# Supporting Rural Infrastructure Development and Energy Conservation

- Contributing Directly and Indirectly to Poverty Alleviation through Rural and Agricultural Development-

OECF (the Overseas Economic Cooperation Fund, Japan: President, Chairman of the Board: Mr. Kyosuke Shinozawa), has committed loans to the People's Republic of Bangladesh totaling up to 16.412 billion yen for three (3) loan projects including "Northern Rural Infrastructure Development Project" as the 24th ODA Loan Package to the country and conclued the loan agreements on July 15, 1999.

The loan agreements were signed at OECF head office in Tokyo by Mr. Kyosuke Shinozawa, President and Chairman of the Board of OECF and H.E. Hamil Majid, Ambassador Extraordinary and Plenipotentiary of the People's Republic of Bangladesh to Japan.

ODA loans to People's Republic of Bangladesh commenced in 1974, and as a result of the new loan agreement, the cumulative total of ODA loan commitments to Bangladesh now stands at 532.778 billion yen, covering 65 projects.

The description of loans and the projects are as follows.

# 1. Amounts, Terms and Conditions

Project Name	Amount (Million Yen)	Interest Rate (% ,p.a.)		Repayment Period /Grace Period (years)		Tying Status	
		Goods and Services	Consulting Services	Goods and Services	Consulting Services	Goods and Services	Consulting Services
Northern Rural Infrastructure Development Project	6,593	1.0 0.75*	0.75*	30 / 10 40/10	40/10	General Untied General Untied	General Untied
Power Distribution and Efficiency Enhancement Project	4,376	1.0	1.0	30 / 10	30 / 10	General Untied	General Untied
Energy Saving, Environmental Protection and Improvement of On-Stream Factor of Ghorasal Urea Fertilizer Factory Project	5,443	0.75**	-	40/10	-	General Untied	-
Total 3 projects	16,412						

\* Preference interest rate for supporting human resources development project

\*\* Preference interest rate for special environmental project

Supporting human resources development project for Northern Rural Infrastructure Development is applied for portion of Rural Development Technology Center.

#### 2. Characteristics of the Loans

While its annual economic growth rate has been 4-5% in recent years, Bangladesh with a per-capita GDP of about US\$250 is classified as a least less developed country (LLDC) and the needs are still strong for economic and social infrastructure development. OECF has provided ODA loans to sectors of high priority in terms of development plan of the country, including electric power, gas, mining and manufacturing, transportation, telecommunications and rural development. The new ODA loans will cover three sectors: rural development, electric power, and fertilizer industry, aiming at the balanced development of the economy and the society of Bangladesh through rural infrastructure development as well as efficiency improvement of existing infrastructures. The rural infrastructure development includes improvement of road networks and markets and promotion of electrification in the rural areas, where approximately 80% of the total population of Bangladesh live. The efficiency improvement will result from enhancing energy efficiency of a time-worn fertilizer factory and from reduction of system loss in power distribution networks.

Distribution of ODA loans by sector (including the new loans)

Sector	No. of loans	Amount (Million yen)	Share in the total (%)
Electric power and gas	15	79,696	15.0
Transportation	8	57,080	10.7
Telecommunications	4	26,294	4.9
Irrigation, flood control, and reclamation	1	339	0.1
Mining and manufacturing	14	91,281	17.1
Social services	3	15,979	3.0
Commodity loans	20	262,110	49.2
Total	65	532,778	100.0

# 3. Project Descriptions

#### (1) Northern Rural Infrastructure Development Project

In Bangladesh, most of the rural population that composes about 80% of the total population are engaged in agriculture, and more than half of them are tenant farmers. Development and poverty alleviation through promotion of agriculture and non-agriculture industries in rural areas is a key to sustaining economic growth of the country. However, a delay in constructing rural infrastructure, including roads and rural markets has been a bottleneck in developing regional economy as well as inter-regional economic exchanges. Placing a high priority on the improvement of rural infrastructure, the Bangladesh government has been developing regions in order.

To support the extension and diffusion of rural infrastructure, the project aims at 13 prefectures in the northern area where the ratio of poverty class is high and development is delayed, focusing on the development of roads (called "Feeder B Roads," connecting rural markets and trunk road networks) in rural areas where inhabitants' needs are strong and the economic return is expected to be high. The present low pavement rate of approx. 23% of Feeder B Roads in the target areas will be improved to approx. 50% as a result of the project.

The proceeds of the loan will be used to five eastern prefectures in the target areas for improvement of road networks, installation of a rural development technology center for improving the technical and maintenance capabilities of executing agencies, procurement of equipment and materials, consulting services (design of the center, assistance in bid documents preparation, supervision of the construction, review of the training schedule, etc.) and rehabilitation of roads flooded in the summer of 1998.

The project is co-financed by the Asian Development Bank (ADB), the Swedish International Development Agency (SIDA) and the International Fund of Agricultural Development (IFAD), which will assist improvement of roads, rural markets and wharfs as well as organizational capacity enhancement in the western part of target areas.

The executing agency is the Local Government Engineering Department (LGED) (Address: LGED Bhaban, Agargaon, Sher-E-Bangla Nagar, Dhaka-1207, Bangladesh, TEL: 880-2-815605, FAX: 880-2-815606).

### (2) Power Distribution and Efficiency Enhancement Project

With the electrification rate of approx. 15% (on household basis), which is low compared with neighboring countries, the promotion of electrification in rural areas is high on the agenda of Bangladesh. To promote rural electrification, the country established the Rural Electrification Board (REB) to be in charge of power distribution in rural areas in 1977. Through establishing rural electrification cooperatives in each region, REB has promoted electrification efficiently and effectively. On the other hand, in urban areas where electrification rate is much higher but the system loss rate reaches as high as 35% (gross loss rate including loss in power plants), an urgent need is to increase effective use of electric power by improving efficiency of existing facilities, through optimization of distribution systems and prevention of such corrupt practices as power theft and unfair meter reading.

This project is formed with two components: the rural electrification project and the system loss reduction pilot scheme in urban distribution networks. The rural electrification project will support the electrification of a total of 170,000 households by developing power distribution networks in two newly established rural electrification cooperatives. In the system loss reduction pilot scheme specific distribution networks are selected in six jurisdictions of the Bangladesh Power Development Board and the Dhaka Electric Supply Authority that are in charge of distribution in urban areas. The loss will be reduced on the selected networks through rehabilitation meter installation, measurement, among others, and based on the results of a project evaluation, system loss reduction plans for other urban areas will be proposed.

The proceeds of the loan will be used for procurement of equipment and materials for both the rural electrification project and the system loss reduction pilot scheme, construction works and consulting services (detailed design, assistance in bid documents preparation, supervision of construction, project evaluation, etc.) for the pilot scheme.

The executing agencies are the Rural Electrification Board (REB) (Address: Joarshahara, Khilkhet, Dhaka-1229, TEL: 880-2-896424, Fax: 880-2-896400); the Bangladesh Power Development Board (BPDB) (Address: WAPDA Building, Motijheel C/A, Dhaka-1000, TEL: 880-2-9551128, FAX: 880-2-9561895); and the Dhaka Electric Supply Authority (DESA) (Address: 1 No. Abdul Gani Road, Dhaka-1000, TEL: 880-2-9567256, FAX: 880-2-9563520).

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# (3) Energy Saving, Environmental Protection and Improvement of On-Stream Factor of Ghorasal Urea Fertilizer Factory project

With a high population density and with about a third of its land being inundated during the rainy season every year, Bangladesh scarcely has extra space for extending cultivation. Accordingly it is indispensable to increase food production by improving agricultural productivity, using chemical fertilizers. Urea fertilizer among others plays an important role in that it is produced by effective use of natural gas, which is available in abundance in Bangladesh.

The Ghorasal Urea Fertilizer Factory, one of the fertilizer factories under the umbrella of Bangladesh Chemical Industries Corporation (BCIC), started operation in 1970, but due to aging of facilities in recent years, it has problems such as a decrease in production capacity due to a drop in energy efficiency and leakage of high-concentration raw ammonium from the time-worn systems. In addition, under an unfavorable electric power supply condition in Bangladesh, it is not possible to secure stable supply of electric power and the plant has suffered frequent suspension of operation.

This project aims at improving the energy efficiency, prevention of ammonium leakages and securing stable power supply, and focuses on rehabilitation of the existing plant facilities and installation of a new gas turbine generator.

The proceeds of the loan will be used for procurement of equipment and materials, construction of plant facilities and installation of a gas turbine generator.

The executing agency is the Bangladesh Chemical Industries Corporation (BCIC) (Address: 30-31 Dilkusha Commercial Area, Dhaka-1000, Bangladesh, TEL: 880-2-9564153, FAX: 880-2-9564120).

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