

Research Article

Research on the Capacity Building of Xin Sheng Bamboo Planting Special Farmer Cooperative in Na Kou, Shao Wu City, Fujian Province

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Abstract: In order to conduct training to the forest resources management plan formed by farmers in a participatory way, This research mainly aims to promote stakeholders in different levels of forestry departments and collective forests management, especially forestry farmers and their cooperative organizations, to recognize major problems existed in the collective forests management, to improve the level of sustainable management of the collective forests and to make and implement reasonable management schemes of collective forests so as to form the mechanism of participatory coordination management.

Keywords: Capacity building, Fujian province, special farmer cooperative

INTRODUCTION

Since 2004, Chinese government has launched the construction of a new round of collective ownership of forests system. After the collective ownership of forests reform, how to strengthen forest resources management, how to make improvement at management level and how to increase the revenue of forestry farmers as well as their cooperative organizations have become key issues which may influence the reform effect and sustainability. The existing forest resources management system, along with collective forest management mode, has to some degree ignore the principal status of forestry farmers, which may make it difficult for diversified or cooperative management to promote effective distribution of forest resources. Therefore, the forest resources working plan can effectively guide forestry farmers to carry out forestry production activities while the participatory approach can help strengthen forestry farmers' management awareness and skills and their cooperative organizations, promoting their initiative in the forest management system and policy reform and improving forestry farmers' participatory degree in constructing the follow-up policies after the reform.

LITERATURE REVIEW

Zheng *et al.* (2009) points out in an article named The Management Mode of Forest Resources and Assets in Fujian Province that, the main management modes of forest resources and assets in China at present include the management mode of the economic sector under ownership by the whole people, the mode of the rural

collective forest farms of collectively-owned economic sector, the mode of the economic sector under individual ownership, the mode of private forestry enterprises of private economy and the forestry joint management mode of an economic sector of mixed ownership. Cheng and Zhou (2009) mention in the article Review on the Supplementary Measures of the Collective Ownership of Forests Reform that, after the forestry reform, the mountain forests have been allocated to each household and the clarification of property right makes the owners' interests more direct.

Scholars generally believe that participatory forestry plays an important role in promoting local ecological, economic and social efficiency (Tan *et al.*, 2001; Zheng, 2003). First, Tan *et al.* (2001) believes that as participatory forestry uses a process of "from bottom to top", fully adopts farmers' opinions and represents their interests, it optimizes the social environment as well. Second, Participatory forestry lays stress on the participation in the whole process and emphasizes farmers' benefits in implementing forestry activities. In this way, Farmers' initiative and enthusiasm have been aroused. Third, technologically, participatory method accentuates much the indigenous rural knowledge, public techniques and skills, thus it enhances the correctness and feasibility of its technology (Tan *et al.*, 2001). Zheng (2003) thinks that based on traditional forestry, the participatory forestry combines social science, takes human element into full consideration, organically integrate public interests and community interests and satisfies the demands of community public from the core. In this way, it can both meet farmers' economic demands and obtain some ecological benefits.

Table 1: The detail list of different land that each village possesses

Name	Zhu Qian	Zhu Fang	Jia Shang	Chi Xia	State-owned	Total
Mao bamboo (acres)	170	1215	5123	6742	506	13756
Broad leaf (acres)	0	149	786	2069	169	3173
Fir (acres)	0	532	58	23	76	689
Total (acres)	170	1896	5867	8934	751	17718

(Data source: filed research)

Table 2: Target group and the expected aims

Target groups	Expected aims
Cooperative members	1. To gain further and deep information about the cooperative's resource status and its operating and management status; 2. To get to know cooperative members' thoughts and plans towards the cooperative's future development; 3. To provide them training on the forest management and enhance their consciousness of sustainable forest resources management.
Cooperative non-members	1. To get to know cooperative non-members' forest land management status; 2. To figure out the reasons why they don't join the cooperative; 3. To provide them training on the forest management and enhance their consciousness of sustainable forest resources management.
Staff from Na Kou township forestry station	1. To get to know the roles that the township forestry station has played in the forest management; 2. To get to know staff's ideas towards the forest management project; 3. To provide him training on forest management and enhance his professional proficiency.
Staff from Shao Wu Forestry Bureau	1. To get to know the roles that the Forestry Bureau has played in the forest management; 2. To get to get to know the staff's ideas towards the forest management plan; 3. To provide him training on forest management and enhance his professional proficiency.

We can see that foreign countries have paid much attention to forest management, its efficiency and participatory forestry. Viewing from the research content, foreign nations mainly concern the features and problems in forest management activities conducted by various management entities, while China has integrated the current collective ownership of forests reform and pays attention to the problems existed in forest management. In a word, the current research results and practice approaches may provide enlightenment in the selection of research methods, the decision of research perspective and the design of research content. Besides, current studies also show that even though the collective ownership of forests reform makes the resources ownership much clearer, however, how to improve management level and carry out standard administration is not only important to the improvement of the distribution efficiency of collective forest resources, but also overriding to ensuring the realization of the goals of the forest ownership system reform.

General information of the cooperative: The cooperative, 20 km from the town and 56 km from the county, has a distance of 20 km from the main road. Co-founded in 2008, it utilized the mao bamboo planting land of the forestry farm and attracted many large bamboo planters around, gradually developing into a bamboo production, management and sales-oriented farmer cooperative. Registered in the Industrial and Commercial Bureau, it was created by Zhang Jiasheng and was designed to co-support the village's development and the sharing of technical resources.

The original 5 shareholders of the cooperative has developed into 22 by the end of 2009 (Shareholder's name and their form of capital and capital contributions are as shown in Table 1). It has influenced about 50

farmer families around and has a management area of 195000 acres with the main products being mao bamboo and fir. The cooperative mainly engages in bamboo forest management, forestry cultivation, bamboo cutting with bamboo wood processing machines and other activities. The annual output revenue can reach 16 million Yuan with an annual profit of 2.4 million Yuan. The cooperative has received financial subsidies and technical supports from the relevant administrative departments and has enjoyed the policies that a cooperative deserved.

The cooperative's running unit is the town-owned forestry farm in Na Kou town. The forestry farm has state-owned forests, public welfare forest and bamboo forest. Those lands are collectively owned by the village and are the original forest lands contracted to the farmers to self-manage during the "Three Decision" period and continue to be theirs in these days. Currently the farm has 17,718 acres land in total (Table 2), of which 13,300 acres are given to the cooperative to run unified management.

The operating plan of the cooperative: The cooperative has a forests operating plan, which is designed by the General Meeting of Commune Members (which is held at the start of a year) according to each shareholder's interests and situations. As for the operating activities, the cooperative will give technical guidance to each member, checking progresses regularly and check and accept results at the end of each year. Operating works of the cooperative are implemented under the supervision of the Board of Supervisors.

Organization structure and governance mechanism of the cooperative: The cooperative operates according to its joint-stock system. Cooperative members are

different in their contributing shares: the capital of the First Shareholder occupies 50% of the total capital stock, which making him one of five directors of the Board of Directors which consists of the cooperative's top 5 largest contributors whose contributions making 80% of the total capital stock. The appointment of the 5 directors is mainly based on the amount of money they had contributed. In the Board, there are 172 members in total: of which 22 are large manufacturers and distributors or members from supply and marketing cooperatives, leading enterprises or rural grass-root organizations while the rest 150 are non-members of cooperative. The president of the Board is also the manager of the cooperative. All members of the Board have hold 80% of total shares. In 2010, the Board meeting has already held four times in total and each member has only one vote to participate in the decision making. In 2010, the Commune Members' Representative Assembly only held once in total which taking the one-person-one-vote policy as well. A large capital contribution or a large volume of transactions does not endow an additional vote in the assembly.

The cooperative has detailed minutes of the Board Meeting and the Assembly and a complete and specified transaction record of each member's production sales. In 2010, financial records of the cooperative have published once. Members of the cooperative have all the rights that the constitution has endowed and has the right to refer to or examine the meeting minutes and financial records mentioned above according to certain regulations. The cooperative has members recorded, which had recorded the volume of each member's trading sales and the amount of public accumulation found surplus returned to them. The cooperative and its members have signed a stable purchase and sale contract under which: the cooperative, in the acquisition of the member's product, must pay them at the price that is higher than the market price and pay them at different price levels based on the quality of their products; when the cooperative providing agricultural resources to the members, it must charge them at a discount price, barely charge at the cost price; the cooperative may not give all the surplus to the members as regards their transaction proportion in the cooperative, it can take a part away as the public accumulation funds; when a member withdraw from the cooperative, basing on his capital contribution proportion, he or she can share the public accumulation funds and the unallocated property.

Current forest management of pilot cooperative: By the end of 2013: Its listed members was 22 and its has leaded 150 farmers in local community; the value of the fixed assets was 3 million Yuan; annual operating and service income was 17 million Yuan; annual surplus

amounted to 3 million Yuan, of which 20% were extracted as public accumulation fund, the community chest and risk capital. 80% members were returned with surplus according to their proportion of capital stock and another 80% members were returned by their transaction proportion. The cooperative has provided 5 times technical, business and cooperating guidance and training for the members with a total of 200 people. Members carrying out the production in accordance with the cooperative's technical operation compose a ratio of 90% and the processing area makes up a ratio of 75%.

Ideal mao bamboo is 6 years' bamboo, so existing bamboos are mostly bamboos of 2 years or 4 years with the 6 years' bamboo being cut down. Mao bamboo's growing process can be divided into 3 stages, every two years is a stage. For a large bamboo land, farmers will cut by turns, cutting bamboos in stage 3; leaving stage 1 and stage 2 bamboos growing continually; while for a small area, farmers will cut all as to save costs. The cooperative members stated that the ratio of bamboo numbers in different stages is 4:4:2 (that is stage 1: stage 2: stage 3 = 4:4:2) and the existing stage 2 and stage 3 mao bamboos are all maternal bamboos. The present forest lands that have joined into the cooperative all have the certificate of forest ownership. Bamboo resources are examined under the site conditions: a land with fertile quality can produce better bamboo with a largest diameter of 17 cm if possible.

MATERIALS AND METHODS

The project team provided a three-day training on participatory forest management plan preparation for the staffs from Shao Wu Forestry Bureau and township forestry station and members as well as non-members from Xin Sheng bamboo planting special farmer cooperative in Na Kou town from January 15 to 17. This section mainly describes the training methods, target groups and training arrangements.

Description of training process: The training process lasted three days. Attendees include 1 staff from Shao Wu Forestry Bureau, 1 staff from township forestry station, 4 members of the cooperative, 1 non-cooperative member and the project team members from Beijing Forestry University. The training uses meetings, brainstorming and other participatory approaches. By drawing resources map, using questions beam, the target beam, etc. and basing on the cooperative's operating status on forestry resources, attendees have discussed issues on the cooperative's operating conditions, the cooperative's advantages and disadvantages in its developing process, the strategic study of the cooperative's development and its future development directions.

Training methods: The training mainly uses participatory training method. Participatory training method is a training method that each trainee must participate in the exchange and sharing of information during the training process. In the participatory training process, the teachers and students are equal and students and students are also equal; everyone has the equal opportunities to participate. So naturally in this learning process everyone will boldly express his or her own views, experiences and confusions, which will greatly improve the trainee's self-confidence and sense of participation. The main feature of this method is that each trainee will actively participate in the training activities, gaining knowledge, skills and proper behavior from personal involvement. The participatory methods this training used are listed as follow:

Meetings: People seldom regards meeting as a method of training. Actually, participating in a meeting will make people exchange information, get inspirations, get to know the latest progress in a certain field and broaden his horizon.

This participatory method ran through the whole training process. By using this way, the trainer has brought together the target group to discuss the details of forest management plan's formulation.

Brainstorming: Brainstorming is an effective way to inspire everyone's thoughts and stimulate creative thinking. It can maximize the creativity of each participant, providing more and better solutions to problems.

The use of brainstorming requires only one topic, which is the specific problem that needs to be solved. Participants are gathered to freely express suggestions or solutions to that problem. Organizers and participants cannot criticize others' suggestions and proposals. After the brainstorming, views will be gathered and handed to all participants. Then the participants will exclude the duplicate and obviously unreasonable ones and re-design the proposals that contain vague expressions. Organizer will lead all participants to evaluate each solution one by one and finally select the best option.

In this training, brainstorming was mainly used to discuss the factors that affect the future development of the cooperative and to facilitate the using of SWOT analysis to explore the strengths, weaknesses and strategic analysis of the cooperative.

Target groups: The participatory process of establishing forest management plan mainly involves the following four target groups with respective expected aims. Details are provided in the following table.

RESULTS AND DISCUSSION

This chapter begins with the definition of stakeholders of the cooperative's forest management

plan. From the perspective of different stakeholders and basing on the scores that different stakeholders had given on the key issues in the training, the organizer will give an all-around assessment and evaluation for the training.

Training results:

The participation of stakeholders: Different stakeholders will maximize their benefits, respectively. According to their roles in the establishing of forest management plan, stakeholders involved in the forest management plan can be classified as the following 4 types:

Shao Wu Forestry Bureau: The Bureau can assist the cooperative to make and design the forest management plan; put forward farmer-preferential policies; give forestry subsidies to the forestry farmers and lessen their taxes; provide guiding suggestions for the agricultural and forestry cooperatives from the perspective of the government.

Na Kou township forestry station: The township forestry station is responsible for implementing the policies, proposals and suggestions that the Forestry Bureau had made; supervising and managing the cooperative's operation.

Cooperative members: The most important target group in the making of forest management plan is the cooperative members. After several conversations with them, the cooperative's forest resources management status and its operating status has been known as well as the members' wiliness and suggestions on the making of forest management plan.

Cooperative non-members: Get to know their management status of their forest resources and the reasons why they don't join the cooperative.

Their assessments on the training: After the training, stakeholders were asked to take a survey to evaluate the training and grade¹ on some key issues. The specific feedbacks are as follow:

Staff from Shao Wu Forestry Bureau: Before the training, the staff from Shao Wu Forestry Bureau had no totally no idea about some issues. These issues are: how to make SWOT analysis; how to make strategic decision; how to making participatory monitoring outline for forest management; how to help farmers to make draft plan for forest management development and how to utilize developing plan for forest management to improve farmer's standards of living. Moreover, the staff claimed that he is not very clear about the following issues: his responsibilities in the forest management; how to explain participatory forest

Table 3: Feedback table from the staff of the bureau

Training content	Before training	After training
Get to know the participatory forest management and define roles that farmers and forestry workers had played in the management	3	5
Self- responsibility in the management of forest	2	4
Able to explain how to prepare participatory forest management plan	2	4
Able to present how to make evaluation outline for forest management system	3	5
Present how to use appropriate analysis outline to evaluate forest management system	2	4
Obtain more information and design methods to meet those requirements	2	4
Present how to make trend analysis for forest management	2	4
Present how to make SWOT analysis	1	4
Present how to make strategic decision	1	4
Explain how to use logic framework to make developing plan for forest management	2	4
Explain how to make participatory monitoring system for forest management	2	4
Present how to make participatory monitoring outline for forest management	1	5
Present how to help farmers to prepare draft plan for the development of forest management	1	5
Present how to utilize developing plan for forest management to improve farmer's standards of living	1	5

Table 4: Feedback of the staff from the township forestry station

Training content	Before training	After training
Get to know the participatory forest management and define roles that farmers and forestry workers had played in the management	3	5
Self- responsibility in the management of forest	5	5
Able to explain how to prepare participatory forest management plan	4	5
Able to present how to make evaluation outline for forest management system	4	5
Present how to use appropriate analysis outline to evaluate forest management system	3	5
Obtain more information and design methods to meet those requirements	5	5
Present how to make trend analysis for forest management	4	5
Present how to make SWOT analysis	3	5
Present how to make strategic decision	3	5
Explain how to use logic framework to make developing plan for forest management	4	5
Explain how to make participatory monitoring system for forest management	5	5
Present how to make participatory monitoring outline for forest management	4	5
Present how to help farmers to prepare draft plan for the development of forest management	5	5
Present how to utilize developing plan for forest management to improve farmer's standards of living	5	5

management plan; how to utilize appropriate analysis outlines to evaluate forest management system; how to obtain more information and design methods to meet those requirements; how to make trend analysis on forest management; how to use logic framework to make developing plan for forest management and how to make participatory monitoring system for forest management. But he had some general idea about participatory forest management, the definite roles farmers and forestry workers have played in the management and the basic making methods of evaluation outline for the forest management system. After the training, he was trained to know or know very well about those issues. The specific scores that he had given for this training are listed in the Table 3.

Besides, the staff think that the “how to choose the most suitable management proposal and how to better monitor the management of the forest resources” part is most helpful to him. He also hoped to have more opportunities to attend such trainings on forest management in the future management works.

Staff from the Na Kou township forestry station: According to the feedback, we can find that before the training, the staff from township forestry station knew something about such issues: the content of participatory forest management and definition of roles that farmers and forestry workers had played in the

management; how to utilize appropriate analysis outlines to evaluate forest management system; how to make SWOT analysis and how to make strategic decisions. For issues as how to prepare participatory forest management plan, how to make evaluation outline for forest management system, how to make trend analysis for forest management, how to use logic framework to make developing plan for forest management and how to make participatory monitoring outline for forest management, he claimed to know. For his responsibilities in the forest management and issues as how to obtain more information and design methods to meet those requirements, how to make participatory forest management system, how to help farmers to prepare draft plan for the development of forest management and how to utilize forest management plan to improve the living standards of the farmers, he claimed to know very well. After the training, he was trained to know very well about all those issues. The specific scores that he had given for this training are listed in the Table 4.

Besides, the staff thought that the “introduction to forest management and definition of the roles that farmers and forestry workers had played in the management” part is most helpful to him. Since he has learnt much new knowledge, he also hoped to receive trainings on “how to teach famers to make developing plan for the forest management” in his future management works.

Table 5: Feedback from cooperative members

Training content	Before training	After training
To get to know the content and purpose of participatory forest management	1	5
Self-responsibility in the management of the forest	1	5
To get to know what one should do in the making of participatory forest management plan	1	5
To get to know the content of the outline for the evaluation of the forest management system	1	2
To get to know one's strengths, weaknesses, opportunities and problems in the management of the forest.	1	5
Know how to use the most suited forest management proposal	1	5
To get to know the content of the monitoring system for the participatory forest management.	1	2
Know how to prepare draft plan for the development of the forest management.	1	2

Table 6: Feedback from cooperative non-member

Training content	Before training	After training
To get to know the content and purpose of participatory forest management	1	3
Self-responsibility in the management of the forest	2	4
To get to know what one should do in the making of participatory forest management plan	1	2
To get to know the content of the outline for the evaluation of the forest management system	1	3
To get to know one's strengths, weaknesses, opportunities and problems in the management of the forest.	1	3
Know how to use the most suited forest management proposal	1	3
To get to know the content of the monitoring system for the participatory forest management.	1	3
Know how to prepare draft plan for the development of the forest management.	1	3

Cooperative members: According to the feedback, we can find that before the training, the cooperative members had no idea about the issues below: the purpose and content of participatory forest management; their responsibility in the management; what needs to be during the preparation of the participatory forest management plan; the content of the outline for the evaluation of the forest management system; their strengths, weaknesses, opportunities and problems in the management of forest; how to find the most suited forest management plan; the content of participatory forest management monitoring system; how to prepare draft plan for the development of forest management. After the training, they understood most part of those issues, leaving only several issues to be known. The specific scores that they have given for this training are listed in the Table 5.

Besides, the cooperative members thought that the “how to make SWOT analysis for the making of the forest management plans” part is most helpful to them. And one of them hoped to receive training on bamboo pest control.

Cooperative's non-member: According to the feedback, we can find that, before the training, the non-member has no idea at all about the issues below: the purpose and content of participatory forest management; what needs to do during the preparation of the participatory forest management plan; the content of the outline for the evaluation of the forest management system; his strengths, weaknesses, opportunities and problems in the management of forest; how to find the most suited forest management plan; the content of participatory forest management monitoring system; how to prepare draft plan for the development of forest management. After the training, he has gained some knowledge about those issues. The scores that he had given are listed in Table 6.

Besides, the cooperative member thought that the related information about forest management was most

helpful to him and he hoped that he could receive training on bamboo pest control and some related management skills in the future forest management work.

Making forest management plan is one of the key methods to standardizing management works as to achieve the sustainable producing of forest product. This chapter begins with the concept of forest management plan, describing the formulating process, main structure and content of the forest management plan and then analyzes the necessary knowledge and skills that farmers in Na Kou Xin Sheng bamboo planting special farmer cooperative need in achieving the forest resources management plan and the requirements from forestry and agricultural cooperative.

Practice to draft forest management plan:

The concept, procedure, structure and content of the forest management plan: Forest management plan is not only the foundation for forest management bodies to make annual plan, organizing forest management works and arrange forestry production, but also a key foundation for competent department of forestry management to manage, inspect and supervise the forest management works. The formulation and implementation of forest management plan is a statutory work.

The content of forest management plan: Forest management plan is a long-term planning for the cultivation, conservation and utilization of forest resources and as well as a planning and designing for production procedures and managing utilized measures designed by the forest management bodies in the purposes of scientifically, rationally and orderly managing forests and maximizing forests' ecological, economic and social benefits. It is subjects to the requirements of the national economic and social development, forestry laws, regulations and policies, forest resources and its social, economic and natural conditions.

The procedure of the forest management plan:

The preparation stage for forest management plan:

The preparation work of participatory forest management plan consists of 3 steps: first, the 2 coordinators should ensure, collect and analyze the existing information, which also includes analyzing the interviewing results from key informers. The second step is to inform the government staff, principal of cooperative organization, village official and villagers of the principles and purpose of making the participatory forest management plan. The final step is to build a 6-8 forestry farmer group to formulate forestry and agricultural plan.

Participatory evaluation stage: Assess the status of cooperative's forest management and determine future developmental directions of forest management. This stage includes three steps: assessing framework, evaluating factors that affect the management of forest and anticipating the factors that will change within the next 10-20 years.

Participatory plan-formulating stage: Use SWOT analysis to determine opportunities and risks, determine the strengths and weaknesses of the appropriate forest management system suited for the local situation and explore how to rely on edge to promote the strategic choice. In short, the three steps can be: using strengths, overcoming weaknesses, avoiding risks, seizing opportunities, making forest management plan that is in accordance with the strategic development.

Participatory monitoring stage: Ensure the monitoring on different aspects and processes of participatory forest management (which is supposed to be consistent with the logical framework); supervise activities, outputs and immediate objectives; monitor the influences of outputs and activities; determine the objectives and tasks of monitoring the preparation of participatory forest management plan; decide monitoring indicators.

Feedback and sharing stage: Collect the findings obtained from evaluating, formulating and monitoring stage and then share and consult the findings with others to anticipate the problems that will be tackled in the next year. Combine the comments and suggestions and get ready to share the final report with other villages and finally hand it to the government officials.

The structure and main content of forest management plan: Forest management plan includes five parts: outline, long-term planning, annual work plan, monitoring plan and appendix. The first part introduces the background, status and development of the cooperative's forest management works and SWOT and strategic analysis; the second part focuses on the

long-term planning on the development of forest management; The third part introduces the cooperative's annual work plan; the fourth part focuses on the monitoring program for forest management plans; the fifth part is the appendix.

The required skills and knowledge of the cooperative to meet the formulation of forest management plan:

The description of the existing forest management:

Description of forest management includes: site conditions, changes in ownership, the main forest utilization and management status; the development of local cooperative organizations; the village's social and economic development, etc.

The determine of forest management's objectives:

The managing objectives are based on the description. When setting objectives, the existing bamboo forest resources, forest production potential, the forest management ability and the local's social and economic conditions should be taken into consideration. The aims should include the bamboo resources' developing objectives, the goals for production supply and the expected extent to which forest can achieve its comprehensive benefits.

Training for Bamboo Forest Tending:

Provide forestry farmers with technical training on bamboo forest tending: The training is mainly used for bamboo cultivation stage, bamboo forest cutting stage and bamboo shoots harvesting stage. Bamboo cultivation stage includes splitting mountains, re-cultivation, fertilization and pest control and other technical aspects; bamboo forest cutting technologies include the determine of logging number, logging age, logging season and the ways of logging; bamboo shoots harvesting techniques include the time to harvest bamboo and the time to let youth grow and the ways of harvesting bamboo shoots.

The monitoring of forest management plan:

Define the monitoring objectives and tasks and confirm the monitoring on participatory forest management plan's different aspects and processes. It is required to monitor the activity outputs and immediate targets as well as the influences of outputs and activities.

The cooperative's requirements in joining the participatory forest management plan:

In order to solve the problems existed in the developing process, the cooperative needs many help from the outside, which are demonstrated as the following 4 aspects and are the consensus reached by all the training participants.

Increase funding support: Based on the current discount-interest loans, the qualification for applying discount-interests loans should be extended as well as the using fields of discount-interest loans. The procedures for discount-interest loans should be simplified and the discount rate should be increased. At the same time, the authorities should follow the example of "food direct subsidies" approach, giving direct subsidies to forest management activities, especially giving subsidies for afforestation movements and the transformation work on low-yield forests.

Enhance capacity building: Firstly, key members' management, organization, coordination and planning abilities should be strengthen as to ensure the effective cooperation of the organization; Secondly, key members' technical skills should be strengthen as to ensure the improvement of the organization's operational efficiency; Thirdly, enhance the cooperative organizations' ability of accessing market information as to ensure the high effective operation.

Optimization of the governance structure: Many present cooperatives only have namely activities but not real activities. As a matter of fact, the nature of a cooperative is to enhance forestry farmers' benefit from managing forest production and sales. As long as the cooperative can enhance farmers' incomes and benefits with the help of some existed developing pattern, there is no need to build a large and ineffective governance structure.

CONCLUSION

Through this training, the organizer has not only informed the forestry farmers of forest management plan but also provided training for government staff, key members of the cooperative on the establishing of forest management plan. This training has helped them better understand the purposes, procedures and contents of forest management plan making.

After this training, both Shao Wu Forestry Bureau staff and Na Kou township forestry station staff had gained better and deeper understanding for some issues, which can play a positive role in their making or implementation of forest management plan. These issues are: get to know the participatory forest management and define roles that farmers and forestry workers had played in the management; self-responsibility in the management of forest; how to prepare participatory forest management plan; how to make evaluation outline for forest management system; how to use appropriate analysis outline to evaluate forest management system; ensure more information and design methods to meet those requirements; how to

make trend analysis for forest management; how to make SWOT analysis; how to make strategic decision; how to use logic framework to make developing plan for forest management; how to make participatory monitoring system for forest management; how to make participatory monitoring outline for forest management; how to help farmers to prepare draft plan for the development of forest management and how to utilize developing plan for forest management to improve farmer's standards of living

Both cooperative members and non-members had gained better understanding on some issues which can exert positive influences on the sustainable and healthy forest management, which is in accordance with the forest management plan. Those issues are: the content and purpose of participatory forest management; self-responsibility in the management of the forest; what one should do in the making of participatory forest management plan; the content of the outline for the evaluation of the forest management system; one's strengths, weaknesses, opportunities and problems in the management of the forest; how to use the most suited forest management proposal; the content of the monitoring system for the participatory forest management and how to prepare draft plan for the development of the forest management.

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REFERENCES

- Cheng, H. and S. Zhou, 2009. Review on the supplementary measures of collective ownership of forests reform [J]. *Forest Invent. Plann.*, 10: 35-39.
- Tan, X., Z. Chen, F. Bo and Y. Xu, 2001. Participatory forestry and forestry sustainable development in hunan province [J]. *Forest. Soc.*, 2001(3): 4-6.
- Zheng, Z., 2003. Participatory forestry and ecological development [J]. *Forest. Soc.*, 2003(3): 1-3.
- Zheng, D., B. Huang, Y. Xie, P. Chen and S. Xu, 2009. Research on the manufacturing and management modes of forest resources and assets in fujian province [J]. *J. Jiangxi Agric. Univ., Soc. Sci. Edn.*, 6: 21-25.

End note:

- ¹: Grading can be rated from 1-5 score, "1"stands for don't know at all, "5"stands for knowing very well.