



Deutscher Tropentag, October 8-10, 2003 in Göttingen  
International Research on Food Security, Natural Resource Management and  
Rural Development

Technological and Institutional Innovations for Sustainable Rural  
Development

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**Forest Plantation Management between Centralized and Participatory Planning — A Case Study of East Pegu Yoma Project (EPP), Myanmar**

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**Abstract**

*Myanmar is one of the top ten teak planting countries. Although the plantations cannot replace all functions of natural forests, they are necessary for combating deforestation and providing increased demand of basic needs and individual wood, especially in tropical developing countries. The overall objective of this study is to contribute better strategies for plantation management in Myanmar. The study was carried out in a large-scale teak (*Tectona grandis*) plantation project on degraded natural forest area in Myanmar. Personal interviews were done with three major interest groups of EPP: the planner, the field level staff and the effected local people. A small-scale one-shot inventory was also conducted to examine the impacts of forest dwellers on nearby plantations. Research findings indicate that the planning process of EPP was carried out by a group of professionals without discussion with other interest groups. Young foresters who were assigned by the Forest department implemented the project. Local people were involved in the project only as temporary labour. Project administration was a top-down bureaucratic system and there were no transparent relations and interaction between these actors. As a consequence, a considerable amount of negative human impacts were observed in EPP plantations and the project could not achieve its expectations. Although there are some limitations and constraints for the participatory approach in Myanmar, it is important to start from a point that is suitable for current political and social economic conditions. Perspectives of all actors have to be investigated and social aspects must be included in future plantation management. Local communities must have the opportunity to participate in planning, management and benefit sharing activities of plantations.*

**Introduction**

Myanmar is one of the top ten teak planting countries. Although the plantations cannot replace all functions of natural forests, they are necessary for combating deforestation and providing increased demand of basic needs and individual wood, especially in tropical developing countries. Due to the increased annual rate of forest depletion, 1.6% in 1990 and the increased population rate, 2.02% in 1999, Myanmar forest department has been establishing considerable amount of plantations to encounter increasing demand for forest products. Annual plantation target of Myanmar under Ministry of Forestry (MOF) is about 40,000 hectares. Myanmar ranks 9 in the list of top ten tropical countries in plantation establishment. Most of these plantations are being established by traditional Taungya system under centralized planning and implementation process. East Pegu Yoma Project (EPP), the underlying case study of this work, is one of the most common examples of plantation establishment in Myanmar. The

origin is a large-scale teak (*Tectona grandis*) plantation project, which was carried out from 1979-80 to 1984-85 on degraded natural forest area by traditional Taungya system.

Well-trained and experienced foresters under bureaucratic and top-down approach have carried out usually planning and implementation. After the establishment, government owns almost all the plantations. Under Taungya system local shifting cultivators are considered as temporary labour and they do not have chance to participate in the planning and management process of plantations. They also do not have land-use rights and benefit sharing opportunities from plantations. Moreover, forest department has failed to adapt the local people's desire and they even do not contact with the people to see what they really need.

Participatory plantation management has been initiated in Myanmar since 1996. But the system needs a true democratic society. All the steps of management process such as decision-making, problem identification, data collection, analysis, alternative formulation and final choice must be opened to participation. The top-down political system, political isolation and unclear government policy still exist as the greatest barriers for practising citizen participation in forest management. On the other hand government's funds for silvicultural operations, protection and long-term management of plantations are inadequate. As a consequence, plantations in inaccessible sites are usually congested, overstocked and put very little or no increment. In contrast, the plantations in accessible areas are normally under-stocked because of illicit felling by local villagers (Ministry of Forestry, 1999).

Another important barrier has been concerned with bureaucratic professional foresters who have traditionally held the power on forest resource management. As well trained and experienced professionals they have been believing that accepting the public as management partners means reducing their power and professional dignity. Their unreasonable arguments are that "rural people do not want to participate in forest management" and "rural people do not know the value of environmental protection" (Enters et al., 2000). These are the real problems facing in practising participatory forest management in rural areas of the country. It may take time to change the mentality and behaviour of those people to be in line with the new system.

### Objectives of the paper

This study is an impact analysis of EPP planning and management process. The main purpose is to recommend better strategies for future plantation management in Myanmar. The specific objectives are: 1) Assessing the planning process of East Pegu Yoma teak plantation project (EPP) in Myanmar, 2) Examining the impacts of planning procedures on implementation and maintenance of plantation, and 3) Contributing better strategies for future planning, implementation and management of forest plantations.

### Theoretical framework

In Myanmar, participatory forest management approach has already been initiated for two main purposes. The first purpose is to change the role of forest dwellers from forest destructive groups to forest protective groups. The second reason is to get win-win situation for both sides (local people and authority) in resource management. EPP was a large-scale teak plantation project carried out from 1979-80 to 1984-85. The project was co-financed by the Myanmar Forest Department and World Bank loan. Teak plantations were established in block by block in the selected degraded natural forest areas by Taungya system. The area of each block is ranging from 21- 416 ha. The distance between the blocks is irregular and it depends on topography, accessibility and the extent of degradation. Totally 16,914 ha of teak plantations were established during the project (1979-80 to 1984-85) shown in table 1.

**Table 1: Annual establishment of teak plantations during EPP**

Year	1979/80	1980/81	1981/82	1982/83	1983/84	1984/85	Total
Establishment (ha)	708	1725	2769	3829	3963	3920	16914

Source: Ministry of Forestry, Forest Department, 1989

The project also established 2,879 ha of non-teak hard wood plantations on a research level to establish nursery technique for those species and to study development of those species. The project employed 384 Government staffs in 18 sub plantation groups. Among them 64 professional foresters participated as field level staff. The project organised 1720 households of land-less families as basic Taungya workers. The project provided 14 primary school teachers, 4 nurses, free access of forest products for household needs and advance food mainly rice during the project period (Forest Department, 1989). The main expectations of the project were: to earn more foreign exchange by producing more teak and hardwood; to remove about 20,000 ha of shifting cultivation land from reserved forests; to distribute more timber for local use; to develop plantation techniques for fast growing species so as to provide fuel wood, charcoal and local use timber in short-term; to have more teak dominant forests in the future and to develop wood base industry in the future. Economically, the project expected to achieve benefit cost ratio 8.4 under the eight percent discount rate after 50 years of plantation establishment.

As the local shifting cultivators are not part of the managing authority for plantations, villagers' oppositions to restrictions and disrespect of forest law have increased by the time. As a result, local people hardly try to protect the plantations and even destroy the plantations when the forest management becomes weak. For example during the second World War (1942-1945) and during the 1988 pro-democracy movement, many teak plantations and other plantations of valuable species were destroyed by villagers who had involved in establishment of those plantations. There has still been no consensus between local communities and government authorities for mutual benefits from plantations. Moreover, Myanmar has been under centralized government since King's period. People have been long time isolated from international community and are used to be under top-down administration. They are familiar with following of orders and instructions and the people under 50 have no experience with democratic society. Myanmar citizens' especially rural people even don't know how to involve and participate in these processes properly. They are afraid of challenges and responsibilities. They are still waiting for some orders and instructions from authorities to take part or to do something ahead (discussion with a retired director, forest department).

Nowadays, a number of local and international Non-Governmental Organizations (NGOs) has been actively participating in community forestry activities in co-operation with Forest Department and UN organisations. Recently their activities are focusing in seriously degraded and ecologically vulnerable areas such as mangrove, watershed and dry-zone regions. So far some 1,000 ha of community owned forest plantations with their owned land title have been established in the country with the assistance of NGOs and UN organizations (UNDP, 1998). The community-owned forest plantations established

**Table 2: Community-owned forest plantations established from 1995 until 2000**

State/ Division	Area (ha)	Number of user groups
Kayin	102	16
Chin	64	75
Magwe	1,743	2,443
Shan	1,483	817
Ayeyawady	4,449	3,213
Mandalay	2,157	8,689
Sagaing	2,38	1,061
Country total	10,236	16,314

Source: Ministry of Forestry, Forest Department, Planning and Statistics Division, Myanmar, 2000

In comparison with the government target of around 40,000 hectare per year, the amount of community plantation is very low. But the experiences gained from these initial approaches are expected to provide a basis in establishing a nation wide participatory forestry network capable of working with people.

## Methods and Data Sources

This study examines the past planning procedures of the plantation project and its impacts on project's outcomes. The study was done in East Pegu Yoma Project area in Myanmar. The fieldwork was mainly based on exploratory social survey research method. The aim is to analyse the actual social condition of the past project, particularly the interaction between government staff (outsiders) and local communities (insiders) during and after the project period. Research method includes questionnaire survey and personal interviews with three different interested groups of EPP projects: the planners, the field level staff and the local people effected by the project. The researcher conducted personal interviews with 80 local people from 80 households within three small villages that are located in EPP project areas, such as Yaungni village in Bago district, Seinye village in Taungoo district and Padaunga village in Yemathin district. A total of 17 field staffs who have been involved in the teak plantation establishment in the area of surveyed villages during the project period were selected. The personal interviews have been done with four planners (former EPP project director, two retired directors and one director from the Forest Department who are present membership of the Planning team). In addition, the researcher made in depth personal interviews concerning teak plantation establishment in Myanmar and future trends with four subject matter specialists from the Forest Department and the Institute of Forestry.

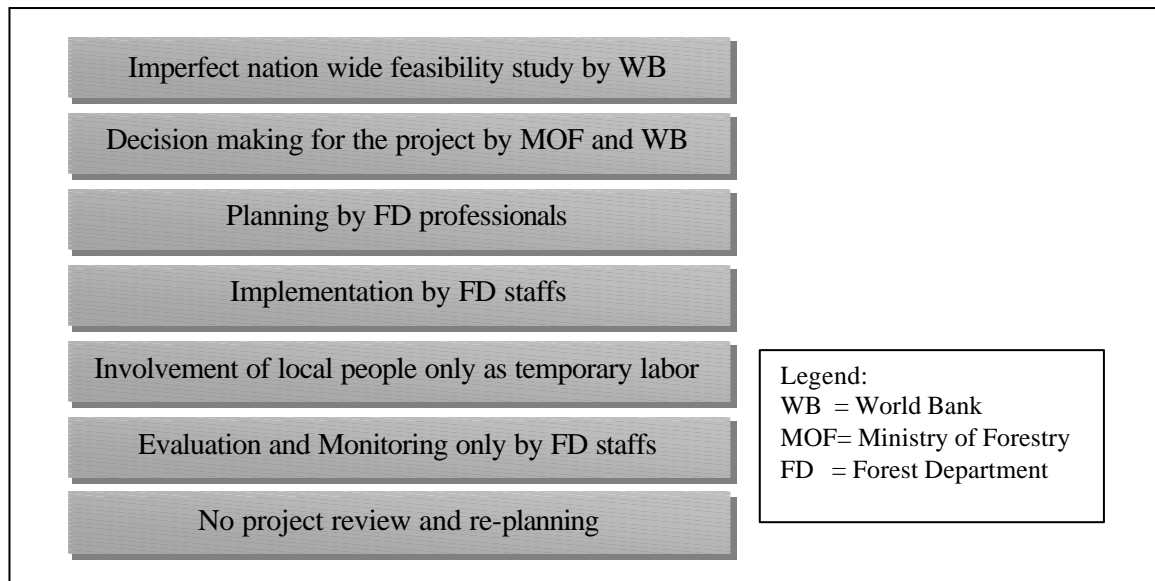
## Results and Conclusion

The planning process of the project was carried out by a group of professionals at head-office without discussion and negotiation with local people and field staffs. The relationship among the actors of the project (planners, field staffs and local people) was top-down. Moreover most of the field staff and local people who were involved in the project did not understand well about the aims and objectives of the project. Objectives and output of the project were predetermined and implementation procedures were well structured. Annual and monthly work plans were prepared in head office without detailed discussion with local people and implementation agencies. Major problems for the local shifting cultivators who were involved in the project as daily labour were accidents, disease and insufficient wages. They did not have land use right and right to get share from plantation products. They also did not have chance to discuss openly with officials to resolve their problems.

For the field staff, major problems in the field were insufficient funding, insufficient labour and too much target area to be implemented. Most of the field staffs were freshly graduated young foresters who were assigned by forest department. They were not perceived as responsible actors but rather as executors of the decision taken "at the top". About 60% of field staff who were questioned answered that the project plan was not flexible enough to overcome the problems faced in implementation phase. Their attitude was just to finish the duty in time according to prescribed plan without caring too much about the final results of the plantations.

The Forest department did overall control and assessment of project achievements. Implementation staff was also serving as monitoring staff and there was no independent monitoring and evaluation unit. As a consequence, forest department routine monitoring reports rarely reflected the reality. More than 75% of respondents said that departmental monitoring reports were regularly sent to the Ministry but no effective feedback. Monitoring authorities did not make random sampling survey, group meeting, field observations and informal interviews and there was no participatory monitoring and self-evaluation during the project. They did not make re-examination of the project objectives at different stages and there was no re-planning as necessary.

After reviewing the perspectives of three groups of actors (local people, field staff and planner), the planning, decision making, implementation and monitoring and evaluation process of the EPP project can be summarized as shown in the following flow chart (see figure 1).



**Figure 1: Flow chart for EPP planning and implementation process**

Source: Author's presentation

The World Bank, the main financial supporter of the EPP project did only an initial technical feasibility study for the project. But the technical feasibility study had been made very generally for nation wide plantation establishments in degraded forest areas and not specifically for the project area. There had been no social and environmental feasibility studies. Then the Ministry of Forestry and World Bank made decision for EPP project before any planning process.

Planning process followed the decision and was done by a numbers of forestry professionals assigned by Ministry. The plan was drawn in forest department head quarter based on previous experiences of teak plantation establishment by Taungya system. It was finished within the period of 6 to 12 months without discussion with other actors. After Ministry and the World Bank had approved the plan, forest department did field implementation. Many freshly forestry graduates who wanted to join the department were assigned as field staff of the project. Most of them even did not properly understand the aims and objectives of the project. The working relationship and interaction between the planner and the field staff was very hierarchical. Landless local people who formerly were traditional shifting cultivators in the project area participated as temporary labour under the control of field staffs. The project provided some short-term benefits for their living but neglect their long-term settlements and development.

Monitoring and evaluation of project's achievements had been done by Forest Department routine assessments. Apparently those assessments rarely reflected the reality as the implementation staffs were serving as monitoring and evaluation staffs. There was no independent monitoring and evaluation unit for the project. Departmental procedures for monitoring and evaluation restricted the consultation with stakeholders and interest groups. It was conducted in non-transparent way. As usual the staffs had sent their assessment reports to the Ministry every year and there had been no critical reviews and effective feedback on it. Finally there had been no re-examination and re-planning of the project plan according to the lessons learned by implementation phase.

Major challenge to be solved today is how to achieve significant progress towards the sustainability of plantations responding the rising environmental, social and economic issues for all interest groups. Among the critics regarding the establishment of plantations in Myanmar, the following issues are the top listed.

- The existing plantations do not receive proper treatments for protection and maintenance in the course of their establishment and development phases.
- First year survival percentages of plantation become reduced within 5 to 10 years of planting due to insufficient control.

- Plantations are subjected to illicit cutting because of lack of people participation in plantation management.
- It is time to analyse the extent of long-term success of the plantations that have been established.
- The most required activities that are needed for better plantations management should be formulated.

### **Educational Importance**

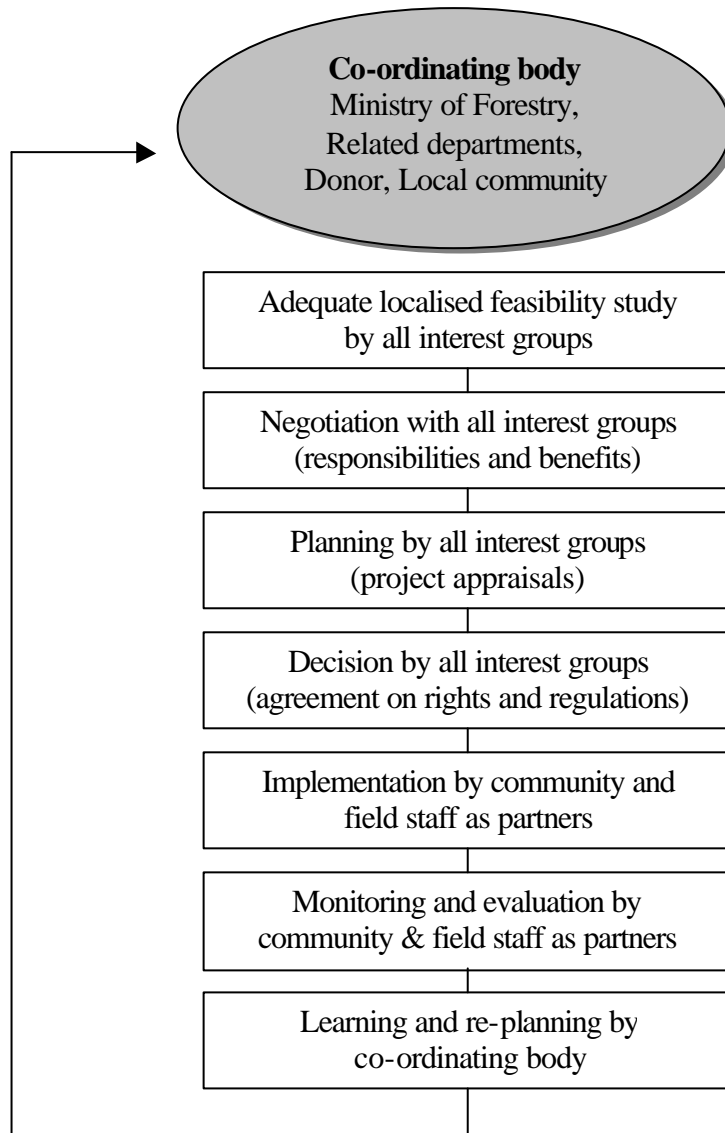
Based on results of the study, the following points are suggested and recommended for the development of better plantation management strategies in Myanmar.

- A new plantation management approach should be set up in Myanmar based on participatory concept by co-operating between government and local people. All the government plantation targets (about 40,000 hectare per year) should be implemented with the new approach as soon as possible.
- Government plantation projects should focus to get profits for both local people and the state. It is essential to create win-win situation for both sides. Forests cannot be saved if people cannot feed themselves. Therefore, the main objective of future plantation projects should be to fulfil the basic needs of rural poor rather than to earn foreign exchange for “national development”.
- Local people (forest dependants and dwellers), related government agencies, NGOs and forest department should be equally and actively involved in preparing district forest working plans. This will bring more detailed information and will result more realistic and transparent forest working plans for every forest district.
- A nation wide participatory forestry extension program should be launched for capacity building of local communities. It is important to inform local people about the changing trend of forest management and needs of their active participation in the new approach. More important task of this extension service should be to train and educate the local communities how to organise and perform by themselves in natural resource management, efficiently and effectively.
- Training and education for forest department staff to change their moral and attitudes from traditional bureaucratic foresters to social foresters is an immediate need. Citizens’ participation and social forestry courses should be introduced both in academic and in-service training.
- Field staff for plantations projects should be selected based on their willingness instead of mandatory orders. They should be given chance to participate in planning and decision making processes of the projects. They should also be provided enough facilities and incentives to perform as active negotiators and mediators in participatory plantation programs.
- In every plantation programme, two way learning process and participatory on-going evaluation and monitoring process must be introduced. This attempt may lead to the transparent assessment of the effectiveness and impacts of plantation on local community. Based on results of these assessments project review and re-planning should be done to achieve better results from plantation projects.

Since Myanmar has still been in the initial stage of participatory plantation management approach, more researches are required to find out better strategies and to overcome problems in implication of new approach. Further researches should be emphasised on participatory extension methods to look for the optimum way to initiate a process of capacity building among local communities. Detailed in-depth researches to examine the impacts of plantation projects including environmental and ecological impacts on of local population are of highly necessary. It may be very time consuming but with high variety of data obtained a wide range of hypotheses can be tasted and generalised.

Researches on technical reasons for failure of plantations are also necessary to carry out a comparative analysis with that of social economic reasons. More researches on conflict management and resolution are also need to cope with emerging conflicts in implementing participatory approach. Detailed social studies and researches to examine the factors that can influence the participatory approach in Myanmar such as culture, customs and religion are also required to give broader and deeper information for successful implementation.

To adapt and harmonise with the real situations of Myanmar, it is required to change step by step. Some control measures are necessary at the beginning phases for effective use of time and resources. Partnership level participation is the most suitable in Myanmar. With this in mind, an appropriate model for planning, implementation, monitoring and evaluation process for future plantation management in Myanmar is proposed in the following figure 2.



**Figure 2: Proposed model for planning and implementation process for the future plantation management in Myanmar**

First of all a co-ordinating body has to be formed from project level up to the national level to implement all the plantation targets of the country by participatory approach. Representatives of all interest groups, local community, donor, related government agencies and forest department must be actively and equally participate in the process.

Planning process must be started from local level. Technical as well as social and environmental feasibility study should be done for each project by all interest groups. Care should be taken not to take too long time for this step. At every level time control for effective use of time and resources should be taken by members of the co-ordinating body themselves through negotiation. All the interest groups must be invited for discussion and negotiation. Rights and responsibilities for both local community and forest

department should be clearly identified in this step. Guideline and time control are necessary if there are numerous forest users with different needs and opposing each other.

All interest groups including local communities and implementing agencies must do project planning. Different project appraisals should be collected from different actors to make final decision more flexible, realistic and practical. Time control is required in this step to have the best plan during the reasonable period. All parties should make final decision in fair way. Rights for the local community such as land use right; land lease and long term benefits from plantations must be documented. At the same time, responsibilities and regulations to be followed by community should also be clearly stated in final decision. Local people must involve both as implementers and beneficiaries.

Local people and forest department staffs as co-workers or partners must do project implementation. Necessary supports (both technical and financial) should be given to this implementation group by other actors of the co-ordinating body (Ministry of Forestry, donor and related government agencies). Control for effective use of all resources according to the regulation is also required during implementation. Participatory monitoring and evaluation of project activities and achievements should also be carried out jointly by local people and forest department staffs. Based on monitoring and evaluation results, learning, reviewing the project and re-planning should be carried out by all interest groups for the improvement of future plantation projects.

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