transport in 2003*) or they may be improved maintenance technical ability through training. The maintenance group base on the actual requirements of volume of maintenance work to make plan of execution of rural road maintenance work. The contents of the plan indicate the way to maintain depending on each type of specific damage ? How to assign specific tasks to members of the maintenance group? How to arranging community participating in contribution of workman for effectively? How to complete?

### **Step 7: Organization of monitoring and evaluation.**

Maintenance group need to monitor and record the entire process from executing to finishing the job so that to examine and draw experience to be able to do better the following work. Besides, people both take part in maintenance and evaluation of every implemented work to know if every work be suitable to the original plan or not? etc.

### **Step 8: To summarize and reward**

Maintenance group will hold preliminary meeting to synthesize and evaluate the implementation of maintenance plan after first 6 months of plan implementation. The objective of synthesis and evaluation is to take experience and to adjust plans (if necessary) and to give the direction for implementation of maintenance plan for last 6 months of the year. At the end of the year, need to sum up and evaluate the whole process of implementation of plan and report for all people in the hamlet, as well as set up plan for the next year.

## **APPENDIX 1**

### **PROPOSAL OF FINANCIAL MANAGEMENT**

#### ***For The Maintenance Team***

- Every hamlet hold the meeting and elect maintenance group representative for making plan, mobilizing resource, organizing implementation and management of maintenance funds for their hamlet. Choose a group leader, 1 accountant and 1 treasurer to be responsible for the management of records and documents.
- The road maintenance group will stand for the whole people in the hamlet to sign cooperation agreement on the implementation of rural road maintenance plan with parties that have funds (if any).
- The road maintenance budget supported by sponsors can be transferred directly to the hamlet in cash or transferred to hamlet's account for rural road maintenance at the bank (according to expectations of the hamlet and regulations of sponsors and local area).
- If supported fund is transferred directly into the account at the bank, the maintenance groups need to withdraw money according to each period of maintenance implementation, to avoid keeping cash over 10 days with large amounts in the hamlet.
- The maintenance group is responsible to monitor the receipts and items of expenditure for each maintenance plan openly and transparently. The information related to the receipts and expenditure for each plan / project in each period is disclosed and listed at least once a month on the information board of the hamlet or in the self-management group.
- The maintenance group is responsible to keep books, invoices of maintenance activities and submit financial reports to sponsors and parties involved (if required).

#### **For people**

- To improve self-management ability and extend the life of the rural road works / highway, parties that enjoyed benefit need to actively participate in and contribute to the rural road maintenance activities in their hamlet.

