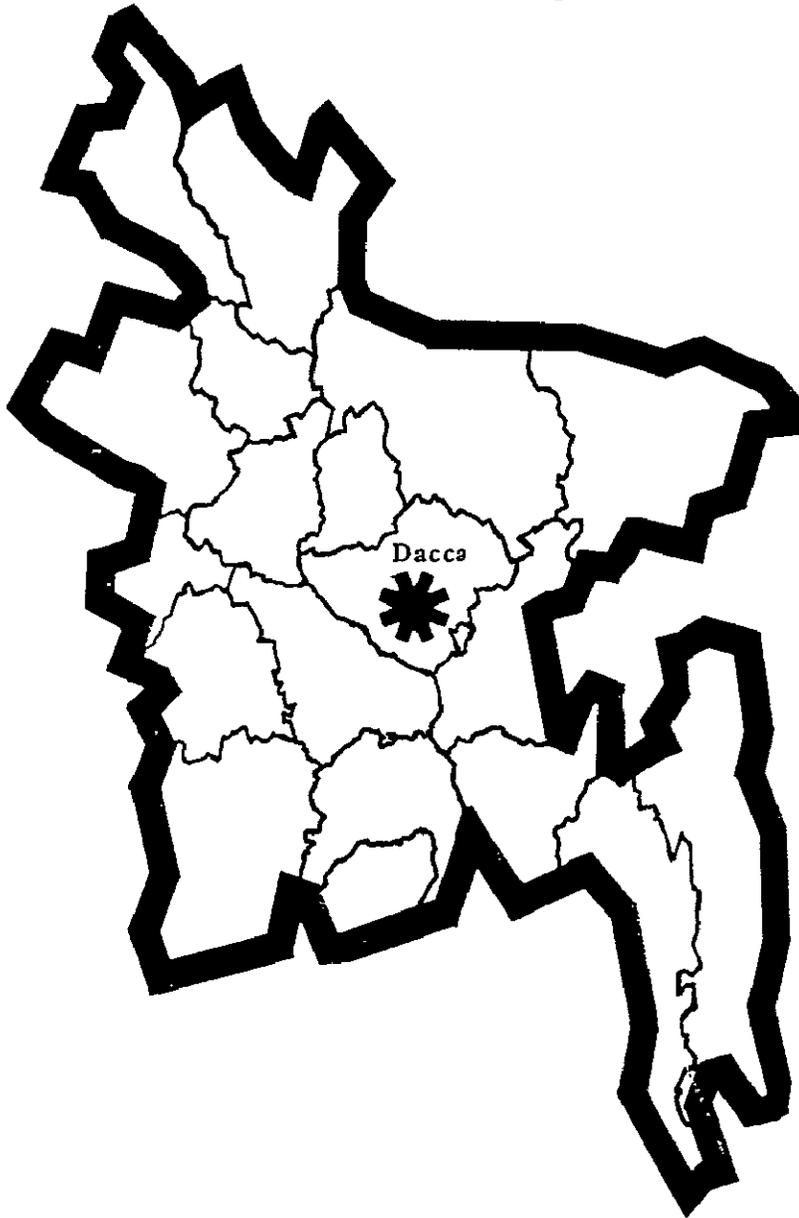


Bangladesh

A Country Profile



June 1979

Office of Foreign Disaster Assistance
Agency for International Development
Washington, D.C. 20523

BANGLADESH: A COUNTRY PROFILE

prepared for

The Office of U. S. Foreign Disaster Assistance
Bureau for Private and Development Cooperation
Agency for International Development
Department of State
Washington, D. C. 20523

by

Evaluation Technologies, Inc.
Arlington, Virginia
under contract AID-otr-C-1553

The profile on Bangladesh is one in a series designed to provide baseline country data in support of the planning, analysis and relief operations of the Office of U. S. Foreign Disaster Assistance (OFDA). Content, scope and sources have evolved over the course of the last three years, and no doubt will continue to do so. The relatively narrow focus is intentional. To avoid redundancy, some topics one might expect to find in a "country profile" are not covered here.

If the information provided can also be useful to others in the disaster assistance and development communities, so much the better. Every effort is made to obtain current, reliable data; unfortunately it is not possible to issue updates as fast as changes would warrant. A cautionary note, therefore, to the reader: statistics are indicators at best, and if names and numbers matter, the bibliography will point to a current source.

We invite your comments and corrections. Address these and other queries to OFDA, AID, as given above.

June 1979

OFDA COUNTRY PROFILES: APRIL 1979

AFRICA

Angola**
Cape Verde
Chad
Djibouti
Ethiopia
Madagascar
Mali
Mauritania
Niger*
Sahel Transportation Survey
Senegal
Somalia
Upper Volta
Zaire

ASIA

Afghanistan
Bangladesh
Burma
India
Indonesia
Malaysia
Nepal
Pakistan
Philippines

CARIBBEAN

CARICOM Regional Profile
Dominican Republic
Haiti

LATIN AMERICA

Bolivia
Brazil
Chile
Ecuador
Guatemala
Honduras
Nicaragua
Peru

NEAR EAST

Lebanon**
Turkey

SOUTH PACIFIC

Fiji
Tonga
Western Samoa

* in preparation

** out of print

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Geographic Codes

AID Standard	388
NAC Code Book	513
AID Region	NESA/SA
State Region	NEA/PAB

Country Names

Legal	Peoples Republic of Bangladesh
Local	Bangladesh
Short	Bangladesh

Official Holidays

Muharram.....	January 12
Martyr's Day and National Mourning Day.....	February 21
Eid-e-Milad-un-nabi.....	March *
Independence Day.....	March 26
Bengali New Year.....	April 14
Buddha Purnima.....	May *
Eid-ul-Fifr (end of Ramadan).....	September *
Shab-i-Bharat.....	September *
Jamat-ul-wida.....	September - October *
Durga Puja.....	October *
Eid-ul-Azha.....	November *
National Day.....	December 16
Christmas Day.....	December 25

* Religious holidays subject to sighting of moon.

Currency

100 paisa = 1 taka
15.475 taka = US \$1.00 (June 1979)

Time Zones

EST + 11; GMT + 6

Host Mission and Staff in US

Embassy: 421 Massachusetts Ave. N.W.
Washington, D.C. 20007

Tel: 337-6644 to 337-6646

Staff: Ambassador.....Tabarak Husain
Minister.....Humayun Kabir
Counselor (Political).....Hosne Ara Karim
First Secretary.....Zraus Shams Choudhury
Counselor (Press & Education).....Mahbubul Alam
Minister (Economic).....Abidur Rahman
First Secretary (Finance).....S.A.M. Iqbal
First Secretary (Economic).....A.K.M. Rashidoddin

US Mission to Bangladesh and Staff

Embassy: Dacca
Adamjee Court Bldg., (5th floor)
Montijheel Commercial Area
GPO Box 323, Ramna

Tel: 244-220 to 244-229

Staff: AMB.....David T. Schneider
DCM.....Alf E. Bergesen
ECO/COM.....Philip C. Wilcox
POL.....Carl Taylor Jr.
CON.....Janet A. Sanderson
ADM.....Grafton H. Jenkins
RSO.....Brad L. Updegrove
AGR.....Oldrich Fejfar
AID.....Joseph S. Toner
PAO.....James L. Meyer

US Presence

U.S. Citizens	
	1975
Official Total*	
US Govt PSNL (Non DOD)	68 + 6 USMC
Military Attaches, Advisory Group and other DOD Elements in Dip. Missions	0
Dependents	75
Est. Private Total	654
Resident Businessmen	101
Students	2
Missionaries/Clergy and Dependents of Above	250

*Includes Tourists

Treaties and Agreements

With US:

Bilateral Agreement for Relief and Rehabilitation
Cholera Research Laboratory Agreement
Economic, Technical and Related Assistance Agreement
OPIC Agreement
Potential Agreements:
 Convention on Avoidance of Double Taxation
 Treaty of Friendship, Commerce and Navigation

With Other Countries:

Agreement on Medical and Technical Training with German
 Democratic Republic
Treaty of Friendship and Cooperation with India
Agreements on Technical and Economic Assistance
 With U.S.S.R.
Indo-Bangladesh Treaty of Friendship, Cooperation
 and Peace

Multilateral Treaties and Membership in International Organizations:

United Nations
Asian Development Bank
British Commonwealth
World Health Organization (WHO)
International Labor Organization (ILO)
Universal Postal Union (UPU)
UN Conference on Trade and Development (UNCTAD)
International Bank for Reconstruction and Development (IBRD)
International Monetary Fund (IMF)
International Development Association (IDA)
Geneva Conventions for the Protection of War Victims
Convention Relative to the Treatment of Prisoners of War
Convention for the Amelioration of the Condition of the Wounded and Sick of Armed Forces in the Field (Red Cross), at Sea (RED CROSS)
Convention Relative to the Protection of Civilian Persons in Time of War
Chicago Convention on International Civil Aviation
General Agreement on Tariffs and Trade (GATT)
IMF Agreement
IBRD Agreement

Trade:

Agricultural Commodities Agreement
General Agreement on Tariffs and Trade (GATT)
Trade Agreements with USSR, Several Eastern European Countries

Travel and Visa Information

Passport required; visa required by nationals of all countries except the Federal Republic of Germany, Ireland, Norway, Sweden, the United Kingdom and Yugoslavia.

Health

International health certificates required for smallpox and cholera. Yellow fever certificate required for arrivals from endemic areas.

Ethnic and Sociocultural Groups

98% are Bengalis; 350,000 non-Bengali tribal people in the Chittagong Hill Tracts related more closely to Burmese; Bihari Minority in some communities; 1% Indian.

In coastal areas, Arab, Portuguese, and Dutch settlers have adopted Bengali life style.

Languages

Official language Bengali; English and Urdu-Hindu (largely used by Indian immigrants) most significant minor languages. English widely used in urban centers and among educated groups. Non-Bengali languages still important in the Chittagong Hills.

Education

20% of population literate. Education not compulsory, but government provides free primary schooling for 5 years. Some plans for compulsory education in programs designed to meet manpower needs. Most importance given to primary, technical, and vocational education.

Religions

85% of population are Muslims, the majority belonging to the Sunni sect. About 14% are Hindu: 4% are caste Hindus, 10% are scheduled caste. Small numbers (.3%) of Christians, mainly Roman Catholic, and Buddhists (400,000) primarily among tribal people. Some forms of animism are practiced.

National Government

New constitution (January 1975) gave country presidential system. President directly elected and not responsible to 300-seat legislature; formerly had right to proclaim country a one-party state and dismiss any legislator who refused to join.

Numerous military coups since 1975. In April 1977, Maj. Gen. Ziaur Rahman took power; first direct presidential elections held in June 1978 consolidated "General Zias" position. Gradual return to democracy announced. In February 1979, parliamentary elections gave two-thirds of the seats to Nationalist party headed by President Ziaur. Martial law lifted following convening of new parliament in March 1979.

Judicial

Civil law based on English common law although religious differences govern in some areas. Criminal law also based on English system. Government may however, proclaim a state of emergency and detain citizens without trial. Highest court has both original and appellate jurisdiction. Judges appointed by legislative assembly.

April 1977 constitutional amendment established a Supreme Judicial Council to prescribe a code of conduct for judges and advise the President.

Regional Organization

Administrative units in order of descending geographic size:

Divisions - 4 (Dacca, Rajshahi, Khulna, Chittagong)
Districts - 19
Subdivisions - 62
Thanas (police stations) - 416
Unions - 4,041
Villages - 71,291

Chief local government administrator is deputy commissioner or district magistrate (career civil servants) responsible to the divisional commissioner and central government.

Key Leaders

As of June 1979

President.....Rahman, Ziaur, Maj. Gen.
Vice President.....Sattar, Abdus, Justice
Prime Minister.....Rahman, Shaha Azizur
Senior Dep. Prime Minister.....Choudhury, A.Q.M. Badrud-
doza, Dr.
Dep. Prime Minister.....Ahmed, Mouded
Min. of Agriculture & Forests.....Islam, Nural, Maj. Gen.
(Gen.)
Min. of Cabinet Division.....Rahman, Ziaur, Maj. Gen.
Min. of Civil Aviation & Tourism.....Matin, M.A. Dr.
Min. of Commerce.....Rahman, Mohammad Saifur
Min. of Defense.....Rahman, Ziaur, Maj. Gen.
Min. of Education.....Rahman, Shah Azizur
Min. of Establishment Division.....Huq, M. Majidul, Maj. Gen.
(Ret.)
Min. of Finance.....Huda, Mirza Nural
Min. of Fisheries & Livestock.....Rahman, K.M. Obaidur
Min. of Food.....Momen Khan, Abdul
Min. of Foreign Affairs.....Huq, Mohammad Shamsul
Min. of Health & Population.....Choudhury, A.Q.M. Badrud-
doza, Dr.
Min. of Home Affairs.....Rahman, A.S.M. Mustafizur,
Lt. Col. (Ret.)
Min. of Industries.....Ahmad, Jamaluddin
Min. of Information & Broadcasting.....Khan, Habibullah
Min. of Jute.....Biswas, Abdur Rahman
Min. of Land Administration &
Land Reforms.....Haque, M. Abdul
Min. of Law, Parliamentary Affairs
& Justice.....Sattar, Abdus, Justice
Min. of Local Government, Rural
Development & Cooperatives.....Chowdhury, Abdul Halim,
Capt. (Ret.)
Min. of Manpower Development & Social
Welfare.....Bari, S.A.
Min. of Petroleum & Mineral Resources.....Hussain, Akbar, Lt. Col.
(Ret.)
Min. of Planning.....Mahtab, Rasiuddin
Min. of Ports, Shipping & Inland Water
Transport.....Huq, Nurul, Capt. (Ret.)
Min. of Posts, Telegraph & Telephones.....Islam, A.K.M. Moidul
Min. of Power, Flood Control & Water
Resources.....Ahmed, Mouded
Min. of President's Secretariat.....Rahman, Ziaur, Maj. Gen.

Min. of Public Works & Urban
 Development.....Rahman, Abdur
 Min. of Railways, Roads, Highways
 & Road Transport.....Alim, Abdul
 Min. of Relief & Rehabilitation.....Sarkar, Imran Ali
 Min. of Religion, Cultural Affairs
 & Sports.....Chaudhury, Shamsul Huda
 Min. of Science & Technology.....Rahman, Ziaur, Maj. Gen.
 Min. of Textiles.....Ali, Mansur
 Min. of Women's Affairs.....Rahman, Amina, Mrs.
 Min. of Youth Development.....Hamid, Khondakar Abdul
 Min. of State Without Portfolio.....Ahmed, Reazuddin
 Min. of State Without Portfolio.....Baten, Abdul
 Min. of State Without Portfolio.....Chowdhury, Dewan Taimur
 Reza
 Min. of State Without Portfolio.....Ghani, R.A.
 Min. of State Without Portfolio.....Gupta, Sunil Kumar
 Min. of State Without Portfolio.....Halim, Mirza Abdul
 Min. of State Without Portfolio.....Karim, Fazlul
 Min. of State Without Portfolio.....Kashem, Abdul
 Min. of State Without Portfolio.....Khan, Nur Mohammad
 Min. of State Without Portfolio.....Mahmud, Iqbal
 Min. of State Without Portfolio.....Sikdar, Abdul Mannan
 Dep. Min. of State Without Portfolio.....Moinuddin, Arif
 Dep. Min. of State Without Portfolio.....Zafar, Qamrunnahr, Mrs.

Host Disaster Plan

Host Relief Organization

Cyclone preparedness program is joint venture of Bangladesh government and Bangladesh Red Cross Society. Administration by:

A. Policy Committee

Minister for Relief & Rehabilitation	-	Chairman
Minister for L.G.R.D. & Co-Operatives	-	Vice-Chairman
Chairman, Bangladesh Red Cross Society	-	Vice-Chairman
Member, Planning Commission	-	Member
Two Representatives Nominated by the Chairman, Bangladesh Red Cross Society	-	Member
Secretary, Ministry of Relief and Rehabilitation	-	Member-Secretary

B. Implementation Board

Chairman: Secretary, Ministry of Relief and Rehabilitation

Members:

Secretary, Ministry of L.G.R.D. and Co-Operatives
Secretary-General, Bangladesh Red Cross Society
Director, Integrated Rural Development Programme
Representative of Director General of Rural Housing
Representative of Ministry of Finance
Project Co-Ordinator, Cyclone Reconstruction of Planning
Commission
Two Representatives Nominated by the Chairman, Bangladesh
Red Cross Society
Representative of the League of Red Cross Societies, if
available

Member-Secretary

Director, Cyclone Preparedness Program of Bangladesh Red Cross
Society

Disaster Organization

Organization

Headquarters
Policy Committee
Implementation Board

Director

X

X

X

X

Field Inspector (2)
Responsible for Maintenance of Transports &
Equipment at Bases of Barisal & Chittagong

X

X

Thana Development Officer (25)

X

Union Team Leader (195)

X

Unit Team Leader

Ward Team Leader (2043)

Volunteers (20430)

X

Administrative Ministry
(Ministry of Relief
and Rehabilitation)

Action Plan

(Ministry of Relief and Rehabilitation 5/74) - 7 Stages

- 1) Preparatory - pre-cyclone season
- 2) Alert - 24 - 36 hours before storm
- 3) Warning - 12 - 24 hours before storm
- 4) Danger/great danger - 8 - 12 hours before storm
- 5) Reporting on immediate action - 6 hours after disaster
- 6) Action program phase - within 36 hours after storm
- 7) Long-term Co-Operation - within 1 week after storm

Operations

Ministry of Relief and Rehabilitation is permanent relief organization responsible for coordinating relief activities of BDG and of international and voluntary agencies and of bilateral donors. In actuality, Bangladesh Red Cross carries out many warning and relief operations, particularly in case of cyclones. 25 full-time BRC officers stationed in thanas of cyclone belt communicate with Dacca headquarters via single sideband radio network. Officers supervise volunteer warning system, volunteer training, equipment maintenance and offseason BRC development projects. Thanas subdivided into village units of 1 trained and 1 untrained volunteer, responsible for warning, first aid, evacuation, reporting, shelter. Their equipment consists of megaphones, transistor radio, mechanical siren and first aid kit. Volunteer total 20,433 (1975). Central staging area at Barisal has 24 speedboats, 7 jeeps, 7 motorcycles, 2 125-ton lct's (landing craft, tanks). Ministry's operations center connected with district and subdivisional headquarters by single sideband network normally used for administrative purposes; not as effective a warning system as BRC network.

Secretary, Syed Amir Khasru, heads panel of 3 joint secretaries: food for work - Syed Ahmed; storage, movement and transport - A. F. Chowdhury; administration, and relief - Mr. Rashid Ahmed.

Deputy secretaries for relief and rehabilitation (Mr. Azizur Rahman Pathan) and for storage, movement and transport (Mr. Mahmood Hossain) report to joint secretary Chowdhury.

Deputy secretaries for administration, foreign assistance (Mr. Mahmood Hasan), and pre-disaster planning (Mr. A.M.A. Quadir) report to joint secretary Rashid Ahmed.

US Plan

US mission will respond to specific appeals for emergency assistance from BDG. Response based on nature of request and assessment of needs made by MDRT. US team will maintain liaison with other donors and agencies to evaluate situation but will not coordinate activities unless specifically requested by BDG.

Food and local currency financing probably most frequently requested assistance. US will not provide assistance unless specifically requested.

Ambassador is overall director of relief activities. USAID Deputy Director coordinates MDRT activities with those of other mission elements. MDRT, headed by MDRO, consists of officers for: food distribution, medical supplies and service, logistics, shelter and survival supplies, engineering, volag liaison, and administration.

Team responsibilities: receive and analyze BDG requests; perform surveys and assessments of damage and relief requirements relative to BDG requests; provide the Ambassador with recommendations concerning US response. Maintain liaison with BDG agencies, international agencies, other bilateral donors; and volags. Provide OFDA with daily SITREPS; coordinate efforts of US Government agencies in Bangladesh.

Probable TDY Assistance required:

An experienced disaster relief officer;
A Food-For-Peace officer with extensive experience with emergency feeding program;
An epidemiologist
An experienced logistics officer.

Contact List

BDG

Emergency Control Room
2nd Nine Storey Building, 2nd Floor
Telephones: 282777 or 283452

Mr. Syed Amir Khasru, Secretary
2nd Nine Storey Building, 2nd Floor
Office Phone: 282982

A.A. Quadir, Deputy Secretary
In Charge of Cyclone Preparedness Program
2nd Nine Storey Building, 2nd Floor
Office Phone: 280409

Contact List (cont'd)

BRC

Cyclone Preparedness Program Control Room
22/19 Khiwee Rd., Mohammedpur (across from Sher-E-Bangla
Hospital)
Telephone: 312447, 315372

MR. E. Hossain, Cyclone Preparedness Director
22/19 Khiljee Road, Mohammedpur
Office Phone: 315372
[REDACTED]

Justice B.A. Siddiky, Chairman, BDRCS
3/1 Segun Bagicha
Office Phone: 252714
[REDACTED]

Major A.T.M. Ali Hassan Quoreshi (Ret.)
Secretary General, BDRCS
34, Bangabandu Avenue
Office Phone: 242091
[REDACTED]

MDRT

Mission Disaster Relief Officer

John A. Wiess
Jahan House, Banani
Telephone: (0) 256010 (X 204)
[REDACTED]

Alternate Mission Disaster and Voluntary Agency Liaison Officer

William T. Oliver
Bilquis House, Gulshan
Telephone: (0) 256010 (X 207)
[REDACTED]

Contact List (cont'd)

Voluntary Agency Liaison Officer

Bert Kurland
Sophia House, Gulshan
Telephone: (0) 256010 (X 265)
[REDACTED]

Food Distribution Officer

Jon J. O'Rourke
Rahman House, Gulshan
Telephone: (0) 256010 (X 217)
[REDACTED]

Medical Services Officer

Emmet M. Wilson, M.D.
Anamika House, Gulshan
Telephone: (0) 244220 (X 218)
[REDACTED]

Engineering Officer

Clarence Groceman
Firoza House, CWN (A)-17, Holding #19, Gulshan
Telephone: (0) 256010 (X 276)
[REDACTED]

Logistics, Shelter and Survival Supplies Officer

Vernon W. Peterson
Huq House #2, Road 107, Gulshan
Telephone: (0) 256010 (X 282)
[REDACTED]

Contact List (cont'd)

Weather

(Bangladesh Meteorological Services)

Storm Warning Center
Mr. Shamsul Huq
Telephone: 314388 or 301610

Wing Commander M.S. Mowla
Director, Bangladesh Meteorological Services
Near Second Capital
Telephone: Office - 311032
[REDACTED] [REDACTED]

Dr. A.M. Chowdhury, Atomic Energy Commission
P.O. Box 164
Telephone: (0) 283874
[REDACTED]

Multilateral

FAO

Mr. Hugh Brammer, Program Officer
638, Rd. No. 21, Dhanmondi
Telephone: 314225

UNICEF

Dr. Michael Irwin, Special Rep.
House 150B, Road 13/11, Dhanmondi
Telephone: 315093-4

Contact List (cont'd)

UNDP

Mr. Bernard Zagorin, Res. Rep.
Mr. Robert Brinks, A/Res. Rep.
589, Road #17, Dhanmondi
Telephone: 317181-5

WFP

Mr. Trevor Page
638, Road No. 21, Dhanmondi
Telephone: 315536

WHO

Dr. E.S. Han, WHO Rep.
500B/2 Road #7, Dhanmondi
Telephone: 314622, 313713

Other Volags

Agricultural Development Agencies in Bangladesh

Winburn T. Thomas, Director
549F, Road 14
Dhanmondi
Telephone: 313923, 314741

CARE

Ronald P. Burkhard, Director
58/A Road 6, Dhanmondi
Telephone: Office: 244543, 317467-8
[REDACTED] [REDACTED]

Contact List (cont'd)

Catholic Relief Services (CRS)
Jim Delaney, Director
143F, Road 5, Dhanmondi
Telephone: 311432

Cholera Research Laboratory (CRL)

Dr. W.H. Mosley, Director
Telephone: Office: 300746
[REDACTED] [REDACTED]

Christian Organization for Relief and Rehabilitation (CORR)

Mr. Jeffrey Pereira, Director
2 Outer Circular Rd., Santibagh, Dacca-17
Telephone: 243606

Community Development Foundation

Alton C. Straughn, Jr., Director
286-B, Road 27, Dhanmondi
Telephone: 317454

International Committee of the Red Cross

553 Road #14, Dhanmondi
Telephone: 315031/2, 317676, 317433

International Voluntary Services (IVS)

John A. Peak, Director
353, Road 27, Dhanmondi
Telephone: 312830

Contact List (cont'd)

Save the Children Fund (UK)

Maj. T.G. Picard, Coordinator
274, Road #27, Dhanmondi
Telephone: Office: 311307

IDPS 70-77

- 1970 Mr. A.M.M. Tabarak Hussain
Deputy Commissioner of Relief & Rehabilitation
Dacca (East Pakistan)
- 1973 Mr. Khashruzzaman Choudhury
Deputy Secretary
Ministry of Relief & Rehabilitation
Dacca
- 1974 Mr. Abdul Khaleque
Secretary
Ministry of Relief & Rehabilitation
Dacca
- 1975 Mr. Syed Amir Khasru
Secretary
Ministry of Relief & Rehabilitation
Dacca
- 1976 Mr. Abul F. Chowdhury
Joint Secretary
Ministry of Relief & Rehabilitation
Dacca
- 1977 Mr. A.M. Abdul Quadir
Deputy Secretary
Ministry of Relief & Rehabilitation
Dacca
- Mr. Abdur Rashid
Section Officer
Ministry of Relief & Rehabilitation
Dacca

Host Funding

24,000,000 Taka (300,000 US \$) recurring costs for 1 year program provided by Bangladesh Government for Red Cross Program.

Cost borne by League of Red Cross Societies until June 1973; foreign exchange component also met by league.

As of 1975, program depends on League of Red Cross Societies for capital assets.

Red Cross Assessment

1973 survey by League of Red Cross Societies' Haegstrom resulted in present cyclone preparedness program and influenced action plan for cyclone operation of ministry of relief and rehabilitation.

Plan designates and describes roles of various agencies in preparatory, disaster and post disaster stages.

Chittagong, Noakhali, Barisal, Patuakhali and Khulna Districts and offshore islands, including Bhola, Hatiya, Sandwip, Moheshkhali and Kutubdha are considered cyclone-prone areas; focus of Red Cross disaster planning.

US Assessment

Mission disaster plan includes maps of transportation network (as of 1968), food storage centers (as of 1975) and health centers and hospitals (also 1975). Other resources for which reliable descriptive data were not available were not included in mission plan; UNDP/BDG Plan, under development in 1975, is expected to provide some of this information.

Mission feels Red Cross Plan "works fairly well." Though never formally approved by BDG, it has de facto recognition and is operational.

Seasonal Storms

Annual summer flooding is necessary for agricultural production; disastrous sheet flooding occurs every 7-8 years, may increase as a result of deforestation of major river watersheds upstream in India and Nepal. Minor destructive floods occur every 2-3 years.

Tropical cyclones average 1.3 annually in coastal districts; severe cyclones occur every fifth year (34 in last 180 years), but in cycles. Activity peaked around 1900, dropped to low of 4 in 1930-1960 period, rose to average of one severe cyclone per year since 1960 (as of 1975). Tropical depressions most likely to occur June-September, but severe cyclones have always occurred in May, October and November.

Other severe storms, kalbaishaki, form over land and move south toward coast bringing heavy rain, hail, high winds and isolated tornadoes; occur most often March and May.

Host Resources

Stockpiles

Dry Biscuits	-	6,000 cartons
Foodgrains	-	4,500 tons
Emergency Ration	-	3,000 tons
Crackers	-	400 tons

Note: Present food provisions are inadequate (Khasru, 1975).
See also host storage.

Services

Program has:

Roofed Shelters - 170, with work in progress in 80,
in Barisal, Patuakhali

90, site not yet selected, in Noakhali,
Chittagong

Host Resources (cont'd)

Killas (earth mounds, 137 out of 179 constructed)

10 C.M. Weather Radar at Cox's Bazaar

Transport

Water travel by small boat most practical transportation

7 Sub Projects

- 1) IWT - Develop regular water transport in cyclone areas
- 2) Telecommunication - 16 VHF/UHF base stations to serve 100 fixed PCO's at community centers. 40 mobile stations on government vessels.
- 3) Cyclone shelters - 260 to be constructed - used normally as schools
- 4) Primary roads
- 5) Feeder roads - 520 miles to connect shelters
- 6) Coastal fisheries - rehabilitate marine fisheries
- 7) Cyclone warning - improve warning system

Project expected complete 12/75. Est. 42 million cost met by IDA. Not mentioned as such by Khasru 1975.

Communication

Program has:

21 generators
22 SSB radios
1,970 transistor radios
2,000 megaphones-cum-electric sirens

Host Resources (cont'd)

Needs (Khasru 1975):

2,500 transistor radios
12,500 sirens
2,500 megaphones

Core of communications system - Cox's Bazaar Radar Station, Dacca Storm Warning Center, Meteorological Stations, Khepupara Radio Station Apt., Radio Bangladesh Red Cross Hq. Relief Ministry Control Room, Defense Ministry's Control Room (Air Force).

Locations of SSB radios (1973)

Amtali	-	1
Barisal	-	1
BDRC Chairman's House	-	1
Borguna	-	1
Charfasson	-	1
Chittagong	-	1
Cox's Bazaar	-	1
Dacca	-	2
Galachipa	-	1
Hatiya	-	1
Japanese Crewboat	-	1
Khepupara	-	1
Kutubdia	-	1
Monpura	-	1
Patharghata	-	1
Patharghata	-	1
Ramgati	-	1
Rangabali	-	1
Sandwip	-	1
Tajumuddin	-	1

Note: See also disaster plan; stockpiles and host resources; radio network.

Host Storage

Red Cross has 2 unit steel structure warehouse 60' X 330' X 10' with corrugated iron sheet walling and roofing in Chittagong area.

Storage available in Chittagong, Barisal, Dacca (1973).

100 cubic meter Red Cross Union Warehouses in most unions (1973). Distribution from Central Chittagong godowns within 7 days through thana centers to unions.

Ministry of food maintains stocks of essential relief goods at Tejgaon, Chittagong, Khulna, Barisal.

BDG System

4 Silos:	Chittagong	104,000 tons
	Narayanganj	51,000 tons
	Ashuganj	51,000 tons
	Santahar	26,000 tons
	Total	232,000 tons

12 Central Storage Depots (CSD):

<u>Name of District</u>	<u>Name of CSD</u>	<u>No. of Godowns</u>	<u>Capacity In Tons</u>
Dacca District	Dacca	19	11,100
Dacca District	Tejgaon	43	34,900
Dacca District	Narayanganj	33	20,000
Comilla District	Chandpur	11	12,177
Chittagong District	Chittagong	37	32,500
Chittagong District	Balishahar	54	60,000
Bogra District	Santahar	32	20,000
Mymensingh D.	Mymensingh	32	13,000
Barisal District	Barisal	15	15,000
Khulna District	Khulna	85	65,600
Khulna District	Maheswarpasha	38	40,000
Pabna District	Muladuli	26	26,000

321 Local Storage Depots (LSD):

<u>Name of District</u>	<u>No. of LSDS</u>	<u>Capacity in Tons</u>
Chittagong H.T.	12	6,100 tons
Chittagong	15	20,800
Noakhali	17	22,800
Comilla	18	33,224
Sylhet	22	21,348
Mymensingh	25	42,181
Tangail	6	10,333
Dacca	21	33,871
Faridpur	22	30,600
Barisal	22	25,664
Patuakhali	17	17,100
Khulna	17	20,091
Kushtia	9	13,096
Jessore	16	20,837
Pabna	7	19,062
Bogra	12	19,373
Rajshahi	19	26,577
Rangpur	21	38,846
Dinajpur	20	36,000
Total	321	460,975

Total of 1,046,252 tons of storage capacity.

Note: All silos are of reinforced concrete, constructed by the slipform method and provided with pile-supported foundations.

All bins have hoppers bottoms for handling grain and are self-cleaning.

Early Warning System

Aerial reconnaissance by Air Force, Civil Aviation for data collection on storm -- interpreted by Director of Meteorology. See Host Disaster Plan and Organization.

Disaster Types

Order by Prevalence

Cyclones
Tidal Bore
Floods
Epidemics
Droughts

Disaster Relief Organizations

International Organizations with disaster relief capability include: UNICEF, UNDP, WHO, FAO.

FAO study "Disaster Preparedness Planning, Precautionary and Rehabilitation Measures for Agriculture" recommends pre- and post-disaster measures to reduce loss of crops and of income to farmers.

Cholera Research Laboratory (AID supported) has 2 hospitals (Dacca and Matlab), 3 international physicians (2 epidemiologists), 11 Bengali physicians (5 epidemiologists) 7 nurses, 11 nursing assistants, a 90-man field staff, diagnostic laboratories with staff of 100; also, 15 outboard boats, 1 23-ft. launch, 25 multi-carrier motor vehicles, 20 vaccine injectors, limited stock of antibiotics, monthly intravenous fluid production capacity of 32,000 liters.

Association of voluntary agencies in Bangladesh (AVAB) attempting to set up co-ordinating mechanisms and liaison points with BDG; also surveying voluntary agency capabilities. (Survey to be appended to US Mission Plan.)

US Volags (As of 11/77)

<u>Voluntary Agencies</u>	<u>Personnel:</u> <u>Int'l/Local</u>	<u>Programs</u>
Asian-American Free Labor Institute (AFL-CIO)	NA	Ed

Voluntary Agencies	Personnel : Int'l/Local	Programs
Agricultural Development Council	1/0	Ed, Food Prod & Agr, P & Bus Admin
Agricultural Missions Foundation	2/0	Food Prod & Agr
Aid for International Medicine	NA	Equip & Mat Aid, Med & PH
American Friends Service Committee	1/8	CD, Food Prod & Agr, Med & PH
The Asia Foundation	1/10	CD, C.H.P., Ed, Food Prod & Agr, Ind Dev, Med & PH, Pop & Fam Serv, P & Bus Admin
Association for Voluntary Sterilization	NA	Pop & Fam Serv
Baptist World Relief	NA	C.H.P., Food Prod & Agr, Med & PH
CARE	23/511	CD, C.H.P., Coops & Loans, Food Prod & Agr, Ind Dev, Med & PH
The Carr Foundation	NA	Communications
Catholic Medical Mission Board	NA	Equip & Mat Aid, Med & PH
Catholic Relief Services, USCC	3/1	CD, C.H.P., Med & PH
Christian Reformed World Relief Committee	7/14	Food Prod & Agr
Church of God	NA	Food Prod & Agr
Churches of God in North America	6/81	Coops & Loans, Ed, Food Prod & Agr, Med & PH
Church World Service	NA	Equip & Mat Aid, Food Prod & Agr
Direct Relief Foundation	NA	Equip & Mat Aid, Med & PH

Voluntary Agencies	Personnel: Intl/Local	Programs
The Ford Foundation	NA	Ec & Dev Pl, Ed, Food Prod & Agr, Pop & Fam Serv
Franklin Book Programs	0/3	Ed
Sisters of the Holy Cross	14/117	Coops & Loans, Ed, Food Prod & Agr, Ind Dev, Med & PH, SW, Women
Holy Cross Foreign Mission Society	86/116	Coops & Loans, Ed, Equip & Mat Aid
International Voluntary Services	12/14	C.H.P., Food Prod & Agr, Pop & Fam Serv, Women
Lutheran Church -- Missouri Synod	NA	CD, Food Prod & Agr, Med & PH, Nutrition, Pop & Fam Serv
Lutheran World Ministries	16/NA	CD, C.H.P., Coops & Loans, Ed, Food Prod & Agr, Ind Dev, Med & PH, Nutrition, Pop & Fam Serv, SW, Women
Lutheran World Relief	1/0	Food Prod & Agr, SW
Map International	9/0	CD, Equip & Mat Aid
Medical Benevolence Foundation	NA	Equip & Mat Aid, Med & PH
Medical Missionary Sisters	4/0	Med & PH, Women
Mennonite Central Committee	31/0	Food Prod & Agr, Ind Dev, Med & PH, Nutrition, Pop & Fam Serv, Women
National Council of Catholic Women	NA	Equip & Mat Aid, SW
OXFAM -- America	NA	CD, Coops & Loans, Food Prod & Agr, Pop & Fam Serv, Women

Voluntary Agencies	Intl/Local	Programs
The Pathfinder Fund	NA	Pop & Fam Serv, Women
Planned Parenthood Federation of America	NA	Pop & Fam Serv, Women
The Population Council	1/0	Ec & Dev PI
Population Services International	1/50	Pop & Fam Serv
Presbyterian Church in the US	9/16	Food Prod & Agr, Med & PH
The Salvation Army	31/0	C.H.P., Ed, Equip & Mat Aid, Food Prod & Agr, Med & PH
Save the Children Federation	3/23	Communications, CD, Ec & Dev PI, Ed, Food Prod & Agr, Ind Dev, Med & PH, Nutrition, Pop & Fam, SW, Women
Seventh-Day Adventist World Service	1/10	C.H.P., Food Prod & Agr, Med & Ph, SW
Southern Baptist Convention	23/7	Ed
United Methodist Committee On Relief	NA	CD, Coops & Loans, Equip & Mat Aid, Food Prod & Agr, Nutrition
The United Methodist Church	2/0	CD, Food Prod & Agr, Med & PH, Women
World Mission Prayer League	9/0	Med & PH
World Relief Commission / N.A.E.	NA	C.H.P., Coops & Loans, Equip & Mat Aid, Food Prod & Agr, Med & PH, Nutrition, Women
World Vision Relief Organization	2/2	CD, Equip & Mat Aid, Food Prod & Agr, Med & PH, Pop & Fam Serv, SW
The Xaverian Missionary Fathers	26/45	Coops & Loans, Ed, Med & PH

Voluntary Agencies	Personnel: Intl/Local	Programs
YMCA	2/0	CD, Ed, SW, Youth
YWCA	2/16	Coops & Loans, Ed, Ind Dev, Med & PH, Nutrition, SW, Women, Youth

KEY:

CD.....Community Development
 C.H.P.....Construction, Housing and Planning
 Coops & Loans.....Cooperatives, Credit Unions and Loans
 Ec & Dev Pl.....Economic and Development Planning
 Ed.....Education
 Equip & Mat Aid.....Equipment and Material Aid
 Food Prod & Agr.....Food Production and Agriculture
 Ind Dev.....Industrial Development
 Med & PH.....Medicine and Public Health
 Pop & Fam Serv.....Population and Family Services
 P & Bus Admin.....Public and Business Administration
 SW.....Social Welfare

National Population

Population (1974 Census) 71,316,517. Government estimates of 87.1 million in mid-1979.

Annual Growth Rate: 2.9%
Urban Population: 9%
Male/Female Ratio: 108/100
Population Under 15 Years: 43%

Densities

Areas of greatest density are districts of Dacca, Comilla, and Noakhali with more than 2,000/sq mi. Close to cities of Dacca, Narayanganj, Chittagong, and Khulna density increases to more than 4,000/sq mi. Lowest density with 76/sq mi in Chittagong Hill Tracts; parts of Dinajpur and Rajshahi in northwest and swampy depression areas of Quaidabad and Sylhet have less than 600/sq mi.

Age Distribution

	<u>Age Distribution (In Thousands)*</u>		
<u>Year</u>	<u>1973</u>	<u>1988</u>	<u>2003</u>
<u>Total</u>	<u>73,980</u>	<u>114,678</u>	<u>161,655</u>
0-4	12,213	18,905	21,159
5-9	10,976	17,142	19,339
10-14	10,047	14,994	18,337
15-19	8,792	11,207	18,040
20-24	6,896	10,432	16,633
25-29	4,625	9,405	14,413
30-34	3,619	8,109	10,868
35-39	3,756	6,279	9,849
40-44	3,142	4,151	8,790
45-49	2,613	3,180	7,455

50-54	2,172	3,199	5,824
55-59	1,683	2,551	3,565
60-64	1,283	1,962	2,547
65-69	932	1,443	2,299
70-74	620	922	1,545
75+	611	797	1,391

* IBRD Population Projection

Population By Region

(Pop. In Thousands)

<u>Division</u>	<u>Area</u> <u>Sq. Mi.</u>	<u>Density</u> <u>/Sq. Mi.</u>	<u>Male</u> <u>Pop.</u>	<u>Female</u> <u>Pop.</u>	<u>Total</u> <u>Pop</u>	<u>% of Total</u> <u>Population</u>
Dacca	11,922	1,788	11,132	10,183	21,316	29.0
Chittagong	17,283	1,078	9,707	8,929	18,636	26.0
Rajshahi	13,370	1,296	8,909	8,422	17,331	24.0
Khulna	13,023	1,090	7,321	6,874	14,195	19.8

Urban Areas

	<u>61 Census</u>	<u>74 Census</u>
Dacca	556,712	1,730,253
Chittagong	364,205	889,760
Khulna	127,970	437,304
Narayanganj	162,054	270,680

Population By District

<u>District</u>	<u>Total Pop.</u>	<u>Male Pop.</u>	<u>Female Pop.</u>
Bakerganj	3,928,414	2,021,629	1,906,785
Bogra	2,231,003	1,136,640	1,094,663
Comilla	5,819,176	301,208	2,807,099
Dacca	7,611,802	4,065,587	3,546,220
Dinajpur	2,570,572	1,334,127	1,236,445
Faripur	4,059,511	2,086,843	1,972,668
Jessore	3,026,678	1,711,251	1,615,527
Khulna	3,557,460	1,854,244	1,703,216
Kushita	1,883,635	971,041	912,594
Mymensingh	7,566,825	3,910,533	3,656,292
Noakhali	3,234,061	1,658,269	1,575,292
Pabna	2,814,645	1,452,778	1,361,867
Patuakhali	1,498,987	762,896	736,091
Rajshahi	4,268,417	2,175,727	2,092,690
Rangpur	5,446,916	2,809,910	2,637,006
Sylhet	4,759,281	2,457,978	2,301,303
Tangail	2,077,924	1,069,529	1,008,395

Health Services

Health services are centralized and administered by districts under supervision of a civil surgeon. Urban areas have concentration of specialized services while rural areas rely mainly on traditional healers. Improved primary health care is major government priority, especially in the area of family planning. Laboratory facilities rudimentary except for the Cholera Research Laboratory in Dacca.

Diseases

Diarrheal diseases, including cholera (endemic) and bacillary dysentery, most common causes of death. Other major diseases include measles, tuberculosis, dengue, yaws, venereal diseases, diphtheria, leprosy, neonatal tetanus (leading infant killer), typhoid, brucellosis, poliomyelitis, rabies (endemic), and malnutrition (especially among children).

Half of population lives in malarious areas. Chittagong Hill Tract and border areas have especially high incidence rate year-round. Control measures have helped but strong risk of resurgence mainly during monsoon season. Seasonal pattern also seen in cholera outbreaks. Last case of smallpox in 1975.

Crude Death Rate, By Causes (1976)

<u>Causes of Deaths</u>	<u>1976 Level</u>
Gastro-intestinal diseases	3.5
Tuberculosis	0.8
Malaria	0.2
Measles	3.0
Tetanus	2.0
Diphtheria	0.4
Pertussis	0.2
Pregnancy and child birth related	0.26
Diseases of infancy (infant mortality) ¹	0.8
Poliomyelitis	0.1
Leprosy	0
Upper respiratory infection	0.5
Pneumonia	2.3

<u>Causes of Deaths</u>	<u>1976</u> <u>Level</u>
Skin diseases	0.2
Accidents	1.7
Peptic ulcer	2.1
Worm infestation	0.7
Cardiovascular diseases	<u>2.2</u>
Total	20.92
Estimated Crude Death Rate, 1974	19.4

¹Excluding double counts for conditions otherwise specified.

Source: WHO-Country Health Programming in Bangladesh-Program Proposal, August 1977, Dacca.

Vital Statistics (1979)

Birth rate: 47/1,000 population
 Death rate: 18/1,000 population
 Infant mortality: 153/1,000 live births
 Maternal mortality: 30/1,000 live births
 Life expectancy: 46 years at birth

Health Facilities

Total Hospital Beds in Bangladesh as of June, 1973

<u>Category</u>	<u>Number of Beds</u>						<u>Grand Total</u>
	<u>Public Sector</u>			<u>Private Sector</u>			
	<u>Urban</u>	<u>Rural</u>	<u>Total</u>	<u>Urban</u>	<u>Rural</u>	<u>Total</u>	
1) General Beds:							
Dist. Hospital	1,118		1,118	398	1,178	1,576) 3,780
Subdivisional Hospital	1,086		1,086				
2) Teaching Hosp.	3,670		3,670				3,670
3) Specialized Hosp.							
Tuberculosis and Chest Leprosy	966		966) 1,606
Infectious Diseases	180		180				
Mental	400		400				
4) Maternity	235	900	1,135	286		286	
5) Jail Hosp.	860		860				860
6) Police Hosp.	652		652				652
7) Railway Hosp.	137	187	322				322
Total :	9,364	1,085	10,449	684	1,178	1,862	12,311

Source: Bangladesh 5-Year Plan, September 1975

Hospital bed/population ratio is 1/4,430 (1976); rural is 1/65,000
 Rural Health Centers - 160
 Laboratory Facilities - Rudimentary, except for Cholera Research Laboratory.

Health Personnel

As of 1973:

Doctors	
M.B.B.S	7,000
Post-Graduate	247
Nurses	
Basic	700
Post-Basic	27
L.H. V.S + L.F.P.V.	291
Midwives (Auxiliary Midwives)	250
Sanitary/Health Inspectors	980
Compounders	2,650
Pharmacists	187
Laboratory Technicians	170
X-Ray Technicians	130
Radio Therapy Technicians	10
Blood Bank Technicians	20
Physio-Therapy Technicians	10
Dental Technicians	20
Dentists	74
Assistant Inspectors	1,257
Multi-Purpose Basic Health Workers (Family Welfare Workers)	-
Family Planning Officers	422
Family Planning Assistants	-

Ratios:

Nationwide doctor/patient ratio 1:11,350 (1976);
Rural - 1:40,000
Doctor/nurse ratio is 10:1

Pharmaceuticals

Cold storage for drugs available at National Airport, Dacca,
possibly in provincial health centers.

Diet: MDR/Intake

MDR: 2,300 calories

FAO distributes minimum daily requirements:

Protn	Fat	Carbohy	Calci	Phos	Iron	Vitamin A	Sodium	Potassium
46g	115g	258.8g	450mg	450mg	18mg	2475iu	--	--

Intake:

1,730 Calories/day in urban areas

2,250 Calories/day in rural areas

Calorie intake as % of requirements: 93

Per capita protein intake (grams): 58.5

Basic Meal

Rice, fish, meat (mutton)

Typical meal - rice or chappati & curry

Basic Diet

Basic diet of rice, which with other cereals comprises 80% of calories, pulses, fish, fruits and vegetables (brief seasonal availability); small amounts of milk and tea consumed, mustard oil widely used. Two main meals of rice, curried vegetables and fish.

Custom dictates reservation of eggs and bits of meat for men. Milk and other protein foods, associated with diarrheas, not given to children.

Monsoon season and winter present greatest hardships in procuring food. Meat is available to the poorest only at time of festival celebrations. Hindu dietary distinctions of hot (meat, eggs, honey, fish, oil) and cold (rice, vegetables, fruit) further restrict the diet of this group. Hot conditions, fever, no hot foods.

Before the famine of 1974 more than half the population suffered from some degree of malnutrition.

Urban and Rural Nutrient Deficits

Percentage of households with nutrient intake below acceptable level :

	<u>Rural</u>	<u>Urban</u>
Calories	45.7	76.4
Protein	60.8	77.2
Calcium	85.8	93.9
Iron	67.9	79.6
Vitamin A	83.8	80.8
Thiamine	15.5	39.1
Riboflavin	86.6	80.3
Niacin	7.8	37.9
Vitamin C	60.1	59.3

More than 45% of the rural families and 76% urban families are below the acceptable caloric intake.

About two-thirds of families are deficient in proteins and vitamins.

Meals

Information from AID Food Habits Questionnaire:

3 meals daily:

Morning: rice; boiled, puffed or rice cakes. Fish and/or vegetable curry, brown sugar or pulse (mung beans, lentils, chickpeas, peas, beans). In cities, chappati or paratha (unleavened whole wheat breads) may replace rice.

Mid-Day: boiled rice with fish or vegetable curry or pulse.

Meals (Cont'd)

Evening: same as mid-day

Beverages: tea with milk, sugar, coconut water, buttermilk, palm juice

Food cooked inside (occasionally outside when field trash used as fuel) on hearth fueled by wood, cow dung, field trash, straw.

Food Staples

Fat: rapeseed, mustardseed, soybean oils

Vegetables: spinach, rapeseed/mustard greens, cauliflower, eggplant, okra, onion, chillies, unripe tropical fruits used in curries

Fruits: mangoes, jackfruit, banana, pineapple, coconut

Milk: cow, goat; fresh, boiled and sweetened; as yogurt and buttermilk

Grain: rice, millet

Fish: fresh, cured

Meat: mutton, beef, very rarely available

Note: pork, shellfish prohibited by Islam; preserved meat not acceptable.

Utensils

Metal (brass, copper, aluminum, iron) and earthenware pots, deep and shallow, griddle, frying pans, metal or wooden ladders for cooking; metal or earthenware plates, bowls, tumblers for eating. Food eaten with hands; spoons used for sweets.

Family Planning

Major component of government health program.

- 4,197 family planning assistants (FPA's) at union level.
- 10,550 family welfare assistants (FWA's) at ward level.
- 1,206 family welfare visitors (FWV's) in rural areas for maternal - child health services.
- 450 family welfare centers at union level to integrate health, maternal, child, nutrition and family planning services (500 more are planned).
- 11 family health training institutes

Newly established National Institute of Population Training trains mid-level managers on supply and delivery of contraceptive materials.

Delivery of Contraceptive Services (1971-1979)

<u>Year</u>	<u>IUD</u>	<u>Sterilization</u>	<u>Condoms</u> <u>(dozen)</u>	<u>Pills</u> <u>(cycles)</u>	<u>Others</u>
1971-72	9,087	16,859	785,282	22,079	-
1972-73	15,785	792	1,598,360	146,511	73,568
1973-74	27,592	15,461	936,631	438,973	99,704
1974-75	48,776	18,978	773,497 ¹	1,127,041 ¹	107,307
1975-76	77,744	48,458	4,562,045 ¹	5,943,055 ¹	129,148
1976-77	60,148	123,391	3,848,128	5,188,339	69,301
1977-78 ²	40,477	77,787	5,333,558	7,464,570	42,886
1978-79 ²	12,996	61,053	2,331,755	3,899,430	24,024

¹ Includes 1,520,333 cycles of pills and 995,400 dozen condoms distributed during the one week campaign period in January 1976.

² For the period from July 1978 to December 1978.

Source: Population Control and Family Planning Directorate.

Fertility Rate

Total Fertility Rate: 6.0 (average liveborn children per woman of reproductive age (15-44))

50% population under 15 years of age

50% females married by 13 years; 99% by 19 years

average family size 5.6 (for reasons of security and custom)

Housing

Population pressure and lack of building materials limit achievements in housing in both urban and rural areas. Typical rural house is one room structure of clay or rice straw and bamboo, without water, sanitation or electricity. It must be replaced every 2-3 years. In areas where deep flooding occurs, earthen plinths 4 m (15 ft.) high are used to raise houses above flood level.

Analysis of urban housing reveals that 71% of units surveyed were temporary structures without any masonry, 56% had only one room, 82% have no water connection and 97%, no electricity. Wood, stone, and limestone for cement not locally available where needed. Government has urban housing program (none for rural sector): T 734 million allocated for housing and physical planning in 1976/77 budget. (Provisional budget for 1977/78 allocated T 1,037 million).

1979 Housing Status

Housing shortage continues; aggravated by 370,000 Bihari and Burmese refugees.

Overview of Economy

Bangladesh is one of the poorest countries in the world. Economy based primarily on agriculture which employs 80% of the population and accounts for 60% of GNP. Rice is major crop with three harvests a year. However, production is not sufficient to meet country's needs, necessitating massive imports of foodgrains. Farming mainly done at subsistence level with surpluses only in Sylhet and northwestern districts. Principal cash crop is jute accounting for 85% of export earnings.

Industry accounts for less than 10% of GDP with jute processing and cotton textiles as main products. Industry has been plagued by inefficient production, poor quality management and distorted pricing policies.

The financial outlay for 5-year plan 1974-79 is TK 44,550 million, of which TK 39,520 million is allocated to the public sector, of this, TK 10,670 million is for agricultural production, TK 8,770 million for industry, TK 6,080 million for communications and transport and lesser amounts for education and family planning.

The Second 5-year plan starts in 1980, part of a 20-year perspective plan. A two-year interim plan for 1978-80 has emphasis on rural development.

Although annual GDP growth rate has been steady, averaging 5.7%/year (1973-78), the economy has yet to reach pre-independence (1970) levels. Current government priorities include control of population growth, increased foodgrain output and improved efficiency of jute manufacturing.

GDP (1978)

GDP	- US \$7,745 million (est.)
GDP Real Growth	- 8%
Per Capita Income	- US \$91
Unemployment	- 25-30%
Inflation Rate	- 12%
Domestic Savings	- 1% of GDP
Agricultural Growth	- 7%
Industry Growth	- 10%
Other Sectors Growth	- 8%

Production

Selected Products (Public sector only, July 1st to June 30th)

		<u>1973/74</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>
Jute textiles	'000 tons	500	444	478	490
Hessian	'000 tons	172	146	161	166
Sacking	'000 tons	227	228	221	227
Carpet backing	'000 tons	66	40))
Others	'000 tons	35	30) 95) 96
Cotton cloth	million yards	79	86	74	68
Cotton yarn	million lb.	96	101	88	82
Newsprint	'000 tons	26	29	20	15
Other paper	'000 tons	24	25	20	32
Cement	'000 tons	53	143	157	308
Steel ingots	'000 tons	74	76	89	106
Re-rolled steel products	'000 tons	128	150	75	96
Petroleum products	'000 tons	323	761	N.A.	N.A.
Urea fertilizer	'000 tons	279	69	276	281
Ammonium sulphate	'000 tons	10.3	4.9	6.0	9.0
Chemicals	'000 tons	5.7	7.0	13	13
Soaps	'000 tons	10.4	5.9	N.A.	N.A.
Refined sugar	'000 tons	88	98	86	140
Footwear	'000 dozen	391	280	N.A.	N.A.
Wine and spirits	'000 gallons	614	700	733	N.A.
Tea*	million lb.	61	66	70	75
Edible oil and vegetable ghee	'000 tons	18.4	15.4	N.A.	25
Cigarettes	'000 million	1.1	1.8	12	12

* Including production in the private sector

Source: Nationalized Industries Division, Public Sector Corporation,
Planning Commission and Bureau of Statistics

Fishing*
('000 tons, year ending June 30th)

	<u>1971/72</u>	<u>1972/73</u>	<u>1973/74</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77*</u>
Inland	729	731	732	735	733	733
Marine	85	87	88	90	89	89
Total Catch	814	818	820	825	822	822

* Estimates

Source: Bangladesh Bureau of Statistics

Note: Big part of diet (80% of per capita intake of animal protein) and export commodity. Fishing industry could be expanded but modernization necessary.

Per Capita Consumption

	<u>1969/70</u>	<u>1972/73</u>	<u>1977/78*</u>
Rice consumption/day	15.41 oz.	12.91 oz.	15.61 oz.
Sugar consumption/year	4.22 lb.	3.0 lb.	4.48 lb.
Textile consumption/year	7.5 yd.	4.96 yd.	8.14 yd.
Tea consumption/year	0.14 lb.	0.16 lb.	0.22 lb.
Electricity consumption/year	1.63 kwh	1.64 kwh	3.56 kwh
Gas consumption/year	5.27 c. ft.	4.93 c. ft.	21.37 c. ft.

* Target per capita consumption

Balance of Payments

	<u>1978 (estimated actuals)</u>	<u>1979 (Pro- jections)</u>
Merchandise Imports (c.i.f.)	- 1,349	- 1,719
Merchandise Exports (f.o.b.)	497	613
Trade Balance	- 852	- 1,106
Service (net)	- 17	- 25
Private Transfers	83	98
Current Account Balance	- 786	- 1,033

	<u>1978 (estimated actuals)</u>	<u>1979 (Pro- jections)</u>
Amortization of Medium and Long-term Debt	- 35	- 55
Short-term Capital Movements (net)	19	- 33
Errors and Omissions	- 19	-
Changes in Reserves	24	25
External Capital Disbursements	<u>797</u>	<u>1,095</u>
of which: Food	(190)	(250)
Commodity	(352)	(520)
Project	(255)	(325)

Foreign Aid

Total foreign aid commitment between December 1971 and June 1978 reached US \$6.229 billion, of which US \$2.699 billion (43.3%) was in the form of grants.

Foreign Aid

(US \$ million, July 1st to June 30th)

<u>Donor</u>	<u>1974/75</u>	<u>1975/76*</u>	<u>1976/77*</u>
Canada	80	18	7
India	20	30	19
Japan	30	45	41
Netherlands/Belgium	14	24	5
Sweden	33	21	12
USSR	13	13	26
United Kingdom	21	18	26
USA	<u>253</u>	<u>258</u>	<u>59</u>
Total	<u>464</u>	<u>427</u>	<u>195</u>

* Actually received

External Trade*

	<u>1973/74</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>
Imports	5,013.0	10,842.4	14,703.1	13,992.9
Exports	2,769.0	3,135.8	5,551.7	6,670.1

* Million taka, July 1st to June 30th

Exports*

Unit	<u>FY 1978</u>			<u>FY 1979</u>		
	<u>Quantity</u>	<u>Unit Price</u>		<u>Quantity</u>	<u>Unit Price</u>	
	<u>(million)</u>	<u>(US \$)</u>	<u>Value</u>	<u>(million)</u>	<u>(US \$)</u>	<u>Value</u>
	<u>Estimated Actuals</u>			<u>Projections</u>		
Raw Jute Bales	1.67	57.5	97	2.30	65.0	150
Jute Goods Tons	0.522	475.0	248	0.540	525.0	284
Tea Lbs	63.00	0.72	45	60.00	0.66	39
Leather	-	-	46	-	-	47
Fish & Shrimp	-	-	21	-	-	40
Others	-	-	40	-	-	53
Total			497			613

* Million US \$

Imports*

Unit	<u>FY 1978</u>			<u>FY 1979</u>		
	<u>Quantity</u>	<u>Unit Price</u>		<u>Quantity</u>	<u>Unit Price</u>	
	<u>(million)</u>	<u>(US \$)</u>	<u>Value</u>	<u>(million)</u>	<u>(US \$)</u>	<u>Value</u>
	<u>Estimated Actuals</u>			<u>Projections</u>		
Food						
Grains Tons	1.64	144	236	1.55	172	267 ¹
Rice Tons	(.30)	(229)	(69)	(.05)	(260)	(13)
Wheat Tons	(1.34)	(125)	(167)	(1.50)	(169)	(254)
Edible Oil Tons	0.071	683	49	0.075	750	56

¹ Includes \$20 million of estimated freight costs

Unit	FY 1978			FY 1979		
	Quantity	Unit Price	Value	Quantity	Unit Price	Value
	(million)	(US \$)		(million)	(US \$)	
	Estimated	Actuals		Projections		
Oil Seeds Tons	0.047	333	16	0.015	310	5
Petroleum						
Pro-						
ducts Tons	0.323	126	41	0.300	138	41
Crude Pe-						
troleum Tons	1.155	108	125	1.200	112	134
Cotton Bales	0.154	301	46	0.174	371	65
Man-made						
Fiber Bales	0.079	264	21	0.054	273	15
Cotton						
Yarn Bales	0.036	552	20	0.048	542	26
Textiles -	-	-	21	-	-	20
Fertilizer Tons	0.418	172	72	0.765	225	172
Cement Tons	0.392	50	20	0.750	59	44
Capital						
Goods -	-	-	318	-	-	375
Other Raw						
Materials -	-	-	280	-	-	342
Other Consumer						
Goods -	-	-	84	-	-	157
Total			1,349			1,719

* Values in million US \$

Overview of Agriculture

Agriculture is dominant sector of economy employing 86% of labor force and accounting for 59% of the GDP in 1976. Production methods are largely traditional with many farmers surviving only at a subsistence level. Staple crop output must be supplemented by imports. Total cropped area is 30.4 million acres out of a total 35.3 million acres. Due to weather patterns there is a need for water control. Principal products are rice, jute and sugarcane.

Rice production in 1978 was up sharply from drop in 1977. Good weather has played important role (no major droughts or cyclones for last 3 years) along with increased use of fertilizer (650,000 tons up 27%). Irrigation also up with 36,564 power pumps in use, and the sinking of 873 new deep tubewells and 3,086 shallow tubewells.

Wheat is providing an increased share of total foodgrain production. Farmer's response to government's seed distribution and extension efforts has been favorable, reflected by increased acreage sown from 400,000 acres in 1977 to 470,000 acres in 1978.

Principal Crops

	Area (million acres)	Yield (tons per acre)				
		1975/76	1974/75	1975/76	1976/77	1977/ 78
Rice (milled)	24.42	0.49	11.11	12.56	11.57	12.99
Wheat	0.40	0.57	0.11	0.21	0.26	0.35
Sugarcane	0.36	17.85	6.63	5.89	6.40	7.00
Potatoes	0.19	3.71	0.87	0.89	0.72	-
Sweet potatoes	0.17	4.33	0.71	0.78	0.75	-
Pulses	0.82	0.29	0.22	0.22	0.23	-
Oilseeds	0.76	0.25	0.17	0.24	0.23	-
Jute	1.60	0.55	0.62	0.70	0.86	-

Source: Bangladesh Bureau of Statistics

Crop Yields

<u>Year</u>	<u>69-70</u>	<u>70-71</u>	<u>71-72</u>	<u>72-73</u>	<u>73-74</u>	<u>1975</u>
Rice*	11,816	10,968	9,780	9,930	11,700	13,200
Wheat	103	110	113	90	90	
Gram & Pulses	193	296	269	222	208	
Edible Oil Seeds						
A. Rape & Mustard & Til	163	163	112	132	123	
B. Groundnut	51	47	38	31	27	
Potato	857	849	741	747	719	
Sugarcane	7,418	7,598	5,686	5,318	6,342	
Jute (1,000 Bales)	7,171	6,670	4,193	6,514	6,000	
Mesta (1,000 Bales)	220	131	93	110	106	
Tea (Mil. Lbs.)	67	69	22	53	60	
Tobacco	91	86	76	87	41	

* All measures in thousands of long tons, unless noted otherwise.

Planting and Harvest Dates

<u>Crop</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Rice												
Aus			PT	PT	P		H	H	H			
Aman	H		P	P			T	T	T		H	H
Boro	T	T	H	H	H	H					T	T
Jute							H	H	H	H		

T = transplanting

1979 Status

Widespread rains in early February benefited wheat and pulses crops and augmented irrigation supplies. 1979 wheat crops expected to exceed 1978 level of 342,000 tons. However, Boro (secondary) rice crop (harvest - April/May) likely to be lower than 1978 record of 2.4 million tons. Local shortages of fertilizers continue. Tornado hit 60 villages in March causing some property and crop damage. FAO/WFP emergency food assistance for refugees from Burma in operation.

1977/78 Crops

- Rice: 1977/78 production estimated at 13 million tons; up 11% from 1976/77, but 3% below trend. Aman crop biggest gains at 7.5 million tons while fertilizer use up substantially due to favorable rice prices.
- Wheat: Although still a minor crop, 1977/78 crop expected to yield record level to 425,000 tons, up 63% from 1976/77 or 83% above trend. Increase due to greater hectarage, HYV use.
- Jute: 990,000 tons in 1977/78, up 13% from previous year; area sown up 12% to 728,000 hectares. However, no improvement in volume or quality is expected; early rainfall induced premature flowering; farmers cut premature jute, re-planted with rice.

Oilseed: Production totaled 235,000 tons in 1977, approx. same as 1976 levels. Area and production stagnant in recent years; unfavorable returns, strong competition for available cropland.

Sugarcane: 1976/77 production expected to exceed demand; leaving up to 30,000 tons for export (a one-time phenomenon). 1977/78 production likely to meet pre-independence level of 7 million tons.

Tobacco: Production/area likely to be down to 51,000 tons, 60,000 hectares respectively; still 30% above trend.

Imports

<u>Year</u>	<u>69-70</u>	<u>70-71</u>	<u>71-72</u>	<u>72-73</u>	<u>73-74</u>	<u>74-75**</u>
Rice*	0.50	0.38	0.67	0.37	0.08	0.28
Wheat	1.04	0.88	1.02	2.37	1.56	2.05
Total	1.55	1.26	1.69	2.74	1.64	2.33
Total Availability For Consumption	12.27	11.22	10.59	11.76	12.26	12.66
Per Capita Availability (lbs)	388.2	347.4	327.5	355.9	360.2	360.6

Tobacco and cotton also imported

* All measures in millions of long tons, unless otherwise noted.

** estimates

See also: Economic Imports and Exports

Exports

<u>Year</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974**</u>
Jute Fiber*	160	105	114	132	122
Jute Manufactures	195	157	159	177	198
Tea	51	58	58	10	15

* All figures in million US \$

** Preliminary

See also: Economic Imports and Exports

Climate

Rainfall - Nationwide annual average is 85", 70% of which falls during southeast monsoon (June-September). Minor rainy season (March-May), brings 20% of total, but little in northwest and far southeast, west is lowest (50-60"/yr.), northeast highest (200") variation in annual average:

Lalakhali, Sylhet - 226" - Highest
Lalpur, Rajshahi - 48" - Lowest

Dry season (mid-October to early March) is brought by North-east winter monsoon.

Seasons:

November - January: Winter (cool)
February - March : Spring
April - September: Summer
September - November: Autumn

July - August: Rains*
July-December: Heavy Winds

* Premonsoon rains April - May

Temperatures*

<u>City</u>	<u>Rge</u>	<u>Jan</u>	<u>Apr</u>	<u>Jul</u>	<u>Oct</u>	<u>Extr-</u> <u>eme</u>	<u>Lati-</u> <u>tude</u>	<u>Longi-</u> <u>tude</u>
Chittagong	Max	79	89	87	87	85	22°26'N	90°51'E
	Min	55	73	78	74	69		
Cox's Bazaar	Max	80	89	85	86	85	21°32'N	92°00'E
	Min	56	73	76	74	70		
Noakhali	Max	78	89	86	87	85	22°52'N	91°08'E
	Min	58	76	78	76	72		

Temperatures (cont'd)

<u>City</u>	<u>Rge</u>	<u>Jan</u>	<u>Apr</u>	<u>Jul</u>	<u>Oct</u>	<u>Extr-</u> <u>eme</u>	<u>Latit-</u> <u>tude</u>	<u>Longi-</u> <u>tude</u>
Brahmanbaria (Comilla)	Max	78	93	90	89	88	23°33'N	91°17'E
	Min	52	70	76	74	68		
Srimangal	Max	80	92	90	89	88		
	Min	48	69	76	70	65		
Mymensingh	Max	76	91	88	87	85	24°48'N	90°28'E
	Min	54	71	78	74	69		
Narayanganj (Dacca)	Max	80	92	88	88	87	23°46'N	90°23'E
	Min	56	74	79	75	71		
Khulna	Max	79	94	88	88	87	22°50'N	89°38'E
	Min	55	75	79	75	71		
Satkhira (Khulna)	Max	80	97	89	90	89		
	Min	53	76	78	74	70		
Faridpur	Max	76	94	88	87	86		
	Min	53	73	79	74	69		

* Degrees Fahrenheit

Mean Rainfall

	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Chittagong Total: 111	.39	.61	3.65	3.16	10.38	20.40	24.05	21.46	12.35	12.45	2.29	.20
Cox's Bazaar Total: 136	.49	.21	1.20	1.91	11.09	28.07	35.80	26.32	16.60	12.20	1.86	.03
Maizdi Court (Noakhali) Total: 127	.84	.59	2.11	4.13	12.96	28.27	26.77	21.96	17.52	10.03	2.09	.01
Brahmanbaria (Comilla) Total: 81	.53	.63	2.77	5.78	9.70	15.47	15.17	10.79	10.17	7.91	1.57	.05
Srimangal (Sylhet) Total: 102	1.14	1.35	3.80	7.28	16.37	21.81	14.41	13.58	12.50	7.03	1.88	.11

Rainfall (cont'd)

<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mymensingh		Total: 99									
.77	.79	1.95	3.18	9.59	20.25	14.65	17.02	13.48	8.40	8.93	.11
Narayanganj (Dacca)											
.60	.62	1.99	6.73	8.88	16.61	14.77	12.95	9.19	7.32	1.04	.06
Khulna		Total: 68									
.64	.17	.88	2.27	7.59	13.24	16.71	8.71	9.85	6.66	1.23	.02
Satkhira (Khulna)		Total: 68									
.77	.37	1.23	2.68	8.28	10.77	15.27	11.04	9.70	6.41	.96	.11
Faridpur		Total: 76									
.47	.61	1.94	4.58	9.28	13.54	15.82	11.85	9.70	7.67	.89	.10
Jessore		Total: 58									
.38	.42	1.21	1.81	6.46	10.59	12.39	11.11	7.83	5.15	.50	.11
Barisal		Total: 98									
.67	.11	1.38	2.89	9.31	18.94	20.67	15.20	15.87	10.54	1.82	.12
Rajshahi		Total: 47									
.90	.32	.98	.58	3.81	7.69	12.89	8.85	6.26	4.77	.57	.05
Dinajpur		Total: 68									
.77	.03	.53	1.76	5.86	14.08	16.03	12.37	11.40	4.73	.26	.00
Ranepur		Total: 89									
.98	.19	1.36	2.51	9.97	23.20	19.79	13.04	10.25	6.77	.32	.00
Bogra		Total: 71									
1.02	.49	1.54	1.65	12.76	14.44	13.48	11.13	6.82	6.82	.73	.05
Pabna		Total: 74									
.57	.41	1.45	.95	15.95	10.74	11.16	10.50	10.21	7.14	4.33	.10

Land Forms

Total area 55,598 sq mi. Except for low hills in Sylhet and Chittagong, country is flat alluvial plain, subdivided into true delta

south of 24°N latitude, generally below 25' in elevation, and para-delta in the northwest, sloping from 300-350' in north to 30' in south. Northeast quadrant of plain (elevation 150-30') is most vulnerable to flooding during rains. The Sunderbans, coastal delta and islands to 5 to 25 m inland, are shifting, tidal-flushed salt marsh. Chittagong district and hill tracts, narrow forested north-south ridges (120' wide, 2-3,000' elevation) alternating with fertile valleys.

Altitudes

Greatest elevation - 4,034' at Keokradong in Chittagong hill tracts.

- 131' - Dinajpur
- 87' - Chittagong
- 62' - Mimensingh
- 26' - Jessore
- 20-26' - Dacca - Narayanganj

Land Use

	<u>1971-72</u> (millions of acres)
Total area	35.3
Forests	5.4
Not available for cultivation	6.6
Other uncultivated land	0.7
Total non-agricultural area	12.7
Fallow land	2.1
Net sown area	20.4
Total cultivated area	22.5
Sown more than once	8.5
Total cropped area	30.4

Waterways

Most significant natural feature - 4,600 miles of rivers. Network moves from north to south with many distributaries fanning

out from larger rivers. Due to flooding, rivers modify or change channels frequently. Different names for sections of same river complicate description.

Ganges-Padma forms 90 mile boundary with India in northwest. As Padma (has been main channel for last 200 years) flows southeast to join Meghna below Dacca, major distributaries (all flow south) Madhumati and Arial Khan (Bhubanswar).

Brahmaputra-Jamuna rises in Himalayas, drains South Tibet, Assam valley of India, flows due south in multiple channels for 25 miles then receives 2 tributaries, Dharla and Tista from northwest. Now called Jamuna, flows South in shifting subchannels to join Padma 45 miles west of Dacca. 2 large tributaries from northwest here - Karatoya and Atrai.

Meghna-Surma, Kusiyara Rivers from India form Kalni which becomes Meghna southwest of Sylhet, major tributary here is Baulai, continues Southwest in twisted channels joined by old Brahmaputra and Dhaleswar, (distributaries of Jamuna) to Padma.

River junction stem and estuary on the Bay of Bengal. From Padma-Meghna Junction flows through 40-mile channel which widens into triangular estuary with hundred mile seaward base from Khulna to Chittagong. Meghna has stronger tidal currents further inland than any other South Asian river, up to Kalipur and 30-40 miles beyond. Tidal rise in stem and estuary is 10-18'. Tidal bores recur in estuary and stem rivers, especially at equinoxes.

Coastline

360 miles of coastline on the Indian Ocean, Bay of Bengal.

Estuary - many islands - largest (West to East) Shahbazpur, North Hatia, South Hatia, Sandwip.

Chars - shifting or permanent land areas formed by silting, tidal waves (bores) 20' or higher favored by funnel shape of estuary, many channels.

Coastal plain in Chittagong - widest and lowest at ports of Chittagong and Cox's Bazaar; narrowest north of former and south of latter, sometimes as cliffs.

Mountains

See Land Forms and Altitudes

Road Network

Road, bridge and embankment construction expensive and difficult due to lack of building materials and flooding. No unified national road system. Total highways: 44,930 km, 4,044 km paved, 2,022 km gravel, 38,864 km earth. Many roads are single lane and unable to bear heavy traffic. In delta region roads are frequently interrupted by fords and may only be passable in dry season.

Vehicles

(Motor Vehicles In Use)

	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>
Private motor cars	10,413	11,160	11,882	12,409
Taxis	928	904	815	837
Buses and coaches	6,030	6,207	5,223	5,264
Trucks	8,440	9,380	9,457	9,369
Jeeps	3,521	4,100	4,112	4,570
Station wagons	1,201	1,360	1,583	1,686
Auto-rickshaws	7,375	8,424	7,398	7,486
Motor-cycles	15,264	17,026	20,194	22,605
Others	<u>1,367</u>	<u>1,358</u>	<u>1,403</u>	<u>1,753</u>
Total	54,539	59,919	62,067	65,979

Surface Miles

Dacca to:	Chittagong	510 st miles
	Jessore	255
	Khulna	340
	Narayanganj	68 (via ferry)
	Nasirabad	255 (formerly Mymensingh)
	Rajshahi	374
	Rangpur	595
	Sylhet	425

Railroads

1,800 miles in length with about 2,600 miles of track. Rail gauges are not uniform; often different on either side of river. Ganges River only bridged north of Kushtia by broad-gauged railroad. Most rail lines run north-south like rivers, with rail and river transport often combined. East-west lines exist but are part of total mileage. 8 points of connection between Bangladesh and Indian systems. A four-member Railway Board was set up in 1977 responsible for deciding policy and exercising government control over railway system.

Government-owned Bangladesh Railway:

483 stations
445 locomotives
1,192 passenger cars
358 coach vehicles
16,925 freight cars

Railway Transport

	<u>1972/73</u>	<u>1973/74</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>
Passenger miles (millions)	1,739.7	2,070.2	2,389.4	2,772.4	2,879.3
Freight miles (millions)	408.1	368.6	381.2	456.8	435.6

Ports

Chief ports are Chittagong and Khulna. A modern seaport being developed at Mangla. Shipping is crucial for imports and exports.

Chittagong

Lat. 22° 18' N; long. 91° 50' E. About 14.5 km up the Karnafuli River.

Accommodation: There are three bars (shoals) in the river at distances of 0.8, 1.6 and 7.6 km from the river mouth. Channel width for navigation is 243.83 m. R. of T. 4.88 m (spring tides) and 2.43 m (neap tides). Vessels of 6.40 to 8.23 m draft can usually enter at high tide. The permissible draft is calculated by the Chittagong Port Trust 3 months in advance. Vessels unable to enter because of draft may lighten in outer anchorage marked "A", about 3 km from river mouth. Jetties Nos. 4, 5 and 6 dismantled for reconstruction; jetties Nos. 1 and 2 to be dismantled for reconstruction; jetty No. 3 to be extended in width. Three moorings for general cargo vessels but RM 2 not in use. Vessels up to 170.68 m in length can be berthed at jetties Nos. 17, 13 and oil mooring Nos. 1 and 4. Oil mooring No. 1 can also be used for the discharge of bulk edible oil. At grain silo main jetty, vessels up to 156.96 m can be berthed and at grain silo light jetty, coastal vessels can be berthed. Channel in the river is marked by 10 buoys; leading light beacons at Dize Diamond, Middle Island, Coombs Pillar and Gupta Point.

Storage: Covered storage space within port protected area 133,870 sq m for 120,000 tons of cargo including grain, cement and fertilizers; covered space outside protected area 18,600 sq m for 13,000 tons of cargo. Open space within protected area 186,000 sq m for 100,000 tons of cargo; open space along river bank for storage of 200,000 tons of coal. Grain silo of 200,000 tons capacity.

Water: Available at jetties and from barges.

Bunkers: Available.

Development: The Master Plan of Chittagong Port includes improvement of present facilities, operating conditions and new facilities.

Of the Third/Five Year Plan projects, re-habilitation and extension of old jetties, construction of work ship and slipway; off-shore oil terminal, widening of roads within jetty area and improvement of low lying places for storage. Construc-

tion of a lighterage jetty, construction of residential accommodation for staff already in progress. The following schemes are expected to be adopted during this period. Construction of two new jetties and replacement of jetties 14 to 17, construction of new warehouses and transit sheds, river training works, procurement of floating craft. Harbor craft including navigational aids, shore electric cranes and mechanical equipment.

Ship repairs: Slipway for vessels up to 250 tons available; repair works undertaken by private marine workshops and by Port Trust Workshop which has a chain testing shop facility 12,000 tons capacity dry dock under construction.

Towage: Three tugs of 618, 588 and 565 b.h.p. available plus several other tugs and harbor craft.

Pilotage: Available by day.

Airport: Local: Patenga, 8 km; N.I.A.: Dacca International Airport, approx. 320 km.

Working Hours: 07:30 to 12:00, 13:30 to 17:00; Night shift: 20:00 to 04:00 every day except Friday. Friday: 07:00 to 12:00, 14:00 to 17:00.

Khulna (Chalna)

Chalna anchorage on River Pussur, lat. 22° 35' N; long. 89° 32' E. Khulna lat. 22° 48' N; long. 89° 35' E. Anchorage is 40 km below Khulna town.

Accommodation: Fifteen swinging moorings and unlimited anchor berth. An anchorage port only, no jetties or wharves being available in harbor at present. Depth in approaches 5.18 m; at four crossings inside the channel 6.10 m to 7.01 m; in the harbor, 6.10 m minimum and 18.29 m maximum. Ships of any length up to 7.62 m S.T. drafts can enter. All depths given on L.L.W. No restriction on length of vessels entering harbor.

No mechanical cargo handling equipment or storage available at the anchorage. An import jetty at Khulna is available providing transit sheds, modern cargo handling equipment and other attendant facilities for handling imports, which will be brought in bond in lighters from Khulna. Accessible by rail, road and river. Two powerful seagoing tugs available for rendering assistance to ships in emergency. One anchor hoy fitted with powerful fire-fighting appliances can also be made available to meet emergencies at short notice. IWTA 60-ton salvage crane with a tug also available. Cleaning contractors available. Assistant Harbor Master's Office located at Mongla where necessary information regarding sailing, berthing and shifting is available. Privately owned ferry services available between anchorage and Khulna Town; duration of journey, three hours each way.

Provisions: Provisions both fresh and dry supplied through ships' chandlers.

Water: Fresh water for ships is available as required with at least 24 hours notice.

Bunkers: Coal available in limited quantities. Fuel oil can be brought from Chittagong only.

Development: The construction of the permanent port facilities has already begun on the East Bank of the Pussur River. First phase of scheme would provide four general cargo berths, one grain terminal and two bulk feeder cargo terminals with transit sheds, warehouses and cargo handling equipment also one repair berth and workshop. Two general cargo berths have been completed and it is expected that the remaining facilities will be completed by 1980.

Shiprepairs: Minor repairs can be arranged through Khulna Shipyard.

Towage: Two tugs available for emergencies.

Pilotage: Vessels calling Chalna should contact pilot station, call sign ASV 1, and Port Khulna via Khulna radio, call sign S3E.

Traffic: - 1976 - 7,406 vessels, total cargo handled
1,084,946 tons.

Airport: Jessore Airport, 64 km, from Khulna.

Local Holidays: Eid-ul-Azha, Moharrém, Eid-i-Miladuñ Navi,
Independence Day, Jámát-ul-Bida, Eid-ul-Fitr.

Working Hours: Around the clock.

Cargo Worked: 1,500 tons in an 8-hour shift.

International Sea-Borne Shipping
(Freight traffic in '000 long tons)

	<u>Goods Loaded</u>			
	<u>1973/74*</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>
Chalna	502	494	627	681
Chittagong	262	258	365	511
Total	<u>764</u>	<u>752</u>	<u>992</u>	<u>1,192</u>

	<u>Goods Unloaded</u>			
	<u>1973/74*</u>	<u>1974/75</u>	<u>1975/76</u>	<u>1976/77</u>
Chalna	1,058	1,041	900	404
Chittagong	4,309	4,241	4,114	2,936
Total	<u>5,367</u>	<u>5,282</u>	<u>5,014</u>	<u>3,340</u>

* Figures refer to '000 metric tons.

Waterways

75% of goods and people, more in flood season, move by water. 5,000 miles of navigable waterways on which are located the main river ports of Dacca, Narayanganj, Chandpur, Barisal and Khulna. A river steamer service connects these ports several times a week. Vessels up to 575' can be maneuvered on Karnaphuli River.

Inland waterway controlled by the Bangladesh Water Transport Authority (WTA, with UN assistance WTA currently trying to mechanize the approximately 300,000 wooden country boats.

The largest transport organization in country, with 639 vessels, is the Bangladesh Inland Water Transport Corp. (BIWTC), a private agency created in 1972 to introduce modern vessels and improve water transport system.

Airports

NB: For up-to-date information consult latest issue of weekly International Notams, International Flight Information Manual, and/or ICAO's Air Navigation Plan for appropriate region.

<u>Location</u> <u>Coordinates</u>	<u>Eleva-</u> <u>tion M/</u> <u>Temp C</u>	<u>Runway Characteristics</u>			<u>Fuel/</u> <u>Octane</u>
		<u>NR/Type</u>	<u>Slope</u> <u>%</u>	<u>Aircraft/</u> <u>Length M</u>	
Chittagong/ Chittagong					
22°16'30"N 91°49'30"E	4 32.3	05/23	2286	A A UW54	100, JX

Remarks: Alternate Aerodromes: Akyab/Akyab, Dacca/Dacca, Dacca/Kurmitola.

Aids: RVOR, LVA, LR, LTX, LB, LO, MD, MC, MT, MFD, MTX, MO, H75, L4. No telex. Fuel available on prior request.

Dacca/ Dacca					
23°46'10"N 90°23'20"E	8 34.4	17/35	0.06 2743	A LCN83	100, JX

Remarks: Alternate Aerodromes: Bangkok/Bangkok Intl., Calcutta/Calcutta, Chittagong/Chittagong, Rangoon/Mingal adon.

Aids: ILS 17-1, RL, LSA 17, LVA 35, LR, LTX, LB, LO, MD, MC, MT, MTD, MFD, MTX, MO, H90, L4, 5. No telex. Fuel available on prior request.

* Key

INSTR - Instrument Approach Runway
N-INSTR - Non-Instrument Runway

Radio Aids

ILS - Instrument Landing System
DME - Distance Measuring Equipment
VOR - VHF Omni-Directional Range

Lighting Aids

PA - Precision Approach Lighting System
SA - Simple Approach Lighting System
VA - Visual Approach Slope Indicator System
AV - Abbreviated Approach Slope Indicator System
R - Runway Edge, Threshold & Runway End Lighting
C - Runway Center Line Lighting
TD - Runway Touchdown Zone Lighting
TX - Taxiway Lighting
B - Aerodrome or Identification Beacon
O - Obstruction Lighting

Marking Aids

D - Runway Designation Markings
C - Runway Center Line Markings
T - Runway Threshold Markings
TD - Runway Touchdown Markings
S - Runway Sidestripe Markings
FD - Fixed Distance Markings
TX - Taxiway Center Line & Holding Position Markings
O - Obstruction Markings

Key (cont'd)

Additional Lighting

1. Portable Runway Lights (electrical)
2. Boundary Lights
3. Runway Flood Lights
4. Low Intensity Runway Lights
5. Low Intensity Approach Lights
6. High Intensity Runway Lights
7. High Intensity Approach Lights
8. Sequenced Flashing Lights
9. Visual Approach Slope Indicator (VASI)
(an asterisk (*) preceding the element (L*4) indicates lighting available on prior request by phone, telegram, etc.)

Personal Entry Requirements

Passport and visa required. Check specific requirements with the embassy of the People's Republic of Bangladesh, Washington, D.C. 20036, or consulate general, New York 10016.

See also Travel and Visa Information

Aircraft Entry Requirements

All private and non-scheduled commercial aircraft overflying or landing for commercial or non-commercial purposes must obtain prior permission from the Director General of Civil Aviation, Dacca Airport, Dacca 15, Bangladesh (telegraphic address: CIVILAIR DACCA/TELEX: None) at least 72 hours prior to departure. All requests must include (a) name of operators, (b) type of aircraft and registration marks, (c) dates and times of arrival and departure, (d) places of embarkation abroad of passengers and cargo, as the case may be, (e) purpose of flight, (f) number of passengers and type and amount of cargo, (g) name, address and business of charterer, if any, (h) complete route of flight, (i) type and amount of fuel required.

Special Notices

1. All aircraft landing for non-commercial purposes must provide at least 6 hours prior notice to the airport manager at the airport of intended landing. All messages must include the same information as required by the Director General of Civil Aviation listed above.
2. Non-scheduled commercial aircraft anticipating loading passengers or cargo originating from Bangladesh may do so only with the prior approval of the Director General and the National Carrier of Bangladesh.

Airlines

International connections made by seven international carriers through Dacca, principal airport.

Bangladesh Biman, National Airline, operates 3 Boeing 707, 1 DC-8, 8 Fokker Friendship Aircraft. Services to London, Rangoon, Bangkok, Karachi, Dubai, Bombay, Kathmandu, Singapore and Calcutta.

In country service connections at Chittagong, second largest airport, and lesser airports at major towns.

Air Distances*

From Chittagong (Patenga) to:

Cox's Bazaar.....	57
Dacca.....	139
Jessore.....	180
Karachi.....	1,571
Rangoon.....	464
Shamsheimgar.....	160
Singapore.....	1,657
Sylhet.....	181

Air Distances* (cont'd)

From Dacca to:

Delhi.....	887
Ishurdi.....	87
Jessore.....	87
Hong Kong.....	1,515
Kailasharhar.....	110
Karachi.....	1,464
Kathmandu.....	415
Lahore.....	1,115
Panagarh.....	188
Rangoon.....	603
Shamsheimagar.....	108
Sylhet.....	125

Note: The distance from Shamsheimagar to Sylhet is 27 miles.

* In Statute Miles

Electric Power

Hydroelectric plant at Kaptai on the Karnaphuli River supplies 1/5 of electric power (355 million kwh). Other electric power stations include Siddhirganj (80 mw), Ashuganj (120 mw), Ghorasal (110 mw), Shahjibazar (1,000 mw), Khulna (60 mw) and Bheramara (40 mw). Installed capacity in 1976 755,000 kw; production was 1,378 million kwh, with per capita consumption at 15 kwh. Industrial and commercial consumption accounts for 77% of total. Less than 3% of 65,000 villages are electrified and only 4% of total population has access to electricity.

Electricity supply: 220 volts AC, 50 cycles.

Other power sources:

Natural gas - major energy source; 7 fields with proven reserves of 250 billion cu. meters.

Coal - about 700 million tons at Jamalpur. No oil.

Radio Network

Bangladesh, Radio Stations, 1974

<u>Location</u>	<u>Frequency</u> (In Kilohertz)	<u>Power</u> (In Kilowatts)
Mediumwave		
Chittagong	850	10
Dacca	690/1	100
Dacca	1,170	5
Khulna	1,345	10
Rajshahi	1,080	10
Rangpur	1,050	10
Sylhet	1,140	

Shortwave/2:

1/ A new transmitter to operate on 690 kilowatts and 1,000 kilowatts was being installed in Dacca 1974.

2/ Principally for overseas calls. Three transmitters in Dacca; power

output in watts is: 100, 10, and 7.5. Frequencies utilized (in kilohertz) are: 4790, 4890, 6015, 7250, 9580, 11650, 15455, 15520, and 17690.

Note: Rajshahi, Khulna and Chittagong have independent broadcasting facilities. Radio Bangladesh: Mymensingh Rd., Dacca, broadcasts continuously, others from 12:30 AM to 5:30 PM. Shortwave transmitters in Dacca broadcast for about 12 hours daily to Europe, Middle East and Southeast Asia.

<u>Location</u>	<u>Frequency</u> (In Kilohertz)	<u>Power</u> (In Kilowatts)
Frequency Modulation (FM) (In Megahertz)		
Chittagong	105.5	2
Dacca	100, 101.5, 102.5	2
Dacca	104.0	1
Rajshahi	103.0	2
Sylhet	106.5	2

Personal contacts, verbal interchanges, augmented by battery-operated radios, are chief means of communication. Telecommunication managed by Ministry of Posts, Telephones and Telegrams.

Radio Bangladesh: Mymensingh Rd., Dacca, broadcasts continuously, others from 12:30 AM to 5:30 PM. Shortwave transmitters in Dacca broadcast for about 12 hours daily to Europe, Middle East and Southeast Asia.

500,000 licensed and 200,000 unlicensed radio receivers in late 1974. Audience approximately 10 million. Radios almost everywhere.

Telephone Network

80,100 telephones in 1976 (.9 per thousand population). 96 telegraph offices co-located with postal system and direct international teletype and telephone connections in Dacca and Chittagong. International communication by satellite link via Chittagong and Indian Ocean Intelsat IV satellite.

Television

Center in Dacca (1975) with new equipment, multiple studios, and auditorium. One government station broadcasts 5 hours in evening and 1 1/2 hours on Sundays. Transmissions also from stations at Chittagong, Khulna, Natore, Sylhet; stations planned at Noakhali, Mymensingh and Rangpur to be opened by end of 1980. Bangladesh Television (BTV): Television Bhawan, P.O.B. 456, Rampura, Dacca. Number of sets about 50,000, potential audience 200,000+ persons.

Checklist

Outside of Dacca diesel fuel available only.

370,000 Burmese and Bihari refugees have created major health, food and housing problems; gradual repatriation is in progress.

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Please use this form to note any changes, additions, corrections or suggestions you think would update and improve this country profile. Since our aim is to make these profiles as relevant as possible, your critique is essential and very much wanted. Return comments to Lucy Drobot, OFDA Country Profiles, Room 1262A.

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