ASIAN DEVELOPMENT BANK
Post-Evaluation Office

COUNTRY SYNTHESIS OF POSTEVALUATION FINDINGS

IN

MYANMAR

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I. INTRODUCTION

1. The Country Synthesis of Postevaluation Findings (CSPF) provides a summary of the lessons learned from postevaluated projects in a developing member country, based on an analysis of the major factors affecting the implementation and operational experience of Bank-financed projects. It aims to disseminate the lessons suggested by the experiences of completed projects in order to improve the design, implementation and operation of future development projects and programs. The CSPF is based on a review of the findings of postevaluation reports prepared by the Post-Evaluation Office (PEO), namely: Project Performance Audit Reports (PPARs), Impact Evaluation Studies, Country Special Studies, Reevaluation Studies and Technical Assistance Performance Audit Reports (TPARs). It also takes into account the information and data stored in the PEO's Postevaluation Information System (PEIS), including the Abstracts of Postevaluation Findings.

II. BANK OPERATIONS IN MYANMAR

2. The Bank started its operations in Myanmar in 1973 with the provision of four loans amounting to $19.1 million for two projects, namely, the Power Transmission Project and the Rangoon Water Supply Project. Since then until 1988,[1] the Bank had approved 28 projects under 32 loans for an aggregate amount of $530.9 million (see Appendix 1, page 1). Except for two loans for the first two projects amounting to $6.6 million which were funded from the ordinary capital resources (OCR), all the remaining loans came from the special fund resources (ADF).

3. Almost 60 percent of the total lending went to the agriculture and agro-industry sector, followed by social infrastructure (19 percent). The rest was distributed among the transport and communications sector (8 percent), the energy sector (6 percent), the industry and non-fuel minerals sector (4 percent), and the development finance institution sector (4 percent).

4. The Bank has also provided technical assistance (TA) for 38 projects to Myanmar for an aggregate amount of $11.3 million of which 51 percent were utilized for advisory purposes and the remaining 49 percent for project preparation purposes. About 58 percent of the TA funds for Myanmar went to the agriculture and agro-industry sector while 24 percent were utilized for the social infrastructure sector. The remaining 18 percent were distributed among the energy, industry and non-fuel minerals and finance sectors (see Appendix 1, page 2).

5. Except for the Edible Oil Project[2] that was suspended in October 1989, all the Bank-financed projects have been completed and ten have been postevaluated. The postevaluated projects represent all the major sectors, except finance and transport and communications, and comprise five projects in the agriculture and agro-industry sector, two each

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1 After 1988, no Bank assistance (in the form of loans or technical assistance) has been provided to Myanmar.

2 Loan No. 777-MYA(SF): Edible Oil Project, for $35.0 million, approved on 04 February 1986.

for the energy and social infrastructure sectors, and one project in the industry and non-fuel minerals sector. All the postevaluated projects were approved during the 1970's or early 1980's. Appendix 2 provides the list of postevaluated projects in Myanmar as of 29 February 1996.

III. MAJOR FINDINGS AND LESSONS LEARNED

6. This section focuses on the major findings and lessons learned from the postevaluated projects in Myanmar including the sectoral and subsectoral issues raised. Appendix 3 shows the summary of the projects' postevaluation results in terms of loan amount, project cost, cost and time overrun/underrun, economic internal rate of return (EIRR) and financial internal rate of return (FIRR) estimates, and performance rating.

A. Agriculture and Agro-Industry

7. The postevaluated projects in this sector consisted of two industrial crops and agro-industry projects and one project each in the irrigation and rural development, fisheries and forestry subsectors. The five projects, which accounted for half of the total number of postevaluated projects in Myanmar, had an average delay of 1.7 years or 56 percent. Some of the reasons cited for the implementation delay were absence of detailed design and tender specifications, change in scope and design, shortage of local currency fund, cost escalation and lack of experience in implementing projects by some of the executing agencies. Four of the projects had an average cost overrun of about $11 million equivalent to 39 percent and one project had a cost underrun of 3 percent. The cost overruns were largely due to the worldwide inflation resulting from the oil crisis, fluctuations of the foreign exchange rate, and underestimation of local currency costs during appraisal and re-appraisal. Three of the projects were rated generally successful, one partly successful and one unsuccessful in achieving their objectives.

1. Irrigation and Rural Development

8. Of the four projects funded by the Bank in the irrigation and rural development sector, only the **Crop Intensification Program** (approved in 1981) was postevaluated. The Program's objective was to strengthen the Whole Township Paddy Production Development Program (WTPPDP) in 12 townships and to improve yields and production of paddy on about 590,000 hectares.[1] This was to be achieved by increasing the supply of fertilizer and providing complementary facilities and support services.

9. The Program was rated generally successful. The timely procurement of fertilizer and the increase in fertilizer storage capacity facilitated fertilizer distribution and use in the

[1] WTPPDP was launched in 1977/78 to achieve rapid and sustained increases in paddy yields and production through intensive use of inputs and adoption of high-yielding varieties (HYVs) and improved cultural practices. The intensified production program was in line with the Government's Fifth Four-Year Plan aimed at agricultural modernization and increased production of industrial raw materials and export oriented crops and goods.

Program area. The flexibility incorporated in the design of the Program made it possible to import additional batches of fertilizer when loan savings were realized due to the decline in fertilizer prices in the world market. Consequently, three townships were added to the Program coverage and all the townships included in the original Program area received additional supply of fertilizer. While the significant improvement in paddy production and yields was obtained mainly through the enhanced application of fertilizer, the increased availability of high-yielding varieties (HYVs), adoption of improved cultural practices, and improved delivery of extension services also helped improve the production performance in the Program area. Providing the farmers with more intensive training on crop water relationships, judicious and timely application of fertilizer, and better utilization of the new HYVs of rice would have further improved the program's overall performance.

10. The experience demonstrated that crop intensification programs can be effective instruments for improving productivity and growth in the agricultural sector and that a program can be designed so that it provides flexibility and adaptability in the implementation of the various components. However, the full potential of a well-designed program can only be achieved in the presence of a conducive policy environment. For this Program, discussions on policy issues such as the Government's subsidy policy on the purchase price of fertilizer and procurement price for paddy were found to be particularly sensitive areas of negotiation. It was, therefore, felt that the Bank could have considered a program loan of a more substantial size in order to have sufficient leverage in the policy dialogues on pricing and subsidy issues. Finally, while the Bank's supervision of the Program implementation was satisfactory, it should have provided technical guidance for the conduct of socioeconomic surveys and for the improvement of record-keeping and management information systems conducive to effective monitoring and evaluation of program operations and benefits.

2. Industrial Crops and Agro-Industry

11. The Bank funded five projects in this sector two of which were postevaluated. The Rice Processing Industries Project was classified as partly successful and the Jute Mill Project was rated unsuccessful. The two Projects had an average delay of 2.4 years or the equivalent of 72 percent. Both Projects experienced cost overruns averaging about 47 percent.

12. The **Rice Processing Industries Project**, approved in 1974, aimed at the rehabilitation of the rice milling industry, and was the first project in the sector to be funded by the Bank. The overall objective of this Project, which was to improve the efficiency of the processing and storing of agricultural products particularly rice, has only been partly achieved. The Project was formulated without any detailed feasibility study. Consequently, the Project design, as approved by the Bank, was over-ambitious and had many shortcomings that caused problems during implementation and affected subsequent performance of the Project. Some of the Project components were designed on the basis of commercially unproven technology, or unrealistic cost estimates. Also, insufficient consideration was given to the institutional capability of the executing agency and such important factors as traditional cultural practices and constraints in the rice milling industry. In addition to the poor project design, the Bank's supervision and guidance in solving various problems during implementation was not adequate, either, because the Project included a number of components which were complex and fragmented over a wide geographical

area or the Bank lacked the required expertise. Thus, during Project implementation, the silo component was deleted; the number of rice bran stabilization plants and rice bran oil refineries reduced; and the renovation of the private rice mills and rice bran oil extraction plants altered.

13. The experience of the Project illustrated the need for detailed feasibility study and careful project preparation, particularly when the project involves a new sector, a new/inexperienced executing agency or new technology. Another lesson learned from the Project was the difficulty in supervising those projects involving specific technical expertise not available within the Bank. If deemed necessary, the use of short-term specialists should be considered in the Bank's review missions or in the scrutiny of tender documents/evaluations.

14. The **Jute Mill Project**, approved in 1975, was classified as unsuccessful. Although its major objective of helping the country attain greater self-sufficiency in jute products, particularly jute bags, was generally met, it was actually achieved at a high economic cost. In fact, the unit production cost of jute bags, the main product of the jute mill, was higher than the import prices of similar products from the major jute producing countries. It thus appeared that Myanmar had no comparative advantage in jute goods manufacture. Given the existing competition between jute and paddy for resource utilization, the determination of the economic viability of the Project should have considered the real economic cost of raw jute expressed in terms of domestic resource costs including the net value of paddy foregone instead of simply looking at Government determined procurement prices. Using this approach, a reestimation of the economic viability of jute cultivation resulted in a negative return compared to the appraisal EIRR estimate of 16.8 percent which applied the apparently distorted procurement prices of jute and paddy. The Project experience showed an important lesson: for future agro-industry projects whose main objective is self sufficiency, comprehensive analysis should be undertaken during appraisal to determine whether the agricultural base is economically efficient and whether any prior assistance from the Bank is needed to improve agricultural productivity. An assessment of the Project also illustrated that the Bank could have first assisted Myanmar in improving jute production, in line with the favorable agronomic and climatic conditions. Assistance in the agricultural aspects of jute production would have resulted in considerable improvement in both jute yield and quality and a reduction of raw jute cost which, in turn, would have made the country more competitive in the manufacture of jute products.

15. The Project had a substantial cost overrun of about 78 percent due to procurement of more expensive machinery and equipment in the mill and factory sections, the construction of a larger and stronger main factory building than originally designed, heavy piling works in most of the sites, the unexpected increase in commodity tax and custom duty, and the fluctuations of the foreign exchange rates. In this connection, it was also felt that it would have been worthwhile to have included foreign consultant services in the area of planning, designing, preparation and evaluation of tenders for procurement. The combined efforts of local expertise and competent foreign consultants would have strengthened the ability of the executing agency in designing the project, selecting the machinery and equipment, and in safeguarding agency interests in negotiations with machinery and equipment suppliers. Another lesson that emerged from the Project was the importance of conducting a thorough assessment of the financial covenants to be stipulated in the Loan Agreement such that the economy-wide impact of the specific covenants would be taken into consideration.[1]

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[1] For example, under the Project, it was covenanted that the prices of jute products would be increased and maintained at a level

3. Fisheries

16. The Bank has approved three projects in the fisheries sector for an aggregate loan of $55.8 million. Only the **Fisheries Development Project** was postevaluated. The Project, which was formulated in 1974 based on a FAO/IBRD Project Identification Report for fisheries development in Myanmar, aimed to increase fish production for domestic consumption and increase foreign exchange earnings through exports.

17. The Project was rated generally successful. One of its major achievements was the introduction of an incentive scheme that enabled fishermen to earn higher incomes than the flat rate payment prevailing prior to the Project and paved the way for commercial operation of the executing agency.[1] But, the actual incentive scheme as established by the executing agency in its entire operation applied to the gross quantity of fish catch only. The scheme would have achieved fully its objectives had the profitability of fishing vessel operations and quality (including freshness) of fish been considered. Although the changes in the Project site and design partly contributed to the 25-month delay in the completion of the refrigeration complex, much of it was due to the inability of the government corporations to complete the civil works. At the time of postevaluation, construction of the slipway had yet to be completed and, in the end, failed to alleviate the shortage of maintenance and repair facilities. The Project also experienced a substantial cost overrun of about 400 percent in the local cost components due largely to the taxation scheme newly introduced by the Government during the construction phase of the project.

18. While the Project remained economically viable, experience from its implementation underscored the need to strengthen coordination among several agencies involved in the Project implementation, particularly those entrusted with the task of civil works. In addition, the proper maintenance and repairs of vessels would have to be ensured by maintaining sufficient stocks of spare parts as well as conducting preventive maintenance. It is also important to improve the quality of the executing agency's export products,i.e., shrimps, and to introduce appropriate pricing policies in order to achieve higher producer prices and improve the financial performance of the Project.

4. Forestry

19. In view of the significant role and the high potential of the forestry sector in the economy of Myanmar, the Bank financed two forestry projects with an aggregate amount of $50.1 million. Only the **First Forestry Project**, which, at the time of its approval in 1977 was in fact the

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necessary to ensure the financial feasibility of the Project. While these covenants could be justified from the Project's financial viewpoint, their overall impact on the economy in terms of price distortions have not been looked into. Since the domestic prices of the jute products as fixed by the Government were already higher than their economic values as well as the international price level, any further increase in the price of jute goods would have perpetuated inefficient use of the country's scarce resources.

[1] The scheme provides for a variable scale incentive to be paid to the fishing crews based on weight of fish caught per number of days at sea. The minimum weight required to qualify for the incentive varies by boat class and the season, i.e., monsoon or non-monsoon.

Bank's first loan to the forestry sector in general, was postevaluated.

20. The performance of the Project was assessed as generally successful. The major objective of the Project was to remove constraints on increased production of teak and other hardwood through construction of new access roads, provision of new extraction and transportation equipment for logging operations, rehabilitation and modernization of sawmilling industry, and improvement of forestry management. A substantial increase in teak and hardwood production was actually achieved during the first few years of the Project period. Although the production started to decline thereafter, the short-term sustainability of the Project was not in doubt. However, the sustainability of Project benefits in the long run would depend on greater emphasis on hardwood extraction as envisaged during appraisal, limited extraction of teak in accessible areas, a more realistic enforcement of the annual allowable cut (AAC) policy, a rational pricing structure for domestic sales of wood and a sustained implementation of the ongoing scheme of reforestation. The design of the Project, though satisfactory overall, could have been improved. The poor utilization of mechanical skidders and chainsaws and underutilization of trucks, road building equipment and kiln dryers were due partly to unsuitability of some equipment and partly to the introduction of some modern equipment into a traditional logging operation that was not ready to take full advantage of the new and modern equipment owing to limited supplies of fuel and spare parts. The Project experienced a one-year delay occurring mainly in the road construction and sawmill modernization components due to the inadequate logistical support provided by the executing agency as well as shortage of fuel, funds and equipment. The Project included specific provisions for periodical review of the domestic prices of teak and other hardwood and the adoption of appropriate incentive schemes, both with an aim to encourage hardwood production and enhance the cost consciousness of the staff in the executing agency. However, the Bank had limited success in ensuring the executing agency to comply with such loan covenants.

21. The experience from this Project suggested that in designing projects that seek to transfer modern technology and management skills, the difficulties of Government agencies in providing for adequate logistical support in the context of limited financial resources should have been taken into account. In this context, the Bank's future lending to this sector could be in the nature of a program loan with built-in provisions for a flexible importation policy that would allow rapid procurement of spare parts and replacement of old and immobilized equipment with new and efficient units. On the part of the Bank, the Project experience demonstrated that the effectiveness of loan covenants should have been carefully assessed in the context of the country's socioeconomic framework and in terms of their contribution to the achievement of the project objectives.

B. Energy

22. The Bank financed three projects in the energy sector under four loans for an aggregate amount of $31.8 million. There were two projects for the electric power subsector and one project for the refinery subsector. The Bank postevaluated the Power Transmission Project and the Petroleum Refining Industry Program. The Power Transmission Project had an implementation delay of 3.8 years (93 percent) and a cost overrun of $14.1 million (144 percent), while the Petroleum Refining Industry Program experienced a delay of 2.5 years (132 percent)

and a cost underrun of $1.2 million (15 percent).

1. Electric Power

23. The **Power Transmission Project**, which was approved in 1973 as the first Bank-financed project in Myanmar, was rated generally successful in meeting its stated objectives of transmitting the energy generated by two gas turbine stations in the country to the load centers and partly to the hydro grid system to help alleviate intermittent power shortages. However, since the transmission facilities materialized long after the gas turbine stations had been commissioned, the utilization of generating capacity remained restricted to nearby load centers and to temporary, unreliable transmission line connections for several years. With the expected completion of an IDA-financed transmission project that was designed to integrate the country's grids through new transmission lines, fuller utilization of system capacity would be achieved, hence improving the overall power system.

24. The Project had an implementation delay of almost four years equivalent to about 93 percent time overrun. The implementation delay was largely due to the change in scope and design of the transmission lines and substations, delays in issuance of tender and bid evaluation and problems relating to steel towers, lack of detailed implementation schedule during appraisal and lack of well-prepared list of items to be procured. The substantial cost overrun experienced by the Project was mostly due to the worldwide inflation resulting from the oil crisis.

25. Several lessons of experience emerged from an assessment of this Project such as (i) the importance of synchronizing the transmission facilities with the gas turbine generators in order to fully utilize the power station's capacity; (ii) the need for closer Bank assistance to agencies that are executing projects for the first time by streamlining the tendering procedures, providing advice in the preparation of tender documents as well as in overcoming deficiencies in the accounting and management information systems and more importantly preparing a detailed implementation schedule; and (iii) the need for the Government to prepare an integrated system planning and development especially during the initial period of project design. On the part of the executing agency, the Project experience proved that its financial position can be improved by reducing the system losses resulting largely from inadequacies of transmission and distribution systems and defective metering, billing and collection procedures.

2. Refinery

26. The **Petroleum Refining Industry Program**, approved in 1980, is the only Program funded by the Bank in the refinery subsector of Myanmar. It aimed to rehabilitate some components of the dewaxing facilities of the Chauk Refinery and to improve the quality of output of various petroleum products of the Syriam Refinery. The two refinery facilities were rehabilitated generally in accordance with the design parameters, and the Program enabled the old refineries to operate longer than would otherwise have been. However, the Program's objectives of increasing the production associated with higher capacity utilization and improved quality of petroleum products have been achieved to a limited degree only. The capacity utilization of the

refineries turned out to be much lower than anticipated due mainly to inadequate crude oil supply from domestic fields. Therefore, the Program was rated partly successful. The low capacity utilization, coupled with the low administered price of petroleum products, resulted in poor financial performance of the executing agency. In terms of implementation experience, the Program was completed with a delay of 2.5 years. Delays were mainly due to major problems experienced in procurement, particularly of proprietary spare parts, as some of the original suppliers of refinery plant and equipment had already gone out of business.

27. The Program experience confirmed the importance of preparing contingency plans especially in a situation where uncertainties prevail as in allocation of crude oil to the existing refineries in the country. As part of the contingency plan, an evaluation of the economic costs and benefits of importing crude oil to make up for the shortage in domestic crude oil supply would have to be conducted. Also, provision would have to be made for the replacement, in the medium term of at least one of the two old refineries which have all but completed their economic life. Furthermore, as a matter of priority, petroleum pricing policies would have to be reviewed so that prices may be set which better reflect current production cost. Such review would need to take into account the wide divergence between administered and free market prices.

C. Industry and Non-fuel Minerals

28. The **Program Loan for the Cement Industry** is the only Program funded by the Bank in the Industry (non-agriculture) subsector of the country. Under the Program, which was approved in 1979, the two cement plants in the country were provided with spare parts, components (including various items to replace worn-out and aging equipment) and complementary equipment such as quarry equipment and cement paper bag making equipment. Overall, the Program achieved the stated objectives of increased productivity and improved capacity utilization of the cement industry in the country. The Program even contributed to the improved financial performance of the two cement plants. Therefore, the Program was classified as generally successful. However, the environmental impact of rehabilitation program on pollution was not addressed during appraisal nor at the completion stage of the Program. There were no environmental regulations such as pollution control standards being enforced in the country. The quantities of dust at the plants were not being measured much less recorded. The Program scope could have included the installation of dust control equipment and construction of an electrostatic precipitator.

29. The experience from the Program pointed out that in an economy such as in Myanmar, where direct Government involvement in the industrial sector was extensive, covenants requiring adjustment of prices to generate sufficient revenues to cover operating expenses would not have been appropriate. Especially in the cement industry where the output is an important raw material in other industries or sectors, it would have been helpful to undertake an intersectoral price review and also to align the domestic price structure more closely to comparative international price levels. Further, an offer of technical assistance from the Bank to address overall pricing issues would have proven more effective and more beneficial to the country's economy than piecemeal approaches through specific price covenants under various program or project loans. Lastly, the Program experienced a two-year delay in implementation due to unfamiliarity of the executing agency with the Bank procedures and inadequate supervision of the

Bank; the Bank could have provided more guidance to the executing agency which implemented a Bank-financed project for the first time.

D. Social Infrastructure

30. The Bank financed four projects in the water supply and sanitation and health and population subsectors for an aggregate amount of $99.1 million. Two projects, one from each of the subsectors, were postevaluated. The average delay in completing the two projects was 4.5 years or about 100 percent longer than the estimated implementation period. The delay was largely due to changes in the project scope and design, lengthy time involved in evaluating tenders and awarding of contracts, procurement and installation of equipment, and appointment of consultants for the preparatory and pre-implementation work. The executing agencies' lack of familiarity with Bank procedures and on the part of Bank, a lack of familiarity with the Government's administrative procedures aggravated the problem. The water supply and sanitation Project had a cost overrun of $45 million or 136 percent due to freight and insurance for materials and equipment which were not included in the original estimate, major changes in the Project scope and design and to some extent price escalation. On the other hand, the health subsector Project had a little less than a million dollars of cost underrun resulting largely from underutilization of fellowship and consultant services provisions.

1. Water Supply and Sanitation

31. The **Mandalay Water Supply Project**, the second project funded by the Bank for Myanmar's water supply and sanitation subsector was approved in 1982 together with an advisory technical assistance, which aimed at introducing improvements in the management and operation of the water supply system. Although major changes in the scope and design[1] had to be made during the detailed design, the Project was able to achieve its main objective of developing a cost-effective water supply system which supplied better quality water, provided more reliable service and covered a larger area compared with the previous water supply system. The initial service coverage target of the Project was substantially met. The Project was assessed generally successful. But, the change in scope and design resulted in the full commissioning of the Project being delayed by over five years. The delay in Project implementation was also attributed to the severe shortage of local construction materials, inadequate construction supervision by the consultants, and complicated and inefficient organizational set-up for Project management. Besides the delay in Project implementation, the changes in the design and scope also contributed to a substantial cost overrun of 136 percent.

32. Although the Project provided better quality water to some 52 percent of the population compared to 39 percent prior to appraisal, a large proportion of the consumers belonged to the higher income group, i.e., those who can afford private house connections. Of the

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[1] The changes in the design and scope consisted of: (i) the development of groundwater sources to a higher capacity farther north of the wellfields proposed during appraisal; (ii) an increase in firefighting capacity (a big fire in 1984 caused extensive damage to properties in the city); and (iii) the extension of the service coverage to a new housing scheme in the southeastern part of the city.

785 public faucets targeted under the Project, only 56 were installed. Furthermore, the Government continued to operate the moat system which provided low quality water for people in the low income group. In order to enable the installation of more public faucets and extend the benefits of piped water supply system to the poor, the executing agency would need to provide assistance in the organization and training of low-income groups for proper operation and maintenance of the public faucets. In view of the inevitable increase in wastewater as a result of the project, a master plan for sanitation and drainage systems in Mandalay was prepared under the Project. But, due to resource constraints of the Government, it was not fully implemented, hence there remained an urgent need to complete implementation.

33. Besides the need to address socioeconomic and environmental issues as indicated above, the Project experience highlighted the need to undertake appraisal only after substantial completion of project design, which could have helped minimize the change in project scope and design during the implementation period. Also demonstrated under the Project was the importance of an appropriate organizational setup for project management, realistic implementation schedule and close supervision by the Bank, especially when the executing agency and other agencies concerned are inexperienced in undertaking similar projects. The need to strengthen the technical and financial capabilities of the executing agency for proper operation and maintenance of the Project facilities was also suggested.

2. Health and Population

34. The **Upgrading of Hospitals Project**, approved in 1981, was the Bank's first project in the health sector in Myanmar. Viewed overall, the Project was only partly successful in achieving its intended objectives of: (i) strengthening the diagnostic and surgical operation capacity of selected hospitals to improve primary health care service; and (ii) upgrading the medical supplies distribution system as well as the maintenance and repair of medical equipment. Due mainly to the executing agency's inexperience in dealing with the Bank's procedures, and a lack of familiarity with the Government's administrative procedures and inadequate supervision on the part of the Bank, it took more than eight years to complete the project as compared to the expected implementation period of four and a half years during appraisal. Apart from changes in the capacity of x-ray machines and in the number of fellowships, other project components were implemented as envisaged during appraisal. However, most of the high-range x-ray machines were severely underutilized and some have never been operated because of technical defects or the absence of radiologists. Similarly, many of the non-medical facilities and equipment, medical supply storage facilities and also repair and maintenance facilities were either unutilized or underutilized due to technical defects, substandard construction and poor maintenance, shortages in fuel in the case of generators, inadequate examination of the schedules and magnitude of the service required during Project preparation, and lack of staff and spare parts. The contributions of the consultants engaged under the Project were considered less than satisfactory in terms of advice on physical design, specifications on installation of equipment, and inputs in the training curriculum. The training program for repairmen at the central workshop never started because of the non-availability of trainees as well as inadequate training staff.

35. The lessons learned from the Project point to the importance of undertaking needs assessment and facilities surveys before formulating a project in general and the equipment list

for procurement in particular. It also confirmed the need for participation of key hospital personnel in project preparation to ensure that their priority needs are fully taken into account. Equipment packages should have been prepared on the basis of specific needs on a case-by-case basis rather than the standard supply strategy. The Project experience likewise highlighted the need to ensure availability of well-trained personnel to operate, maintain and repair machines and equipment provided in a project.

36. Despite the general commitment of the Government to strengthen and upgrade primary health care services, the provision of recurrent budget for staffing, maintenance of facilities and supply of essential drugs had been declining and considered inadequate. To address the problem, the Government approved a National Health Plan and introduced various strategies and measures for increased community participation, private sector involvement and cost recovery. The establishment of Hospital Management Committees became common features in the country, and through this mechanism, donations were collected (both in cash and in kind) and funds were managed. The concept of cost sharing was also introduced through establishment of meditrade (drugstores) outlets in hospitals which sell medicine to patients at production cost, with the Government absorbing taxes and costs of storage, delivery and personnel. Sharing of costs also applied to surgical operations. Although the Project illustrated the need for identification of such indigenous strategies and innovative practices to help sustain health projects, the funds collected through the cost recovery strategies are still not enough. In order to ensure the sustainability of the Project benefits, therefore, the Government would still have to consider increasing the recurrent budget of hospitals.

IV. CONCLUSIONS

A. Overall Assessment

37. Postevaluation findings have indicated that the projects financed by the Bank in Myanmar have performed generally well. Of the ten postevaluated projects, six were classified as generally successful, three as partly successful and one as unsuccessful. Appendix 4 shows the projects' performance ratings by sector in terms of the number of projects, amount of disbursed loan, and actual project costs. In view of the small number of postevaluated projects representing each subsector, a comparative assessment of the projects' performance on a sectoral basis is not meaningful.

38. All the postevaluated projects experienced delays with the actual implementation period averaging six years compared to 3.4 years, or about 81 percent longer than estimated at appraisal (Appendix 5). The energy and social infrastructure sectors exhibited the longest implementation delays averaging 3.2 and 4.5 years, respectively. The agriculture and agro-industry sector had an average delay of 1.7 years only and the industry and non-fuel mineral sector had a two-year implementation delay. Across sectors, the delays were caused mainly by poor or lack of detailed project design resulting in modifications in design and scope including changes in project site, lack of implementation experience on the part of the executing agencies, problems concerning procurement and recruitment of consultants, and in some cases the

absence of detailed implementation schedule. An assessment of the postevaluation findings also pointed to some weaknesses in project supervision on the part of the Bank.

39. Seven postevaluated projects had cost overruns which on the average was about 64 percent (Appendix 6). The cost overruns of the four projects in the agriculture and agro-industry sector averaged 39 percent while the lone industry and non-fuel mineral sector project had a 12 percent cost overrun. One of the projects in the energy sector exceeded the estimated project cost at appraisal by about 144 percent and one project in the social infrastructure had a cost overrun of 136 percent. The remaining three projects experienced cost underruns averaging seven percent. The cost overruns were largely attributed to the unpredictable degree of escalation brought about by the oil crisis in 1973. However, other factors such as modifications in design and scope, fluctuations of foreign exchange rates, underestimation of local currency costs, and implementation delays also contributed. The cost underruns were due to underutilization of the provision for consultant services.

B. Major Lessons Learned

40. The postevaluated projects were approved between 1973 and 1982. Except for the two social infrastructure projects which were completed in 1990 and 1992, all the projects were completed by 1985. Meanwhile, beginning in the late 1980s, the Government embarked on various socioeconomic reforms as part of the country's transformation from a centrally planned economy to market-oriented economy. The policy initiatives included deregulating the agricultural sector, legitimizing private sector activity and adopting an open door policy for foreign direct investments. Given those economic reforms, some of the specific findings and lessons learned from the postevaluated projects may no longer be valid. However, the Government has yet to restructure the public sector in line with market principles. Decision-making process is still centralized as reflected in all public financial resources being centrally pooled and allocated and output prices being kept artificially low. Most state enterprises suffer inefficient and unprofitable operations. In other aspects, too, the process of economic reform is far from complete, and the economy still has many structural weaknesses, thus the presence of chronic budget deficit, high inflation rate and overvalued exchange rate.[1] In light of the country's economic situation, many lessons learned from the postevaluated projects could be still of use in the Bank's future operations, in particular those on: (i) project preparation and design; (ii) institutional capacity; (iii) Bank supervision; and (iv) pricing aspects.

41. Shortcomings in the design of projects resulted in major changes being made during implementation which in turn led to delays and costs overrun. The experience gained from the postevaluated projects demonstrated that appraisal would have to be undertaken only after the project designs, based on detailed feasibility studies and careful needs assessment, have been substantially completed. Appraisal should take into consideration the realism of the project design in terms of the project's overall objectives, technical complexity, implementation capability of the institutions involved, budgetary requirements, and adequacy of logistical support requirements. It is likewise necessary that economic and financial viabilities of projects are clearly

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1 Based on the Economic Report on Myanmar (ECR: MYA 95019) which was dated November 1995.

established at the appraisal stage, and that environmental impacts[1] are duly assessed and reflected in the project design. If necessary, the Bank should assist the Government in strengthening the country's environmental institutions and legislations.

42. The postevaluation experience pointed to the general lack of experience on the part of the executing agencies to implement the projects. For most of the agencies, it was the first time that the tasks of executing externally funded projects have been assigned to them. Because there has been quite a long time since Bank-financed projects were implemented in Myanmar, there would be stronger needs to undertake a thorough review of the implementation capacities of the executing agencies and take necessary steps for institutional strengthening if and when the Bank's operation in the country resumes in the future. As earlier mentioned, the centralized decision-making process in the country often resulted in time-consuming internal approval procedures and lack of flexibility in resolving project-related policy issues. Maximum efforts should be made to ensure that executing agencies can enjoy greater autonomy and adopt simplified or flexible administrative procedures. In designing the organizational setup for project management which involves various agencies, care should be taken not to hinder expeditious decision making. Training needs should be closely examined and the training program should match the project needs. Provision of adequate staff training before a project is commissioned, or training of technicians before installation of machines and equipment, would ensure efficient operation and maintenance of project facilities. Whenever necessary, the provision of consulting services to assist executing agencies in project implementation and technical assistance for their capacity building should be also considered. Another insight from the postevaluated projects in Myanmar was the importance of recruiting not only well-qualified consultants but also those who have had extensive knowledge of the country.

43. The need for closer Bank supervision was cited in almost all the postevaluated projects. While Bank supervision missions should be sent to the field with adequate frequency and duration, it is also necessary that the composition of the missions includes sector or technical specialists. Whenever specific technical expertise is not available, the Bank should use short-term specialists/consultants. The experience from the postevaluated projects pointed to some weaknesses on the part of the Bank in terms of providing assistance to executing agencies in the preparation of tender documents, examining tender evaluations, streamlining tender procedures, and overcoming deficiencies in the accounting and management information system. The need to prepare a realistic project implementation schedule and the conduct of more frequent reviews to identify problems and resolve issues that arise during implementation was also highlighted.

44. An assessment of the postevaluation experience indicated that one major area of Bank's concern is the domestic price distortion in the economy, which does not promote efficient utilization of resources. A very important lesson learned from the postevaluation experience is the necessity of applying correct economic prices in estimating the project's economic viability. It also has implications in the formulation of loan covenants. The experience gained from one postevaluated project proved that in formulating pricing covenants, the overall impact on the economy in terms of possible price distortions should be thoroughly examined, keeping in mind that the financial viability of the project and the executing agency should not be the sole determinant factor. Under another postevaluated project, it was also suggested to make use of

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[1] It has now become the usual requirement of the Bank to give due considerations to the environmental impacts of projects at all stages of the project processing cycle (O.M. Section 21, December 1992 and Guidelines on Operational Procedures, December 1995).

technical assistance for comprehensive studies on pricing policies and possible reforms thereon.

45. The Bank has yet to resume its lending and TA operations in Myanmar, although it continues to field missions to collect and update macroeconomic and sectoral data and includes the country in its regional activities. In anticipation of a reactivation of Bank operations in the country, the issues raised and lessons learned in the postevaluated projects should be looked into. Considering the economic transformation that the country is undergoing and the absence of any major development assistance from the Bank for the past seven years, it is imperative that comprehensive sector and subsector studies should be prepared with particular emphasis on pricing policies and regulatory frameworks.