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**INTERNATIONAL TROPICAL TIMBER ORGANIZATION
(ITTO)**

COMPLETION REPORT

**UPGRADING PRODUCTION EFFICIENCY IN FURNITURE
MANUFACTURING**

PPD.7/96 Rev.1(I)

Prepared by

MYANMA TIMBER ENTERPRISE

Project Central Coordinating Committee

(September 1997)

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PROJECT COMPLETION REPORT

A: Project Identification:

- (a) Title : UPGRADING PRODUCTION EFFICIENCY IN FURNITURE MANUFACTURING
- (b) Serial No : Pre-project PPD-7/96 Rev.1(I).
- (c) Executing Agency : Myanma Timber Enterprise, Ministry of Forestry.
- (d) Host Government : Government of Myanmar.
- (e) Starting Date : 1st February 1997.
- (f) Actual Duration(months): (8) months. (Including writing of reports)
- (g) Actual Project Cost : US\$ 57497.50 plus Myanmar Kyats 308800.

PART I.

EXECUTIVE SUMMARY

1. BACKGROUND INFORMATION ABOUT THE PROJECT

Myanmar, a tropical country, is rich in natural resources, especially timber. Out of which the most valuable and popularly known is Teak. It is estimated that Myanmar has sufficient raw material resources with its 32.4 million hectares of woodland and forest cover.

Under the guidance of the Ministry of Forestry and the strict supervision of the Forest Department, Myanma Timber Enterprise, a state economic organisation under the Ministry of Forestry, harvests wood within the annual allowable cut of 409,062 cubic metres for teak and 3,236,071 cubic metres for non-teak tropical hardwoods.

Myanma Timber Enterprise also processes timber thus extracted, for domestic use and export. Myanma Timber Enterprise exports logs, rough sawn timber; and processed wood. The private sector, including joint ventures and the co-operatives, also exports value added products. The Ministry of Forestry, supplies raw materials to the private sector for further processing.

Myanma Timber Enterprise has more than (90) sawmills, (5) plywood mills, and (5) furniture factories. The processed wood products are mainly, plywood, veneer, moulding, finger jointed strips and boards, furniture, doors & windows, parquet and PTG floorings. The export of processed wood from the Myanma Timber Enterprise accounts for less than 5% of the annual export earnings.

As export of raw materials such as logs and roughly sawn lumber accounts for the majority of the total export earnings, production and export of more value-added products becomes the top priority of the Myanma Timber Enterprise.

To produce more value added-products, it is necessary to promote the wood based industries products like plywood, veneer, and furniture production both in quality and volume.

With an abundance of wood including teak and availability of low-cost labour, Myanmar has a competitive edge in making an impact in the international furniture market.

But it is lacking in capital, modern production technology, a trained labour force and exposure to international furniture markets.

With the help of modern production technology including machines and spares, skilled labour force and exposure to international markets, better chances will be available to Myanmar in the production and export of furniture made not only with teak, which is currently the major raw material, but also with other lesser-known species.

To upgrade furniture production in line with contemporary international market atmosphere, one should have raw material resources, human resources, appropriate production technology, development of market and capital investment.

The GOM is inviting foreign investments and many are being made in many different sectors including wood-based-processing.

With these justifications, a project was submitted to the International Tropical Timber Organization (ITTO) with the title of "Upgrading Production Efficiency in Furniture Manufacturing".

The Project was proposed with a figure of US\$ 699,000 as ITTO contribution, and Myanmar Kyats 4,065,800/- from Government of Myanmar (GOM).

But the project proposal was downgraded by the ITTO, with a suggestion to re-submit a pre-project proposal which will define an overall strategy and an action plan for implementation of up-grading productivity in furniture manufacturing complementing with international market information and know-how. On this suggestion, a pre-project was proposed to the ITTO under the title of "Pre-project Proposal for up-grading efficiency in furniture manufacturing" in April 1996. It was proposed for US\$ 525,000 as ITTO contribution and Myanmar Kyats 308,800/- as GOM contribution.

This pre-project was approved at the 20th session of the ITTO council meeting held on 2nd July 1996, as Pre-project PPD-7/96 Rev 1(I), with the title of "Upgrading Production Efficiency in Furniture Manufacturing". For the Pre-project, ITTO made available to GOM a sum not exceeding US\$ 57,497.50 with GOM contributing in cash for pre-project personnel and expenditure for miscellaneous items, equivalent to Kyats 308,800/- .

The agreement for the implementation of the pre-project PPD-7/96 Rev. 1(I), "Upgrading Production Efficiency in Furniture Manufacturing" was signed between the ITTO and Myanma Timber Enterprise, Ministry of Forestry, Government of the Union of Myanmar on 8th and 20th of November 1996.

The specific objective of this Pre-project is to formulate a comprehensive

Project proposal which would define the strategy and action plan for improving productivity in tropical timber processing.

This pre-project was planned to complete within a six month duration, starting from February 1996.

This pre-project planned to use US\$ 57497.50 made available by the ITTO and Myanmar Kyats 308,800/- of GOM contribution.

This pre-project relates to the furniture industry of the Myanmar Timber Enterprise of the Ministry of Forestry, which executed the Pre-project. This industry is at a mechanised craft level. It is the main supplier to the domestic market. Government offices, hospitals and schools are the main customers. The private sector is a motley of small furniture makers producing mainly hand made furniture. A few modern but small industries exist, but they have just started and have yet to make a serious impact in the national economy.

2 PROJECT ACHIEVEMENTS

(A) OUTPUTS ACHIEVED

The output of the pre-project is to engage two consultants to analyse the existing production procedures and system and marketing of furniture products. The consultants have made their reports accordingly.

A group of (8) people from the furniture industry of the Myanmar Timber Enterprise made a survey tour of Malaysia and Thailand. Their report has been submitted.

A project proposal has been prepared by the executing agency with recommendations made by the two consultants. The project proposal will be improved upon and submitted to the ITTO by December 1997.

(B) SPECIFIC OBJECTIVES ACHIEVED

The specific objective of the pre-project is to define an overall strategy and an action plan for improving efficiency in furniture manufacturing. The output from this pre-project is a project proposal made from the analyses of the consultants, which includes such strategies and plans.

(C) CONTRIBUTION TO THE ACHIEVEMENT OF THE DEVELOPMENT OBJECTIVE

Under the work plan of the pre-project, two consultants visited the furniture factories under Myanmar Timber Enterprise and put up their analyses and reports on production and marketing of furniture.

Eight persons from the Myanmar Timber Enterprise completed a nineteen day survey tour to Malaysia and Thailand.

The analyses and reports made by consultants and the survey tour report will be of great help to prepare the Project proposal and also in the production of furniture in future.

The experience and knowledge gained from the analyses of the consultants and from the survey tour have broadened the perspective of the personnel of the Myanmar Timber Enterprise in furniture production and marketing.

Recommendations made by the consultants were implemented as far as practicable. Exposure to the consultants and the production and marketing methods of Malaysia and Thailand enhanced the knowledge of the personnel from the furniture industry of Myanmar Timber Enterprise.

3. TARGET BENEFICIARIES INVOLVEMENT

Myanma Timber Enterprise is the executing agency of the pre-project. The furniture industry of the Myanma Timber Enterprise, as the main beneficiary was directly involved in the practical implementation of the pre-project, and had had the chance to study furniture production and market situation in Malaysia and Thailand.

Experience gained from this survey tour and recommendations of the consultants will be helpful in future furniture production of the Myanma Timber Enterprise.

Myanma Timber Enterprise will prepare and submit the project proposal as a follow up after completion of the pre-project.

After completion of the project, furniture manufacturers from the state sector and the private sector will benefit from the training programmes for skilled workers, and dissemination of information on markets and technology.

4. LESSONS LEARNED

(A) DEVELOPMENT LESSONS.

This pre-project was designed under two major activities.

The first one is hiring of consultants to analyse the existing production system, production procedure, production, quality control system and product quality, marketing, of present exporting items and prospect of production and marketing of lesser-known-timber species.

The second one is the survey tour of personnel from the Myanma Timber Enterprise to Malaysia and Thailand to study the marketing and production methods. Both the activities have been successfully concluded.

The aim of the pre-project is to submit a comprehensive project proposal defining the strategy and action plan for implementation of upgrading efficiency in furniture production. As such, there were no changes yet in intersectoral links that affected the pre-project's success.

Since only the Myanmar Timber Enterprise has a cohesive unit of furniture factories for the time being, a centralised effort could be made in the project implementation, and no additional arrangement was perceived that could have improved the co-operation.

The analyses & reports made by the consultants, discussions with them and their recommendations to improve production and marketing under existing circumstances will most affect project sustainability after completion.

(B) OPERATIONAL LESSONS

Project organisation and management of the pre-project is, considering the short duration of the pre-project, is sound. A completely independent project task force, without any extra-curricular duties other than that of implementing the project would be more efficient for projects of longer duration. It was also advised by the production consultant, Mr A. V. Bassili, to have two counterparts each for the consultants to have a continuity and eliminate gaps and lapses in execution of the project. This advice will be taken into consideration in organising future projects.

In preparing project documentation, the executing agency gained enormous experience under the monitoring missions made by the ITTO. This pre-project is the first ever ITTO project and the knowledge gained was vast. This could be advantageous in future for preparing documents that meet ITTO criteria.

Project Manager Dr. Hwan-Ok Ma visited Myanmar in April and again in September 1997 for monitoring the pre-project. He met with officials concerning the pre-project and visited the furniture factories both from the state and the private sectors. He gave many invaluable suggestions and pointed out deviations from the objectives of the pre-project. This ensured the success of the pre-project.

This is the very first pre-project for Myanmar, and there had been many limitations and constraints in the planning such as hiring of consultants, their fees; survey tour programs; understanding the rules and regulations of the ITTO, etc. Also, there were some constraints in planning the budget. These could be useful lessons for future projects.

A Project Steering Committee, chaired by the Deputy Minister of Forestry, comprising members from various departments of the Ministry of Forestry, was formed to guide this pre-project. Meetings of the project steering committee were held accordingly. A Project Central Co-ordination Committee chaired by the General Manager of the Export Marketing and Milling Department of the Myanmar Timber Enterprise, took the responsibility of the direct management of the pre-project such as engaging consultants, defining the duties of the task force for implementing the objectives, budgetary controls, and liaison with various departments involved in the pre-project.

A project task force from the Furniture Factory Complex of the Myanmar Timber Enterprise, was assigned to perform the day to day work, such as managing the pre-project staff; acting as counterparts and co-ordinators for the consultants, and implementing the operational advice given by them.

For this pre-project there were factors that should have foreseen such as the income-tax matter of the consultants. We also could have foreseen that the ITTO as an international organisation would not take any responsibility for paying the tax. This was due to ignorance and

lack of experience with projects funded by international organisations. This was resolved with the help of the Ministry of Forestry.

Another factor is the question of the survey tour. After discussions with the production consultant, he noted there was an abundance of large rattan poles in Myanmar that is no longer available in many producer countries. His suggestion was to visit the Philippines where the rattan furniture industry was very developed. Since the trip to the Philippines was not included in the pre-project activity, the pre-project personnel lost one good opportunity to learn and improve the rattan furniture industry in Myanmar.

There were no external factors that could not have been foreseen affecting the smooth running of the project.

5. RECOMMENDATIONS

The pre-project was lucky to be able to engage two qualified and competent consultants who met the requirements in performing the assignment. It should be mentioned here that without the help of the ITTO we would not be able to engage them. The main reason is that we do not have a list of consultants as there is a constraint in budget and time to hire them by advertising in the international newspapers. We had to seek ITTO's assistance to provide us with some names, and caused some delay in the implementation of the pre-project.

It is strongly recommended that, unless otherwise detrimental to the objectives of the ITTO, a data bank for consultants should be kept at the ITTO headquarters, and supply the names to the executing agencies on request. The executing agencies can then have a better option to choose who fits best.

Survey tour to Malaysia was successful due to the arrangements and help of the marketing consultant Mr. Ser Cheng Sam from

Kuala Lumpur. Without his efforts the tour group would not have the opportunity to meet with personnel from the Malaysian Timber Council, Malaysian Timber Industry Board, Forest Research Institute of Malaysia and visit many furniture factories and showrooms. The tour group also benefited immensely from the daily recapitulations made with the consultant, on what they have seen during the Malaysia survey tour.

We recommend that the ITTO make use of its influence in member countries to assist in making study visits.

And it will be more productive if the consultants can accompany the survey tour together so that they can guide the group on what to look for and to recapitulate on what they have seen during the day.

PART II

MAIN TEXT

1. PROJECT RESULTS

As the specific objective of this pre-project is to define an overall strategy and action plan for up-grading production efficiency in furniture manufacture, a project proposal defining the strategy and action plans in that direction was prepared by the task force with the help of the consultants. This objective of the project proposal is to train the workers and supervisory staff for more efficiency and productivity. There was no such plan prior to the commencement of the pre-project.

There were many recommendations made by the consultants on production and marketing that we can immediately take action. These areas cover the marketing of items including those made from lesser known species, standardisation, inventory control, cross-cutting for minimal waste, layouts in certain factories to enhance production.

New ideas and information received as a result of the survey tour would improve production techniques on implementation. Understanding of modern furniture production and marketing methods practised in Malaysia and Thailand will help the factories to achieve the objectives of the pre-project.

The Specific Objective of the Pre-Project was fully achieved. On the completion of the pre-project, it became obvious that the following actions have to be taken:

- (a) to establish a training centre for furniture manufacturing (or) wood processing.
- (b) to introduce appropriate new technology.
- (c) to establish a market and information centre for wood-based products.

A project proposal will be made accordingly.

Project results will have impact on the state, co-operative, joint venture and private sectors of the wood industry in Myanmar. GOM is aiming to decrease the export of logs and rough sawn lumber and increase export of higher value added products by down stream processing. Trained workers and management in this sector will contribute immensely towards achieving this objective.

The survey tour which is listed under activity (7) enabled the personnel of the executing agency to be more exposed to furniture production methods, sales and marketing techniques (including costing of furniture) being practised in Malaysia and Thailand, two countries which are considered more developed than Myanmar in furniture manufacture because of the annual income generated from the wood industry sector. Immediate impact on sectoral programmes, physical environment and social environment could not be envisaged yet due to limited scope of the pre-project.

As the specific objective of the pre-project is just to define the strategy and action plan for up-grading production efficiency in furniture manufacturing,

timely efforts to submit a concrete proposal will be made to achieve project sustainability. Suggestions from the consultants complemented by new concepts and ideas obtained from the survey tour will be put into use to improve the furniture production and marketing.

2. SYNTHESIS OF THE ANALYSIS

(a) Specific objectives achievement	-	Realised
(b) Outputs	-	Realised
(c) Schedule	-	Delayed but not seriously
(d) Actual Expenditure	-	Below planned

PART III.

CONCLUSIONS AND RECOMMENDATIONS

1. DEVELOPMENT LESSONS

The pre-project was designed in such a way that the current status of the furniture industry in Myanmar is identified. To achieve this, international consultants had to be engaged to analyse and submit their findings. The consultants made a very good analysis on the existing situation, and the shortcomings were pointed out. The consultants gave necessary advice on what could immediately be done to improve current production and marketing practices. Engaging a consultant from Malaysia, a country rich in the experience of exporting furniture and components, was a correct decision. Malaysia was included in the survey tour and his continuing assistance during the tour enable the study group to recapitulate in the evening on what they have seen during the day. The production consultant also had a very important impact on the furniture production people in Myanma Timber Enterprise with his drive and sincerity of purpose. His recommendations especially on quality control, and crosscutting of wood were immediately put into practice as far as practicable.

The survey tour was also well conceptualised. It enhanced the knowledge of the personnel and they could use in Myanmar what they have learnt abroad. The people got a very good exposure to foreign markets and production techniques which would not have been possible otherwise.

It is recommended that ITTO keeps a data bank of available consultants in various fields of wood processing and supply them to executing agencies on request.

Developing countries with limited financial resources lacking in skilled workers greatly benefited from this opportunity to study systems of production in foreign countries.

2. OPERATIONAL LESSONS

Considering that the PPD 7/ 96 Rev.1 (I) is the first ever ITTO project for Myanmar, project organisation was properly drawn up and managed, considerably well. Monitoring missions were a great help and experience gained from this pre-project would greatly influence the planning of future projects, especially in the areas of hiring consultants and budgeting. Various sectors of the Ministry of Forestry contributed to the successful completion of the pre-project. For projects of longer duration, a separate task force should be formed to concentrate entirely on the execution of the programmes.

3. RECOMMENDATIONS FOR FUTURE PROJECTS

It was concluded from this pre-project that Myanmar, though considerably rich in forest resources, is still far behind in technology and expertise in the fields of sawmilling, plywood manufacturing, furniture production and in downstream production. It is the intention of the Myanma Timber Enterprise to reduce the export of logs and increase the export of higher value added products. This would not be possible without capital, and expertise. As large foreign capital inputs can be expected only from expatriate investors, it is conceived that an upraise of the skills of workers and supervisory staff is mandatory. This could be done with the assistance of a project from the ITTO.

A training centre should be established to produce skilled workers and managers for downstream production. Experts and consultants would have to be hired to train the local people, and conducting of the training of trainers, and also giving the personnel overseas exposure. This would also create more employment opportunities in sectors where skilled labour is most essential.

The Myanma Timber Enterprise, with its cohesive organisation will be responsible for implementation of the project. A project task group will be formed to manage the day to day operations.

Since the wood industry includes sawmilling, plywood manufacture, furniture factories, and MDF factories, training of personnel to understand and apply modern production techniques will be necessary. This complement by a current marketing approach would enable Myanmar to increase foreign exchange earnings by exporting more value added items.

Responsible for the Report



Name: Myint Kyu Pe

Position held: Chairman, Project Central Co-ordination Committee

Date: 22nd September 1997.

Annexure

OUTPUT

A comprehensive project proposal for upgrading productively in furniture manufacturing in accordance with market analysis.

ACTIVITIES

1. Analysis of existing production system
2. Analysis of existing production procedure
3. Analysis of existing production
4. Analysis of existing quality control system and product quality
5. Market analysis of present exporting items.
6. Prospect of production and marketing of product using LKS.
7. Market and production survey tour.

(a) Trip to Thailand

The reason to visit Thailand is due to the fact that it has been a long established furniture production source. Myanmar teak wood has also been supplied to that region for many years. Hence it is necessary to study ways to promote continuity of Myanmar teak wood and knock down furniture components to Thailand in future.

(b) Trip to Malaysia

Malaysia at present is a leading producer of tropical hardwood furniture. Many hardwood species found in Myanmar are similar to those of Malaysia. A study of furniture production in Malaysia will be beneficial for introduction of Myanmar hardwoods to the international furniture markets.

8. Preparation of project proposal for upgrading productivity in furniture manufacturing in accordance with market analysis.
9. Preparation of pre-project completion report.