Community forestry is a forestry development and management mode with agricultural community as basis, it is a forest management or forestry production activity directly serving the local farmers or mainly serving them, and organized by local farmers or positively participated by them. As a comprehensive conception and methodology system, community forestry has been implemented so far in a number of developing countries. ID China's official documents such as China Agenda 21, the development of community forestry has been officially put foreword.

Many people wrongly hold that developing community forestry does not need technology. As a matter of fact, community forestry is a renovation to traditional forestry not only in the system (Zuo Ting, 1999) but also in the technology, as it also needs a strong technological support. In practice, paying attention to the technological issues in community forestry has its deep and realistic reasons: in the first place, forest is a basis for the existence and development of rural inhabitants, so strategically people are asked to develop a technology that combining forest with local economy; in the second place, in a number of developing regions, owing to the reasons of economic poverty, increasing requirement, expanding production, improper management and backward technology, the volume or structure of existing forest resources could not meet the needs of local people, this situation has promoted the people to adopt effective measures and develop new technologies to protect forest and boost the utilization rate of forest resources; and lastly, a number of localities have put in many resources (funds, technologies, etc.) and adopted various measures (establishing nature reserves, engineering afforestation, etc.) to protect forest and develop forestry, the existing forestry technical extension, management and serving modes, however, could not fully meet the needs of local people, this situation has promoted people to carry out reform and renovation of forestry technical extension system. On the basis of the author's experience in the practice of Yunnan community forestry the article will emphatically discuss the issues in the technological aspect of community forestry effort.

1. Sustainable utilization of wood and rational distribution of interests

Owing to forest degradation in the global sphere and the important impact of forest on environment, many people reluctantly discuss the utilization of wood resources, afraid to cause forest destruction. However, there are at least two reasons asking us to strengthen the research of wood utilization in the work of community forestry: first, although people has developed a number of wood substitutes, the existing society still needs large volume of timber; second, although forest resources in a number of localities have been reduced but many villages still have very abundant forest resources. In the northern Vietnam, near the bordering mountain area of Yunnan, there is a rare species called Forienia hodginsii, it has only a small amount in the world. To those poor communities, these trees are their resources; they have the right to utilize these trees for their livelihood.

It is difficult not allow people to use wood and to produce timber; the crux is to realize sustainable utilization of wood. The realization of this not only calls for rational logging, but also needs to boost wood utilization rate and utility value; in addition, economic benefits should also be distributed rationally. The specific requirements are as follows:

- Rational logging, selective cutting be increased and clear cutting be reduced, and the destruction of under story vegetation be reduced at the utmost so as to create condition for regeneration;

- Boosting wood utilization rate and value, the focal point is to strengthen original place's wood processing and utilization, enabling local people to obtain more economic benefits and

- Rational distribution of economic benefits, the key point is to determine prices system and tariff policy favorable to forest resource reproduction and reduce the drain of interest of intermediate link. here coming down to a question of timber marketing.
Over the past two decades, China encountered a transformation from planning economy to market economy. In the years of planning economy, timber was a product under unified allocation, its allocated price could not reflect its real price. However, in the market economy, especially under the condition of an unsounded market system, the price of forest resource is frequently distorted, and in an unfair market order, the farmers - the owners of the forest resources often in an unfavorable status: first, the farmer, whether as an individual or as a group, lacks sufficient market information which makes him unable to proceed a fair price negotiation with the timber purchaser, as a result, the primary selling price of timber is too low, and the benefit of the farmer, as a forest owner is injured, for example, at the end of 1980s in Yunnan, there was a case that one cubic meter of timber was worth only one pack of cigarette; second, most of timber production places are in the mountain areas, the transportation cost is relatively high, plus too much intermediate links during the process of timber selling, besides, there are too much kinds of tax (about 10), although the market price is high, the actual gains is little, there are often the cases that unsalable timber are occurred in the original places; and third, most of the timber production places in Yunnan are poor areas, the poor rural households often need funds badly, under this circumstance, they could hardly sell a good price. The logging ban of natural forest explains in a certain degree the fact that the current system of logging index control management is not successful, but it also manifests the urgency of implementing a sustainable timber utilization and management.

2. Measures to alleviate forest pressure

The social pressure born by the forest is mainly represented in people's huge ever increasing demands for timber and forest land resource which if constantly degraded, the community forestry will lose resource basis. Generally speaking, the social demand that forming the greatest pressure to the forest includes two aspects: one is the demand for forest trees, and the other is the demand for forest land. Of these two demands, a part of them is to satisfy external demand, and another part of them is to satisfy local villager's demand. From another point of view, the demand of society to forest resources can be divided into developing demand and existing demand.

Here we will mainly discuss how to alleviate demand pressure of forest by local villagers. Farmers of mountainous area require multi-functioned forest to satisfy their multi-demands. As there is limited transportation and backward economy in Yunnan mountainous areas, on one hand, the local farmers need to acquire necessities (such as timber and fuelwood) to maintain their daily living, on the other hand, when population is increasing, they want to cut more trees and turn forest land to farmland for the purpose of producing more grains. At the same time, with the constant development of economy, farmers' developing demands are increasing also. They hope to sell more wood products to purchase modern productive materials (such as fertilizers, plastic film, and pesticides), and they also hope to exploit more forestland to develop commercial agriculture (such as rubber tree planting and fruit orchard establishment).

We know that forest and timber have multi-service-functions (protecting environment and developing economy), but in the reality, these functions are not displayed in a balanced way. In some places, there are plenty forests, but the people are poor, while in some other places, the economies have been developed, but the natural environments are seriously degraded.

For the sake of solving the issue of imbalance between functions and demands, it needs to create or introduce in rural mountainous areas some suitable modes for the development of agriculture and forestry. In the history of Yunnan, there have emerged some rational production modes. For example, mobile farming, under specific condition, is a well-operated economy - ecosystems, owing to the increasing of the population, the mobile farming also could not be continued. In the following, I would like to discuss a couple of agriculture and forestry modes and economy - ecological development modes. First is the utilization of non-wood forest products, this will be discussed later as a special topic. Second is the development of forest tourism that has been determined by Yunnan government as a pillar industry. Over the past couple of years, it has been developed rapidly. Forest is an important tourist resource in Yunnan. Yunnan's several tourist hot spots, such as Xishuangbanna and Yulong Snow Mountain, are closely connected with forest resource. The greatest advantage of developing forest tourism is to enable forest resource to produce economic value under the prerequisite of not destroying forest resources. From the point of view of community forestry, the greatest challenge of developing forest tourism is how to allow people around the forest to obtain more economic returns and employment opportunities. The third is the development of agro-forestry that is a chief technical means to realize community forestry objectives, play its functional role to serve the community. And the last is the development and utilization of multi-purpose tree species. Yunnan has abundant species resources with plenty multi-purpose species that could meet the demands in the aspects of timber, fuelwood and fodder supply, soil and water conservation and the increasing of income.
3. Utilization of non-wood forest products

People's requirement from the forest includes forest service and forest products. For the latter, in addition to the timber (some people call it primary product), there are a number of non-timber forest products (some people call it forest by products). As a matter of fact, non-timber forest products have surpassed timber products in both function and type. There are two categories of non-wood forest products, one is cash tree crops, another is the products from natural forest, it includes (i) food type, it refers to the edible part of forest plants, such as wild fruit, edible flower and leaves, edible stems, wild vegetables, wild mushrooms, etc.; (ii) oil type, in addition to the species of tung oil tree, tea-oil tree, olive and oil palm, there are still a number of oil plants people have not fully recognized; for example, in the counties on the south bank of Hong River in Yunnan, there are red fruit trees, their oil was used historically for lighting, later it was used for the making of high-grade lubrication oil: and (iii) there are resin, gum, lacquer, essential oil, wild fiber, medicinal herbs and starch plants.

Comprehensively, a well utilization of non-wood forest product resources must pay attention to every link from resource to market. Three major links are as follows:

- **Resource link.** In this link, the amount of resource and how to organize them is an important problem. Economic benefits can be brought only when the amount of resource could meet the needs of economic development.

- **Transportation and marketing.** This is another important link that is how to allow the product to be sold in the market, whether it is purchased by middleman (such as small retailer or cooperative) or sold by the farmer (collective or individual).

- **Market link.** Market is the most important link, it is necessary to aware the final market, the market prices and the market capacity. In addition, storage and packing are also important links, because if the farmers keep abreast of certain preserving technology, they could sell their products at a time of favorable price.

4. Development and utilization of indigenous knowledge

Implementing returning farmland to forest is in a dilemma. If not return, the natural environment will have problem; if return, the villages' living will have problem. In fact, returning farmland to forest is not a harmonized policy; it makes forestry and agriculture to oppose each other. But in the practice, farmers have created a number of operation modes that combine agriculture with forestry. For example, agro-forestry is such a landuse mode, people plant and feed crops, livestock, trees or other perennial woody plants in the same land and obtain multi-benefits. As agro-forestry could meet people's multi-needs - food, fuelwood, fodder, environment security, etc., it has come under people's more and more recognition.

In Yunnan, all nationalities have created a number of composite operation modes. For example, in Jinping County, local farmers plant large amounts of white gourd trees, and plant berries under the trees, this mixed planting solves the problem of ecological protection and provides timber, fuelwood and cash to rural household as well. People of Yun County plant buckwheat in land with white gourd trees, it boosts the soil fertility (as the tree plays a role of nitrogen fixing and its leaves are also good fertilizer) and solve the problem of fuelwood as the tree has a feature of strong sprouting, besides, the yield of buckwheat boosts to about 3,000 kg/ha).

People often think that scientific knowledge is omnipotent, in practice, scientific knowledge has a number of limitations. Indigenous knowledge is grown up in its own soil; it has plenty rational component. More importantly, indigenous knowledge is more easily to be accepted by local people. Therefore, in the process of technical extension, the combination of scientific knowledge with indigenous one should be fully considered.

5. Integrated development of forestry and rural area

The aim of community forestry is to meet the demands of local villagers and community's multi-aspects. But in
practice, the development of forestry often conflict with the production of agriculture and animal husbandry, possibly arousing out of line between forestry and agriculture/animal husbandry, the chief factors are:

- In the aspect of preferential order, for example, the local farmers might consider first of all the production of grain;
- The strain of land resource, a plot could be used for tree planting or for grazing, or for crop growing;
- Insufficiency of labor force, to a family, owing to the constraint of labor resource, it may be willing to concentrate its labor force on a certain aspect which may be others than forestry.
- The lack of forest resource;
- The constraint of investment and capital; and
- Market cause, a place may has a resource base to develop forestry, but the market for forest products might lacking, or the cost of accessing into the market might too high.

Thus, during the design and implementation of community forestry, forestry should only be considered in the background of agriculture development, coordination among agriculture, forestry and animal husbandry, between economy and environment and between local people's existence and development should be fully considered. We must understand that community forestry should be a part of comprehensive development.

From the point of view of forestry, the coordinations between forestry and agriculture/animal husbandry, between economic development and natural environment should be fully considered. We cannot talk about forestry development in an isolate way, especially the development of ecological forestry. It is difficult to develop forestry in poor area, as it is closely connected with economic, cultural and educational levels. When people have not solved the problem of getting enough food and clothing, it is very difficult to ask them to consider the problem of sustainable development.

An integrated development with forestry as the center includes mainly the following:

- Promoting a mutual development of forestry and agriculture, such as the production of cash tree crops, oil plants and feedstuff, the extension of agro-forestry and the boosting of agricultural output through manure collecting;
- Promoting a mutual development of forestry and animal husbandry, such as the development of under story feed resources, developing beekeeping industry to replace breeding industry, rotation -grazing and grassland with sparse trees;
- Promoting a mutual development of forestry and rural energy development, such as considering the development of substituting energy biological energy, solar energy, small hydro-power, mineral energy, etc.) and energy-saving measures (popularizing improved oven and feeding raw feedstuff); and
- Promoting a mutual development of forestry and rural environmental development, considering unified planning, of hill, water, forest, farmland and road, farmland capital construction biological measures for soil, water and fertility conservation), the improvement of living and sanitation conditions beautifying and greening homestead).

6. Research, training and extension - provision of technology and service

In the management, although community forestry emphasizes the fact that farmers are the foundation, but a good development of community forestry could not independent of external supports, especially that of external technology and service. Whether it is the management of a patch of forest, or the afforestation on a patch of wasteland, it is necessary to have multi-aspects of technology and service. In a number of rural areas, we have discovered that although local rural households or rural collective have many forests, but they cannot obtain very high economic benefits from them, one of the important reasons is the fact that the growth of forest trees is not rational and the output benefits are too low.
To develop forestry in rural areas requires a series of technical services, such as tree breeding technology, tending, and management technology, pest and disease control technology and gathering and processing technology. This situation has been occurring in Zhaotong prefecture of northeastern Yunnan, which is situated in the lower reach of Jinsha River and is one of the afforestation areas for the project of shelterbelt forest in the middle and upper reaches of Yanotze River. Some dense young forests have been grown up in a number of areas owing to the afforestation, generally, intermediate felling should be taken place in time for these forests, but the villagers knew nothing about the standard of intermediate felling and forestry units had not introduced this technology, the villagers feared that if the felling was not done well, deforestation would be formed. As a result, the trees were grown densely and slowly, and the farmers could not obtain even small diametered timber. Another example is in Jinping and other counties of Honghe Prefecture, the established Chinese fir plantations are densely grown, as the farmers do not know how to carry out thinning.

The provision of technology and service does not as simple as that of merchandise. When you provide a technology to farmers, they could not control it, do you still think you have already provided the technology to them? The provision system of technology includes the components of R&D and extension. It is the technical extension system that has close connection with farmers; training, is one of the extension methods often used. In rural area development, the farmers training often combines with the extension of technologies, the training and extension is an important content of rural economic development. The provision of technology could adopt some intensive modes, and the provision of service is a frequent job, it relies on the establishment of service institutions.

In addition to the training and extension with the professional as key staff, the community forestry should pay special attention to the summing-up of knowledge transmitting between the farmers, exploring its diffusing system and the development of indigenous knowledge. In fact, most of the farmers are receiving the knowledge from the older generation or other farmers; the professional training target can only be the farmer of “setter”.