

**Country Study for Development Assistance
to the Islamic Republic of Pakistan**

"Basic Strategy for Development Assistance"

February 1991

**Country Study Group
for Development Assistance to the Islamic Republic of Pakistan
organized by the Japan International Cooperation Agency**

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Foreword

Since its independence, Pakistan has continuously achieved high economic growth and increased its GNP per capita while the country encountered various challenges and difficulties such as its separation of Bangladesh. This high economic growth, however, has not contributed much to the development of the social sector nor to adjustment of disparities in income and assets among individuals, households and regions. The equalization of opportunities, which is the most important task for any country, is still far from being realized. The Government of Pakistan has been carrying out a structural adjustment program in consultation with the World Bank and IMF, aiming to solve the problem of "twin deficits" both in public finance and in foreign trade.

Pakistan and Japan have fostered a friendly relationship through trade and economic or technical cooperation since the establishment of diplomatic relations in 1952. Recently, expectations of cooperation from Japan has been increasing, as Japan has become a main donor to Pakistan, along with the United States of America. With this background, it has been realized that Japan's ODA policy should be formulated from the middle- and long-term perspectives to support Pakistan's effort to achieve sustainable economic growth and social development.

The Country Study Group for Development Assistance to the Islamic Republic of Pakistan was inaugurated in December 1989 under consignment from the Japan International Cooperation Agency (JICA) and since then, it has convened eight times, including one public discussion meeting. It has implemented on-site surveys,

including interviews with concerned government officials of Pakistan. It has examined the present state of economic and social development in the nation, and it has deliberated repeatedly on how Japan's development assistance to Pakistan should be structured. In summarizing the results of studies, deliberations and reports by the Group, I want to extend a special note of appreciation not only to the distinguished members of the Group for their cooperation, but also to the staff members in relevant divisions of the Ministry of Foreign Affairs for their participation and to the task force members in each field, centering on the staff members of JICA, for their solid support.

This report comes as the result of joint efforts by everyone referred to above. In view of the importance of economic development for Pakistan, I sincerely hope that this report will contribute meaningfully to dialogue and to the formulation of policy for assisting the nation in its development and that it will promote even stronger ties of friendship between Pakistan and Japan.

February 1991

Country Study Group for Development Assistance
to the Islamic Republic of Pakistan

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1. Framework for Considering Development Assistance to Pakistan

[1] Overall Review

- (1) Pakistan separated from British India and gained independence in 1947. However, in 1971, Pakistan lost control of the former East Pakistan, which established itself as an independent state, Bangladesh. With more than 100 million people and per capita GNP of US\$350, Pakistan is classified as one of the world's low income countries. It has to be recognized, however, that this country, with its 5000 years of history, has inherited not only the Indus civilization, but also the rich local cultures of Punjab, Sind, NWFP, Baluchistan and other regions.
- (2) Pakistan's 43 year history since its inception as a Muslim nation is characterized by struggles against serious internal and external difficulties. Some of these difficulties include: the loss of two great political leaders at the initial stage of independence; prolonged military administration; nationalization of the major industries under Islamic socialism; independence of Bangladesh; economic Islamization implemented following two oil crises; and three million refugees following the Afghanistan dispute.
- (3) In December 1988, Benazir Butto, the first female premier in the Muslim world, assumed the office of prime minister of Pakistan. The Bhutto regime, despite the nation's great expectations to the awaited civilian government, was confronted with various macroeconomic difficulties: measures

to overcome serious budgetary and trade deficits; maintenance of the flexible exchange rate; enforcement of the trade and tariff reforms, etc. These problems forced the regime to accept the structural adjustment program of IBRD and IMF. Moreover, the regime was urged to look into the basic social sector issues symbolized by the extremely low rate of literacy, labour participation rate of women, and the high rate of infant mortality. However, before achieving these objectives, the Bhutto government had to go out of office in the face of the adverse political situation in and out of the country in August 1990.

- (4) Despite the various challenges and difficulties stated as above, Pakistan attained an economic growth at the rate of 5.3% per annum (1949/50-86/87), which was the highest among South Asian countries, demonstrating the nation's high potential. It has to be noted, however, that this high rate of growth was insufficient in overcoming the existing socio-economic problems such as alleviation of poverty, increasing the labour absorptive capacity, and the mitigation of income and asset disparities. At present, effective measures are still sought to improve the adverse macroeconomic situations: a low domestic saving rate, high dependence on foreign borrowing, a stagnant production sector, especially manufacturing, and structural weaknesses in the foreign trade sector that does not lead to the improvement of the terms of trade.
- (5) In these circumstances, the key factors in achieving a sustainable economic growth and social development will be: first, the drastic improvement in the social sector leading

towards a more equitable distribution of opportunities; second, the restoration of vital production sector with high employment absorption; and third, the strengthening of the economic infrastructure to facilitate the overall development process.

[2] Basic Strategy for Development Assistance

Development is a responsibility of the sovereign nation concerned, and development assistance has to be considered strictly as a tool to support the self-help efforts of the recipient nation. Hence Japan's basic strategy for development assistance is primarily based on dialogue and mutual understanding with the recipient nations.

Pakistan needs support in wide areas of national development. In extending development assistance to Pakistan, it is important to establish a firm and long-term policy, leading towards the enhancement of preconditions indispensable for economic development, while maintaining a balance in assistance to other South Asian countries.

Along with the United States of America, Japan is the largest donor to Pakistan in total aid amount. Japan's development assistance, however, has covered only part of Pakistan's total requirements. Hence great emphasis should be placed on coordination and complementarity with other bilateral and international institutions and non-governmental organizations. Particularly significant is the relationship with

the World Bank Group and the Asian Development Bank, which have their own extensive aid experiences in Pakistan.

Based on the said recognition, the following three major aspects will be examined in terms of Japan's development assistance to Pakistan.

(1) Assistance to the Social Sector

As stated previously, the key to Pakistan's sustainable socio-economic growth and development lies in the social sector development which would help promote the equalization of opportunities for every individual and fair distribution of the fruits of economic growth to everybody.

So far, development of the social sector has been so slow that various social defects are seen everywhere, i.e., low rates of literacy and school attendance, high rate of infant mortality. Pakistan, which is presently undergoing structural adjustments, can not afford to place high priority on investments in the social sector that require a long gestation period.

In Japan's assistance to Pakistan the highest priority should be given to the social sector to support and encourage the envisaged development in this sector; more specifically, the measures aimed at elevating the low literacy rate (at present: 30%), and improvement of health, sanitation and medical care.

Japan's assistance in this sector may further raise Pakistan's already high population growth rate (3.1% annum) in a short run. However, it is conceived that the development of the

social sector, including improvement in education, health and medical care, high income growth and better distribution, would be more effective means to control population growth in a mid- and long run.

(2) Assistance to the Production Sector

As examined in the preceding section, Pakistan has attained relatively high economic growth during the past years. However, it has to be noted that it is not healthy for an immatured economy to face a rapidly growing service sector while the production sector, particularly the manufacturing, has remained stagnant.

To vitalize the manufacturing sector, it is necessary to improve the investment climate in a broader sense, including issues related to the role to be played by the private sector. In Japan's development assistance to this sector, priority will be given to encourage export-oriented smaller enterprises, and to the development of the economic infrastructure and the energy sector, particularly for the improvement of railway transport and promotion of coal production and utilization.

Agriculture is the dominant production sector in Pakistan, providing the nation's largest employment opportunities. The national economic structure is based on agriculture, which greatly affects the other production sectors and export. Japan's development assistance to this sector is thus of great importance. Here it has to be emphasized that Pakistan agriculture needs improvement of land productivity and

diversification of agricultural production, rather than hardware development.

For long-term and sustainable development in general, it has become increasingly important to pay attention to the pollution and environmental issues, for which Japan's technology and experience can be fully utilized.

(3) Promotion of Human and Cultural Exchanges and Deepening of Mutual Understanding

Pakistan is blessed with world-prominent cultures. To preserve such great human assets is one of the important tasks for Pakistan itself and also for the rest of the world. However, we have to be cautious to consider assistance in this field, for the cultural issues are country specific and reflect the value system of the nation. Therefore, what is needed is to set up a system on our side which should be ready to respond promptly to the specific requests from the receiving end.

It goes without saying that human exchange is the most effective and meaningful way to promote mutual understanding. Unfortunately, the efforts in this direction, has been far from satisfactory. In addition to the deeper understanding on economic and political situations of both countries, attention has to be paid much more than ever to the promotion of activities by which social, cultural and linguistic aspects be understood in a proper way. In this context, extra emphasis may be placed on the human exchange among young people.

2. Priorities in Strategy for Development Assistance

Based on the review in Chapter 1, it is considered that Japan's development assistance should focus on the following aspects.

[1] Improvement of Social Sector

[1-1] Improvement of Primary and Secondary School Education and Promotion of Science Education

The Government of Pakistan, in its 7th Five-Year Plan, has put priority on nationwide promotion of primary education. For the improvement of basic education, it is considered that primarily importance should be given to improving primary and secondary education both in quality and quantity. Along with this, Japan's future assistance has to be directed toward provision of relevant educational equipment, and promotion of human exchange for the purpose of expert training.

The relevant institutions, such as the World Bank, ADB and other bilateral aid agencies, have long been engaged in assistance for improving education in Pakistan. It is important that Japan's assistance in this field be extended in the future through coordination and information exchange with such agencies.

(1) Fostering of Female Teachers for Primary and Secondary Schools

The recent rate of primary school attendance (1st to 5th grades) is 68% for boys and 30% for girls in urban areas and 65% for boys and 42% for girls in rural areas. The adult

literacy rate is 30%, one of the lowest rates among the developing countries. In particular, rural women's literacy rate is the lowest.

It is critical for the promotion of primary education to increase the number of teachers in rural areas and to improve the quality of school teachers. The importance of fostering female teachers, who would raise girls' low school attendance, has been well recognized. It would be effective to extend assistance for the improvement of facilities for female teachers, mainly in villages and small local towns.

(2) Promotion of Science Education in Secondary Schools

The Government of Pakistan intends to greatly elevate the level of science education, which would enhance basic knowledge of health, medical care and hygiene.

To teach scientific knowledge applicable to daily life requires sufficient support aside from textbooks, such as laboratories, with necessary tools and equipment for experiments and practice. Few auxiliary apparatus such as projectors (OHPs) have so far been provided. It is preferable, however, that such apparatus be produced and supplied within Pakistan in the future, for which Japan will be able to extend necessary support.

(3) Improvement of Technological Education in Universities and Colleges

Technological education is conducted at 4 universities and 11 colleges of technology in Pakistan. Since lecturing in the

classroom is the major teaching method, experiments and research activities are relatively belated. It is necessary to renovate the laboratories and related facilities which are posing constraints on the promotion of practical exercises. In view of the fact that about 10,000 graduates per year would find jobs in the manufacturing sector, it is conceivable that such modernization of facilities and equipment in technical universities and colleges would have an impact on the said sector, too.

Transfer of production technology to the manufacturing sector would also be expected through various technological exchanges between universities and technological institutions in Japan and Pakistan.

(4) Exchange of Teachers and Regional Education Administrators

Human exchange programs including training of Pakistani teachers and regional education administrators conducted in Japan and dispatch of Japanese teachers to Pakistan for field guidance would greatly contribute to updating the existing curricula and deepening mutual understanding on both sides. In Pakistan, a group of approximately ten primary schools is put under control of a regional education administrator, whose influence on the management of the primary schools is considerably large.

It would also be beneficial to establish scholarship programs to encourage students of Pakistan to study in Japan and Japanese students to study in Pakistan.

[1-2] Improvement of Health and Medical Services

(1) Improvement of Primary Health Care

In Pakistan, hygienic knowledge has not been spreaded widely enough, partly because of the low literacy rate (30%) and the belated level of basic education. Women in particular, do not have sufficient knowledge of hygiene, nutrition management, and temporary treatment of sickness, which seems to be the main reason for the high infant mortality rate (108/1000).

To raise the standard of primary health care, it is important to reinforce regional health service units such as basic health units (BHUs) and rural health centres (RHCs) both in quality and quantity, and to promote their close linkage with regional clinics and hospitals for secondary and tertiary treatment. To lower the infant mortality rate and perinatal mortality rate in particular, it is necessary to support activities to re-educate doctors, nurses and traditional birth attendants (TBAs) working in BHUs and RHCs so that they can give instructions to the local inhabitants on nutrition, basic hygiene and health care.

Japan's future assistance in this field has to put priority on technical cooperation for improvement of medical treatment at strategically important spots, as exemplified by the Islamabad Infantile Hospital; and also on provision of medical equipment on a grant basis for strengthening regional health service units such as the current BHUs. These two types of assistance should be implemented in combination.

(2) Enrichment of Facilities for Secondary and Tertiary Treatment

For secondary and tertiary treatment in such large cities as Lahor and Karachi, there are not enough regional or general hospitals to cover the populations. Rather than building large general hospitals, it is more practical and effective to put priority on material support and technical cooperation for ① infantile hospitals, and ② cardiovascular disease hospitals, which could function as regional health and medical service centers.

(3) Control of Infectious Diseases

Infectious diseases (diarrhea and acute respiratory infections in infants and tuberculosis in adults) are still observed at high rates. Only 44% of the population has access to safe water (83% in urban areas, 27% in rural areas), which causes high rates of infectious diseases. Vaccination services executed in Pakistan are almost all dependent upon imported vaccines or medical assistance from abroad. Japan, with world prominent vaccines (pertussis, B-type hepatitis, etc.), could extend assistance for the promotion of domestic vaccine production. Since there is a qualified counterpart at the National Institute of Health (NIH), technical cooperation and material support would be feasible.

(4) Promotion of Medical Research Activities

Development of pharmaceuticals, quality control and research in basic medical science are all indispensable for raising the

nation's standard of medical treatment. University hospitals thus play an important role as clinical hospitals and educational/research institutions. It would be worthwhile to examine the feasibility of future assistance in this field. Specifying areas and subjects, such technical assistance to NIH or other university hospitals, would contribute not only to education of Pakistani students but also to academic research by the Japanese side.

[2] Creating Employment Opportunities and Increasing Productivity

[2-1] Fostering Viable Domestic Industries

Pakistan's industrial development commenced on a vulnerable basis since the early 1950s when PIDC was set up to induce private capital to participate in the process of industrialization. Currently the industrial sector comprises around 17% of the national GDP in terms of value added, which is next to that of the agricultural sector.

A key to Pakistan's economic growth lies in the activation of the industrial sector, especially in fostering internationally competitive manufactures. To this end, it will be best to encourage the private sector, in particular, small and medium scale enterprises in which Japan has a comparative advantage.

(1) Financial Support for Setting Up Small-Scale Manufactures

Domestic industry in Pakistan is comprised of a large number of small and medium scale manufactures, who are vigorous and dynamic in their activities and now absorb 85% of the workforce in the industrial sector. They have developed a

valuable export business, enjoying the so called agglomeration effects in technology, management and marketing. Their accessibility to the world's advanced technologies is nevertheless weak. Also, in Pakistan, financial priority is usually given to large manufactures, which results in a shortage of finance for small and medium scale enterprises.

To remove this constraints, financial assistance should be provided to support the setting up of small-scale manufactures who are handicapped with initial capital outlay. Based on the loan finance from Japan, the Government of Pakistan or provincial governments could provide relendings to those manufactures at subsidized interest rates. Although recovery rate from small-scale enterprises is generally conceived to be lower than from larger ones, there is an evidence of high recovery rate achieved at the provincial level based on foreign aid.

(2) Promotion of Technical Assistance

For activating industries in Pakistan, it is important to accelerate the training of engineers and specialists who would be able to play a major role in the industry.

To this end, the current technical training programs undertaken in Japan should be enhanced further. The programs should include management of small-scale enterprises, quality control, and industrial standardization in addition to technical training. It is expected that on the job training at Japanese host companies should be an integrated part of the training programs by which the trainees would

have better understanding on the Japanese way of management. Development study would be also helpful in finding promising schemes for future internal and external investment, which would offer an incentive leading to direct investments from the Japanese private sector.

(3) Technical Guidance and Material Support to Technical Centers for Small and Medium-Scale Enterprises

Human resource development is one of the most significant basic needs in the industrial sector. There are vocational training centers in industrial estates which were built for small-scale manufactures in 1960.

These technical centers play an important role in introducing and extending updated manufacturing machines from abroad. The centers have an intermediate function to apply advanced technologies to actual production activities in Pakistan. They also play a major role in education, training and technical guidance services.

There are various promising areas for Japan's future assistance including electronics, tool manufacturing, and gem polishing. Technical assistance for modernization and functional strengthening of the centers should be favorably considered in order to widely spread the effects of assistance.

(4) Pollution Control

Along with industrial development, river water contamination can be anticipated due to the drain of wastes from factories. It

is necessary to prepare a comprehensive plan for pollution control when improving the industrial estates.

[2-2] Increasing Agricultural Productivity and Diversification

The average annual growth rate of the agricultural sector in Pakistan was 3.7% between 1960 and 1988. This is a fairly high rate at historical standard. Extremely high irrigation ratio, introduction of HYV, price policy, etc. are the major explanatory factors. Nevertheless, this rate is not high enough to absorb incremental labour force in the future. What is needed in this situation is to raise land productivity and to diversify agriculture. This requires the improvements in managerial capacity at farm level.

(1) Improvement of Land Productivity

It is necessary to promote research and development at farm level with respect to location specific technologies, including cultural husbandry and farm management. In this regard, priority has to be given to agricultural extension, education and training, in particular, middle-level agricultural education and training, and fostering of agricultural extension workers and their assistants. For improving land productivity, effective use of fertilizers and agricultural chemicals and seed multiplication of high-yielding varieties are required. For procurement of necessary agricultural inputs, financial support has to be extended to small and middle-sized farm households. It may be worthwhile in examining the feasibility of two-step loan assistance in this respect.

(2) Diversification of Agricultural Production

In view of current agricultural production, it would be advisable to promote the production of high value-added products by enhancing horticultural cultivation of vegetables, fruits and other cash crops and by processing agro-products, as well as the production of conventional crops such as wheat, rice and cotton.

Also important is livestock production, which contributed about 30% of the agricultural GDP in 1988. The country is already self-sufficient in beef, chicken, mutton and other meats and 96% in cow milk at the present level of consumption. Pakistan has rich livestock resources such as water buffaloes, cows, sheep and goats, and it has a large development potential.

However, problems lie in its low productivity, which is attributed to extensive breeding, unstable supply of good feed, lack of precautions against livestock ailments and insufficient improvement of breeds. Japan would be able to extend requisite assistance in the area of livestock hygiene and artificial fertilization. It is also feasible to provide assistance in areas such as fish farming for shrimp, trout, carp, etc. which has great development potential, and forestry research and development especially on afforestation aiming at environmental conservation and fuel wood supply.

[2-3] Development of Economic Infrastructure

[2-3-1] Development of Energy Sources

In Pakistan, great efforts are being made to develop indigenous energy sources through exploitation of oil and natural gas resources. In the middle-and long-term, however, these deposits will decline, increasing the gap between energy supply and demand; this will eventually increase the dependency on energy imports.

To secure stable supply of energy in Pakistan, it is essential to correct the present excessive use of oil and natural gas and to promote diversification of energy sources. Coal mining especially should be fully utilized for power development. It is important to improve the efficiency of transmission and distribution in the short-term and to expand hydropower generation in the long-term.

(1) Research and Survey of the Development and Use of Coal

In a situation where the gap between energy demand and supply increases and consequently oil import increases, the development of Pakistan's untapped coal resources may be considered. Despite discovery of enormous coal deposits, actions toward its exploitation are slow. This is an area of new development for which assistance from abroad is expected.

Analytical research and studies on coal are required both toward the search for new deposits and for detailed investigation of coal deposits already identified, as in Lakhra.

It is very important to pursue basic studies and relevant data accumulation for the development of coal utilization

technology best suited to the new coal deposits found in Pakistan. In this regard, Japan can support these activities.

(2) Survey and Study toward Coal Thermal Power Development

A thermal power development project with two 50Mw units of a coal/water boiler type is being undertaken with assistance from China. The results of this pilot scheme are worth scrutiny.

In the future, it will be necessary to develop new techniques for coal mining, transportation, optimum usage for power generation and emission control which are appropriate to the properties of the coal and to the site conditions.

To this end, Japan must actively carry out surveys and research in the field. Japan could contribute in this area with its experience in burning low grade coal, emission control, etc.

(3) Improvement of the Efficiency of Transmission and Distribution

Electricity consumption in Pakistan for the past 20 years has increased at an average annual growth rate of 10%. Recently, household electricity consumption has increased by 15 - 20% /year in large urban areas.

Pakistan's total power generation capacity was 7,160 Mw at the end of 1989. The 7th Five Year Plan envisages the development of 6,500Mw. The total plant installed capacity is expected to reach 13,100 Mw by the end of 1993.

However, because of rapid power development, technological delays have occurred in the operation and maintenance of the transmission and distribution systems; transmission and distribution losses are large in this country. To mitigate the long-distance transmission loss, trunk transmission lines are being up-graded to step up the transmission voltage from 250kV to 500kV. Peripheral distribution systems are also obsolete and cause large distribution losses. To extend Japan's technical and financial assistance toward the improvement of the efficiency of transmission and distribution would be helpful.

(4) Coal Briquets for Household Use

Non-commercial energy sources, such as cow dung, wood, bagasse, cotton stems, etc., have been traditionally used as household energy sources. They are estimated to provide from 30% to 35% of the national total energy requirements. To shift to commercial energy sources, coal briquets are planned to be used in households. This plan would conserve forestry resources and curtail the import of Kerosene oil. A pilot project, however, has been suspended for shortage of development funds.

(5) Environmental Conservation

Conservation of the environment must be considered when developing new sources of energy. Sulphur oxides and nitrogen oxides emission generated by thermal power stations are the main causes of acid rain and other contamination.

Japan's experience in this area could be useful in future assistance.

[2-3-2] Infrastructural Renovation of Transportation and Telecommunications

(1) Railways

Railway transport is the most economical means of transportation next to inland navigation in terms of per-unit energy consumption. In Pakistan, the National Railway's network constitutes the nation's main artery connecting the port and industrial area in the south with the industrial and rural area in the north. It is the best means for long-distance inter-urban transportation.

The National Railway, however, has had problems in its management and financial condition. Railway facilities and equipment have become obsolete as a result of insufficient maintenance over a long period of time. Consequently, passenger and cargo services have become inactive; the share of national overland transportation has diminished from 75% 25 years ago to 25% at present. Today, road transport has become dominant in Pakistan.

With a diminishing scope of activities, the National Railway is now transporting only such basic commodities as fertilizer and grain, and much less private cargo.

Therefore, in the future, Japan's assistance to the transportation sector should give priority to the railway.

To restore and regain its primary functions in the nation's overland transportation, the National Railway has to take such necessary measures as rehabilitation and updating its railway tracks and other related facilities; it must construct double-tracks in strategic railway sections; it must introduce new locomotives, coaches and cargo wagons; it must repair locomotives; it must renovate workshops and repair shops; it must improve logistic services, including the supply of repair materials, etc.

Japan's technical cooperation should aim at improving passenger and cargo services by introducing the latest railway technology, for example: multi-access seat reservation systems, passenger information service systems, centralized traffic control systems and so on.

Since large-scale coal exploitation is about to start in this country, a system of coal transport has to be built up. It would be a good idea to examine the feasibility of improving the container collection system by the third sector.

For all of the above-mentioned improvements, it is essential to renovate management.

(2) Roads and Highways

In Pakistan, road traffic has been rapidly increasing every year. Priority must be given to large-scale restoration and periodical maintenance of arterial highways; feeder roads in rural areas where highway construction is not envisaged must also be developed.

The Indus Highway Construction Project was begun and has progressed with assistance from Japan. Japan's continuous assistance to the project will have a great impact on the continuity of the project and the maximization of development effects.

(3) Ports and Marine Transport

The construction of Karachi and Qasim ports has been almost completed, except for the wharves for container cargo and bulk cargo such as grain, fertilizer, fossil fuel, iron ore and coal. Upon their completion, these ports should sustain Pakistan's capability to meet increasing cargo traffic in the coming 10 years.

The funding arrangements for the said port facilities have been started by the World Bank, the Asian Development Bank and private financiers.

Therefore, Japan's development assistance, with emphasis on technical cooperation, should be provided to the non-profitable public sector such as navigational aid systems, regional port development and so on.

(4) Telecommunications

Pakistan's telecommunications are maintained by the Telegraph and Telephone Bureau (T & T), an agency under the Ministry of Transportation and Communications.

The parties concerned have thoroughly deliberated a proposal for reorganization of T & T as an autonomous corporation; it has now developed into a political issue.

Improvement in T & T amounts to restoration and updating of the existing facilities, improved efficiency, cultivation of talent, etc. These all will accompany the said organization of T & T.

In recent years, assistance has mainly been concentrated on the enlargement of trunk telecommunication networks, extension of public telephone systems in rural areas, digitalization of telephone exchanges, and improvement and enlargement of telephone systems in large cities such as Karachi, Lahore, Rawalpindi, Haiderabad, Peshawar. The modernization of telecommunication technology has been in progress along with development. To extend the telephone networks in rural areas, a cable system has been adopted for users in the vicinities of switching station, while UHF and VHF have been adopted for those in the most distant areas. They are yet in the stage of trial and error. Further studies will be required for technological evaluation and selection of the system best suited to geographical features and social surroundings of Pakistan.

Japan has so far exerted its main efforts in technical assistance. Japan's assistance in the future should be concentrated on research activities which will improve user services to best meet needs, along with grant aid for transfer of technology related to operation and maintenance of

telecommunication equipment and facilities, reinforcement of CTRL (Central Telecommunication Research Laboratory) and so on.

[3] Environmental Conservation for Sustainable Development

(1) Diminishing Forest Area

Pakistan's total forest area in 1986/87 was 3,060 thousand hectares, accounting for about 4% of the national territory. Demand for wood and fuel wood has constantly increased. Though afforestation is encouraged, forest destruction has continued to expand.

Besides man-made, geographic and climatic causes, the decrease in forest areas has brought about various disasters such as land erosion, floods and so on. Over-grazing in semi-dry and dry areas (by cattle, sheep and camels) has been another cause of land erosion; it has resulted in decreased land productivity and expanded desertification.

(2) Increasing Water Pollution

With a rapid increase in population, large-scale urban and industrial development has taken place. Environmental contamination in Karachi, Lahore and other cities has become more widespread and serious.

Surface water has been contaminated by heavy metals (cadmium, chromium, mercury, etc.), other toxic substances contained in industrial wastes, and also by municipal wastes, organic substances and coliformes contained in nightsoils and so forth. Groundwater contamination at factory sites is a problem as well.

Industrial wastes discharged from industrial estates in Karachi and its surrounding areas and oil residues and sludges dumped from vessels are polluting the sea as well.

(3) Air Pollution Control and Urban Waste Management

Air pollution control and solid waste disposal are among Pakistan's most serious problems. Other problems include emissions from factories and exhaust from vehicles and motorcycles. The question of domestic waste disposal will become increasingly important due to the rapid increase of the population. Waste thrown in the streets and into canals has caused water contamination and hygienic problems.

(4) Organizational Reinforcement and Fostering of Professional Strength

In order to sustain the nation's development, the Pakistan Government has steadily reinforced its environment policy through legislative and executive measures. The government hopes to meet urgent requirements for environmental conservation.

To this end, emphasis should be placed on the fostering of specialists and engineers specializing in environmental conservation, setting-up of monitoring systems, research and development of environmental conservation technology and so on.

In promoting development, every stage of plan formulation and implementation requires careful consideration so as to avoid or minimize eventual development impact on the environment.

Particular attention should be paid to environmental impact assessment at the initial stage of development planning.

Japan has experiences as well as capability in policy making, its implementation and technological development at national, regional and private levels: these could largely contribute to environmental conservation in Pakistan.

Japan's technical and financial assistance in the future should be directed towards the training of environmental specialists and engineers, the set-up and operation of comprehensive monitoring systems, pollution control and so on.

[4] Expansion of Cultural Cooperation

Pakistan remains one of the nations that Japanese are poorly acquainted with. Likewise Japan may not be understood among Pakistanis to the extent desirable.

It becomes more necessary, therefore, to promote culture-related cooperation between the two countries, for which ODA program is one of the effective means. This will strengthen the friendship which has been fostered since the establishment of diplomatic relations between the two countries in 1952.

(1) Assistance in Cultural Promotion

For a sincere and long-lasting friendship between the two countries, it is very important to support such programs as studies on the cultural heritage of Pakistan, research/inventory of folklore still alive in the people's lives and

preservation/promotion of traditional and indigenous cultures rooted in local communities, especially in rural areas.

(2) Promotion of Cultural Exchange

It is equally important to increase the opportunities to exchange socio-cultural information. This should cover not only limited cultural items but also broad fields of economy, technology, etc., in order to meet both countries' demands in these fields.

Mutual visits by people from all sectors of both countries (in particular the younger generation) are essential. They should be made on a large scale and over the relatively long term so that those people can learn about each others' society and culture through direct contact. In addition, we should continue to promote such past mutual programs as lectures, joint study meetings/symposiums, public performances, seminars and demonstrations, displays and exhibitions by the short- or middle-term visits of researchers, artists and technicians, as well as regular exchange/publication/distribution of general and specialized books/pamphlets, through specific research institutes.

(3) Assistance in Cultural Assets Protection

We should increase assistance for preserving and rehabilitating various world-famous Pakistani ruins, including Mohendojaro, Gandhara and Islamic architecture and gardens, and physical cultural assets (relics, works of art, ancient manuscripts, etc.) kept in museums or institutes. The

assistance should include technical and managerial skills for protection, rehabilitation, display and safe storage of cultural assets, which Japan has fostered through its own experiences.

3. Required Consideration in Implementing Development Assistance

(1) In providing Japan's development assistance to Pakistan, we must pay attention to constraints related to aid absorbing capacity as well as administrative problems in Pakistan.

① Difficulties in project formation with multi-disciplinary knowledge; these may be due to a limited capacity for project design and coordination.

② The lengthy decision making procedures; a long time is required for the submission of requests for project even after implementing design has been completed.

③ Great difficulty in modifying project elements after making initial decisions in ② above. This makes it difficult to make adjustments, when the donor country judges that some project components should be modified in order to ensure better achievement of the project objectives.

If any necessity for such changes arises, the government of Pakistan must repeat the same time-consuming procedure for project appraisal and decision-making.

④ It takes long time before necessary decisions and approvals from higher governmental agencies are made in the project implementation stage.

- ⑤ Limitation of development budgets, which makes it difficult to allocate local and recurrent costs necessary for projects.

While the government of Pakistan must try to eliminate these constraints to smoothly implement assistance programs, Japan also has to take the following countermeasures to help remove those factors.

Support for increasing efficiency of the Pakistani institutional capacity to receive the assistance:

- Sending development experts (advisors) to the Economic Administrative Department (EAD)
- Cooperation from the beginning of the project formation stage (enhancement of mutual discussion on policies, and project formulation studies)
- Increase in the number of development surveys
- Provision of information on Japan's assistance programs to Pakistani Government officials (information, materials, seminars, official invitation to Japan, etc.)

Coping with the shortage of local budgets:

- Effective utilization of the existing facilities/institutions (putting high priority on projects for rehabilitation or renovation)
- Full use of the pro-rated local cost financing criteria for loan assistance

- Pooling some money at the JICA overseas office to support the project activities financed by Japan's assistance (to provide in place of money locally purchased goods which are needed for the activities but can not be financed by Pakistan at an early stage)
- Effective application of small-scale grant assistance

(2) In Pakistan, when foreign assistance funds are extended for ordinary projects, the Government of Pakistan often re-lends the money to the local executing agencies. (Although the Japanese Government has recently provided 2.5% annual interest rate concessional loans, the interest rate on EAD's loans to local executing agencies has been lent at 14%; this can be reduced to 11% in case of public projects, with consideration on the foreign exchange risk at the repayment time. With grant aid, too, EAD sometimes treats the funds as loans and imposes about 11% on the executing agencies, when the projects are expected to generate some profit.)

Japan should be well informed of these interest rates management and the internal loan system, and should have discussions with the Government of Pakistan on such matters.

4. Recommendations Concerning Japan's Aid System

(1) Promotion of Policy Dialogue

Japan's bilateral assistance to Pakistan has now become the world largest in monetary terms. It is important to have closer and more continuous policy dialogue with the Government of Pakistan in order to offer the most appropriate support to development programs in Pakistan. This can be promoted in practice both by increasing opportunities for mutual discussion on policies and by regular country studies for development assistance which will provide baselines for dialogue.

Japan has had annual meetings on its assistance programs with the Government of Pakistan. For effective exchange of opinions, it is necessary to receive in advance coordinated proposals from the Pakistani assistance-coordinating agencies and, at the same time, to obtain participation of as many representatives from the agencies concerned as possible. Also, for proper formulation of individual projects, it is necessary to create opportunities for discussion with the Pakistan side including the project executing agencies at early stages.

(2) Promotion of Communications with Other Aid Organizations

International finance organizations such as the World Bank and the Asian Development Bank, and Western bilateral aid agencies (who have plenty of experience accumulated over a long time in assistance to Pakistan), recently pay great attention to Japan's aid programs. Japan should actively exchange ideas with these organizations to make efficient use of

the limited aid resources (human, physical and financial); this will avoid redundancy or competition between multiple aid programs; in this way Japan's assistance to Pakistan will be more effective and appropriate to actual needs. Also, Japan needs to examine any possibilities for mutually complementary and harmonious aid approaches (diversification of aid program patterns) which make good use of what each aid organization can contribute best.

To promote the regular exchange of ideas and information, and mutual understanding, not only individual exchanges of views with each aid agency (and attendance at the annual consortium at Paris), but also the Japanese embassy officials or staff of JICA/OECF overseas offices should positively participate in local consultative group (CG) meetings with staffs of other aid agencies at Pakistan offices.

(3) Participation of Researchers and Training of Experts who have Expertise in the Region.

Any assistance fitted into a country's development program can be effectively implemented when its regional situation, in terms of politics, economy, society and culture, has been well understood. This is essential both to intensify the country programming approach, and to encourage the country profile research. This requires further training of regional experts in the aid agencies, such as JICA and OECF, and positive and comprehensive participation of researchers/experts from the universities or research institutes, in developing aid policies or programs.

Moreover, professional suggestions from researchers concerned in the region, in addition to the sectoral experts' should be referred to in project formulation process; this should be done from an early stage to take into account the present political, economic and socio-cultural aspects of the recipient nations, for example, Pakistan, so that the aid activities can be meaningful and appropriate.

(4) Support to the Social Sector

Pakistan has been making steady efforts toward economic stabilization by means of a structural adjustment program under the direction of the World Bank/IMF; this program aims to solve the problem of "the twin deficits" both in public finance and in current account. At present, Pakistan is revising its 7th National Development Plan in accordance with the IMF conditionality; this should limit Government expenditures by cutting its development expenditure to reduce budget deficit. Therefore, it is feared that this structural adjustment program will have a negative impact on the social sector development, including public health and education.

Similar to other foreign aid agencies, Japan has given high priority to assistance to economic infrastructure and production sector. However, in the future, Japan should greatly increase the ratio of its grant aid as well as technical cooperation, especially focusing on the social sector, without affecting full budget support for endeavors by the Government of Pakistan in the above-mentioned structural adjustment program.

(5) Appropriate Financial Assistance for Local Cost

In Japan's assistance, local costs have been properly covered by pro-rated local-cost financing criteria in loans and partial funding management for preparation of basic infrastructure in technical cooperation, etc. For more efficient grant aid and technical cooperation in the future, more flexible measures should be taken based on the economic/financial conditions of each developing country.

For such a developing country as Pakistan with a low income economy and a large deficit in public finance, the increase of grant element in Japan's aid is necessary. At the same time, more flexible financial assistance for maintenance and aftercare activities should also be considered to a certain extent so as not to discourage the recipient country's efforts for self-reliance.

(6) Improvement of the Systems of Japan's Assistance

The period of time framework of Japan's assistance is sometimes restricted, according to the budget/audit system of Japan. Therefore, careful consideration must be given to allow the assisted country to have sufficient time for preparation to receive the assistance (including local budget compilation) and for implementing projects. Re-examination of the aid system is expected to extend a duration for disbursing assistance funds, as is allowed for loan assistance.

Japan is presently evaluating its past and on-going assistance programs. Based on this evaluation, further consideration will

be given to future assistance programs to enhance project sustainability, even after the termination of Japan's assistance. Local purchases of project equipment should be promoted if quality control and aftercare systems for such local commodities are guaranteed to be trouble-free in their usage and maintenance.

(7) Improvement of Operational Structure for Japan's Assistance

Further qualitative and quantitative improvement of Japanese ODA is desired at home and abroad. The first action to be taken is to reinforce the operational structure by increasing the working staff of the Japanese aid agencies (the number of staff engaged in ODA in the Ministry of Foreign Affairs, JICA and OECF, is about 1,600. This figure is less than a third of USAID staff, which accounts for approximately 4,000 people, with almost the same scale of assistance as Japanese ODA). Second, in order to effectively implement Japan's assistance program, the executing agencies must cooperate with other agencies concerned in promotion of policy dialogue with the recipient government, comprehensive study/analysis of the targetted regions, management of projects from projects finding and implementation to post-evaluation and follow-up, and other proper supports for effective assistance. For this purpose, in addition to full staffing, the operational structure of the executing agencies must be improved. In particular, the functions of overseas offices need to be considerably enhanced in terms of manpower

and authority, to provide better support, based on discussions with the recipient countries.

Another important task for the future is training/securing of experts for international cooperation programs; this will be realized by reinforcing the training institutions and supporting the experts to work on a permanent and stable basis.

International cooperation activities of Japan, including the training program and the youth invitation program, have been recently backed up with comprehensive understanding and support by the domestic municipal governments as well as by citizens of goodwill. Obtaining more public understanding and improving Japan's social environment for international exchange will enhance this orientation.

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