

バングラデシュ
洪水災害支援
プロジェクト形成調査結果資料
(内部検討資料)

平成10年9月

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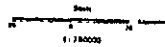
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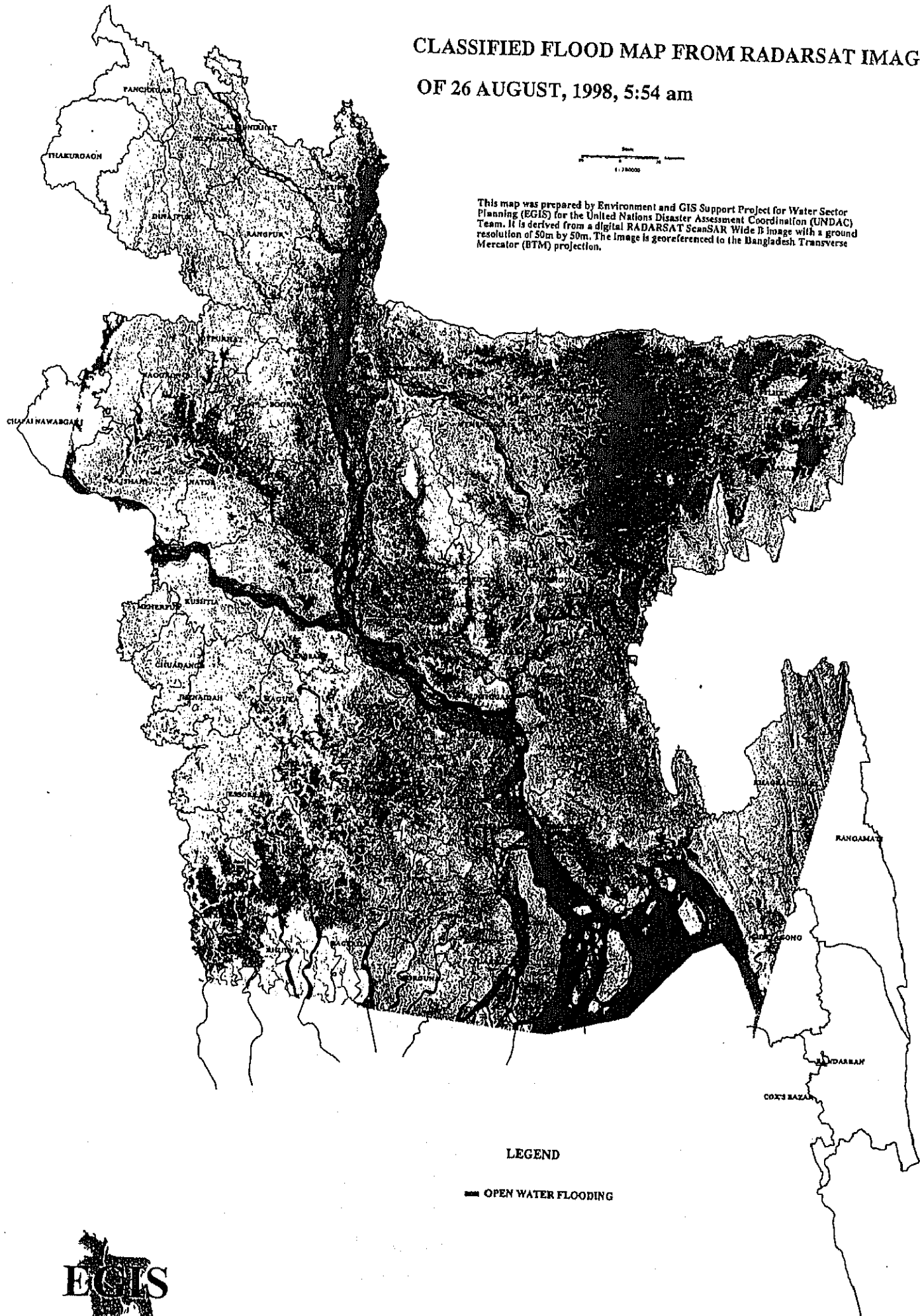
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**CLASSIFIED FLOOD MAP FROM RADARSAT IMAGE
OF 26 AUGUST, 1998, 5:54 am**



This map was prepared by Environment and GIS Support Project for Water Sector Planning (EGIS) for the United Nations Disaster Assessment Coordination (UNDAC) Team. It is derived from a digital RADARSAT ScanSAR Wide B image with a ground resolution of 50m by 50m. The Image is georeferenced to the Bangladesh Transverse Mercator (BTM) projection.



LEGEND

 OPEN WATER FLOODING





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1. 調査の目的・背景、調査団構成、日程

1-1 調査の目的

「バ」政府及び国連から支援要請アピールがなされた今次の洪水被害に対し、緊急・短期的に日本側で対応可能な協力内容について具体化を図ることを目的とする。あわせて中長期的な支援について、可能な範囲で情報収集を行い、協力の方向性を検討する。

1-2 調査の背景

バングラデシュは大きくガンジス河下流平野部とチッタゴン丘陵部に分けられ、全国土面積の90%近くを占めるガンジス河下流平野部はガンジス河、ブラマプトラ（ジャムナ）河、メグナ河に囲まれた世界最大のデルタ地帯であり、そのほとんどは海拔10m未満の低湿地となっている。同国の中心を流れる上記3河川はいずれもが国際河川であり、上流集水域は広大かつ、世界有数の多雨地帯という地理的状况、年間降雨量の85%が雨期に集中する気候条件、またバングラデシュ国内でのこれら河川勾配が極めて緩慢であることなどから、これまで頻繁に洪水被害を受けてきており、特に80年代以降は規模の大小はあるにせよほぼ毎年恒常的に洪水被害を受けてきている。

今次洪水は7月中旬から発生し、当初は8月末までには平常水位に戻ると見込まれていたが、過去にも例を見ない2ヶ月近い連続豪雨により、洪水被害の規模はこれまでの記録上最大級の規模となっており、また9月末までは完全に水が引く可能性は無いと予測されている。長期間の冠水は道路、堤防等の構造物の被害をさらに拡大し、また水上あるいはシェルターで生活する市民の健康状態に大きな影響を与えている。

こうした背景の下、8月26日になり「バ」政府は国際社会に対し、洪水被害に対する緊急・復旧援助として、573百万US\$の資金援助、137.7万tの食糧援助、5.7万tのシェルター-建材（C.I.シート（波形鉄板））（各省庁別緊急復旧対策費の積み上げ）についてアピールを行った。また、9月4日には国連OCHAより、社会的弱者を対象とし、当面3、4ヶ月間に必要とされる緊急的な援助(食糧、医薬品、シェルター)ならびに水が引いた直後に必要な復旧対策(農業、家屋、上水施設、教育施設・機材)支援のために必要な援助について、とりまとめた形で総額2.23億US\$の援助要請アピールが行われている。

本プロジェクト形成調査はこれらの支援要請アピールに対し、緊急・短期に対応可能な支援内容を具体化することを主目的として、緊急援助チームと合同で調査を実施するものである。

なお、今次の「バ」洪水被害に対し、これまで我が国政府はプラスチックシート、医薬品医療資材、浄水剤（輸送費を含め総額3,000万円）の物資供与を既に実施済みである。

1-3 調査団構成

1. 団長（総括） 坂本 秀之 外務省経済協力局開発協力課長
2. 無償資金協力 伊藤 和久 外務省経済協力局無償資金協力課課長補佐
3. 洪水災害復興対策 黒元 重雅 国土庁防災局防災調整課長
4. 洪水災害復旧計画 渡辺 正幸 JICA国際協力専門員
5. 調査企画 荒津 有紀 JICA基礎調査部基礎調査第2課課長代理
6. 二国間関係 坂田 奈津子 外務省アジア局南西アジア課事務官
(坂本団長、坂田団員については外務省予算にて参団)

(緊急援助チームメンバー)

7. 国際緊急援助 富永 純正 外務省経済協力局緊急援助室課長補佐
8. 国際緊急医療 國井 修 厚生省国際医療センター国際医療協力局
9. 災害援助 青木 利通 国際協力事業団緊急援助隊事務局災害援助課長

1-4 調査行程

- 9月18日(金) 東京→→バンコク
- 19日(土) バンコク→→ダッカ
16:30 在バングラデシュ日本大使館・JICAバングラデシュ事務所との打ち合わせ
- 20日(日) 10:00 大蔵省対外関係局(ERD)及び関係省庁との打ち合わせ
12:30 USAID主催昼食会(団長のみ参加)
14:00 水資源省次官との協議
15:30 地方自治・農村開発協同組合省技術局(LGED)局長との協議
17:30 運輸省道路局局長との協議
(緊急援助チーム)
14:00 保健家族福祉省次官補との協議
- 21日(月) 10:00 UNDP所長との協議
11:00 FAO所長との協議
11:30 WFP所長との協議
(緊急援助チーム)
10:00 国際下痢研究所との協議
11:30 ダッカ医科大学との協議
14:00 WHO所長との協議
(両チーム合同)
15:30 UNICEFとの協議

- 22日(火) 06:30 セスナ機によるダッカ近郊洪水被害状況視察
 09:30 DND地区輪中堤、ナルシンジ地区道路被害状況視察
 (緊急援助チーム)
 06:00 チャンドプール地区医療活動状況視察・協議
- 23日(水) 09:30 大蔵省次官表敬・調査結果報告
 10:00 ERD及び関係省庁とのラップ・アップ協議
 ダッカ→→バンコク→→
- 24日(木) →→東京

1-5 主要面談者リスト

Dr. Masihur RahmanRahman, Secretary, Economic Relations Division(ERD), Ministry of Finance
 Mr. Suhel Ahmed, Additional Secretary, Economic Relations Division(ERD), Ministry of Finance
 Dr. Shamusul Huda, Secretary, Ministry of Water Resources
 Mr. Quamrul Islam Siddique, Chief Engineer, LGED
 Mr. Abdul Wadud, Chief Engineer, RHD
 Mr. Hiroyuki Konuma, Representative, FAO
 Mr. Werner Kiene, Representative, WFP
 Mr. Joan Fleuren, Deputy Representative, WFP
 Ms. Shahida Azfar, Representative, UNICEF

在バングラデシュ日本大使館
 金子 義和 特命全権大使
 神宮 浩 一等書記官
 富田 晃次 二等書記官
 石田 樹 二等書記官
 山内 洋一 二等書記官

JICAバングラデシュ事務所
 岡崎 有二 所長
 久津名 博之 次長
 木邨 洗一 次長
 伊藤 耕三 所員

2. バングラデシュ洪水被害の現状

今回の洪水は、7月中旬頃から2ヶ月以上にわたり降り続く豪雨により、河川水位は継続して上昇し、複数の観測点において近年において最も大規模であった1988年の洪水を超える水位を記録しており、今世紀最大の洪水となっている。洪水の被害地域はバングラデシュ64県のうち52県、国土の約6割が冠水している状況にあり、一面の海の中に島が点在するというような状況となっている。

「バ」政府災害対策・救援省の9月17日付けの発表によれば、人的被害については、死亡者(溺死等)が813名、被災者総数約3,091万人、下痢性疾患患者25.4万人(7月15日以降の下痢症による死者227名)となっている。9月中旬をピークに水量は徐々に減少傾向にあり、洪水は収束の方向に向かいつつあるが、一方で、今次洪水期間が2ヶ月を越える長期に渡っているため下痢性疾患患者数及び死者数は急増してきている。給水施設の損壊・汚染等もあり、洪水明け後もこれら給水施設の復旧までの間にはさらに下痢症・感染症疾患患者数が増えることが懸念されており、これらの対策は緊縛の課題となっている。

物的被害については、被害家屋数が98万戸、農作物被害面積142万エーカー、道路被害6,795箇所、堤防被害4,506km、家畜被害24,596頭、学校被害1,682箇所が報告されている。特に道路網については、ダッカを中心とする放射状の基幹道路についても冠水し、緊急物資の地方への配給にも支障を来しており、さらに地方道路については寸断された箇所も多く被害は甚大であり、今後復興対策の大きな課題となっている。

なお、インフラ等物的被害の状況については水が未だ十分に引いていない中で完全に把握できていない状況にある。これら本格的な復旧はさらに水が引いた後から開始される必要があり、「バ」政府としても国家開発計画の見直しを行い、復旧に向けて国家予算の大きな振り替えなどを余儀なくされる見通しにある。

バングラデシュ政府は今次洪水被災対策として、これまで国内2,716箇所に避難シェルターを設置し、約105万人を収容しており、さらに現金5,100万タカ、コメ8.1万トン、小麦、衣類、ビスケット等の被災者への支援物資の供給を実施している(9月17日現在)。

また、9月16日付のOCHAの報告によれば、既に30を越える国際機関、ドナー国等が緊急援助を表明しており、総額約1億2800万米ドルとなっている。なかでも米国は40万トンの小麦を含め約6600万米ドル、次いで英国が約3900万米ドル、ADBが1200万米ドルとなっている。米国は追加食糧援助の検討を実施するなど更に各国援助額は増加する見通しになっている。

バンダラデシユ被災状況 (災害対策救援省報告)

	9月24日	9月21日	9月17日	9月14日	9月9日	9月6日	9月1日	8月25日
被災県(District)数	52	52	52	50	47	47	45	44
総被害家屋数	980,579	980,571	979,823	867,632	715,212	432,078	380,319	340,517
総被災者数	30,916,351	30,916,351	30,916,351	29,930,146	27,154,866	23,458,713	21,495,474	19,863,279
死者数 (溺死者等)	918	884	813	755	649	584	440	357
下痢症患者数 (7月15日以降死者数)	334,815 (死者367)	294,601 (死者282)	254,019 (死者227)	218,266 (死者181)	169,171 (死者134)	152,652 (死者116)		
道路被災延長	15,927km	15,927km	15,911km	15,896km	14,557km	11,273km	9,594km	9,467km
橋梁(Culvert含む)被災 箇所数	6,890カ所	6,890カ所	6,795カ所	6,095カ所	5,576カ所	4,942カ所	4,655カ所	6,444カ所
堤防被害	4,528km	4,528km	4,506km	4,343km	4,087km	4,257km	4,148km	3,912km
学校・教育施設被災箇 所数	1,718カ所	1,718カ所	1,682カ所	1,669カ所	1,576カ所	1,092カ所	1,052カ所	903カ所
農作物被災面積	1,423,320ヘクタ (5,760Km ²)	1,423,320ヘクタ (5,760Km ²)	1,423,320ヘクタ (5,760Km ²)	1,391,481ヘクタ (5,600Km ²)	1,092,450ヘクタ (4,400Km ²)	668,929ヘクタ (2,700Km ²)	599,127ヘクタ (2,700Km ²)	506,910ヘクタ (2,700Km ²)
家畜被災頭数	26564頭	26,564頭	24,596頭	22,344頭	16,513頭	13,188頭	13,014頭	11,978頭
シエルトー設置数	2,716	2,716	2,716	2,559	1,110	898	762	553
シエルトー利用者数	1,049,525	1,049,525	1,049,525	966,567	486,929	350,724	261,411	203,370
支援物資供給 (現金)		5170万ドル	5,100万ドル	5,070万ドル	4,830万ドル	4,715万ドル		4,250万ドル
支援物資供給 (米)		88,477ト	81,443ト	79,743ト	73,318ト	69,818ト		65,118ト

3. 今後の協力の方向性

3-1 今後必要とされる援助の内容

3-1-1 緊急に必要な援助

(イ)食糧

食糧については、8月作付けのアモン米が大きな打撃を受け、約430万トンの穀物(コメ、小麦)が不足している。内訳は洪水による被害が220万トン、通常の不足分は210万トンである。これに対し、バ政府は100万トンのコメを輸入で調達する計画、加えて民間でのコメ輸入は100万トンと推定され、政府・民間あわせて200万トンを調達する見込み。さらにドナーから現在までにコミットされた援助140万トンを加え、合計340万トンの調達が見込まれており、残り90万トンが不足している。(但し、現状では農民が保管している次期乾期作のボロ米種籾への被害状況が不明であり、さらに不足量見込みが増大することも懸念されている。)

アモン米の打撃の下、「バ」政府にとり12月作付けのボロ米や野菜などの作付けを効果的に実施するが必要ある。ボロ米の収穫は明年4月以降となることもあり、明年3月頃までの食糧確保が最も大きな課題となっている。これらの観点からコメ・野菜・トウモロコシなどの種子や単位収量増大のための肥料の確保も重要となっている。なお、食糧援助については緊急対策の観点のみならず、洪水期間中に収入源を失った貧困層への支援、インフラ復旧活動への労働力投入(Food for Works)の観点よりも重要。

(ロ)医薬品

下痢症患者やコレラ患者等は水が引くにつれ増大していく可能性があり、患者治療のための医薬品のみならず、栄養確保のための食糧(ビスケットなど)、感染症防止のための各種医薬品が必要。特に、洪水明けた後、当分の間は井戸水消毒用のさらし粉(Bleaching Powder)の投入を通じた浄水の確保が不可欠であり、さらし粉の需要は高い。

(ハ)家屋

乾季(冬季)を直前に控えて「バ」側としては被災後の家屋対策として、64百万ドル相当のCIシート(波形鉄板)を必要としている。

3-1-2 中長期的に必要な援助

道路、橋梁、堤防、農業施設や教育施設等の多種にわたるインフラの復旧が必要とされる。被害の全体像は依然不明であり、水がひいた後に各省庁別に被害状況が精査される予定であるが、とりわけ道路・橋梁などのインフラへのダメージは大きく、復旧へのボトルネックとなっており、主要輸送路の修復などは緊要と考えられる。国連OCHAの報告によれば、特に、学校、医療施設、都市上・下水道施設(特にダッカ)、重要インフラ(ダッカーチッタゴン間道路等)が緊急復旧が必要なインフラとされている。

今後、「バ」側はドナー諸国との間で主要セクターの復旧計画につき話し合いを進めたい

との意向を有している。

3-2 我が国援助の可能性

洪水対策として、バ政府関係機関及び国際機関等からの事情聴取及び現地視察の結果を踏まえ、我が国の緊急援助、短期、中長期に可能と考えられる対策は次のとおりである。いずれの対策も早急に実施あるいは検討を開始することが必要であり、援助の実施に要する時間を短縮するよう努力する。

3-2-1 緊急援助

(イ)国際緊急援助隊の派遣

既に下痢症患者数の急増傾向が見られ、またダッカ都市部ではコレラ等感染症の発症例もでてきており、今後感染症患者の大幅な増加が懸念されることから、感染症予防対策のため公衆衛生専門家を中心とする医療チームを医薬品と共に派遣する事が有益である。

(ロ)緊急援助物資供与(約3千万円)

緊急用としての医薬品、栄養確保食糧(ビスケットなど)を中心に供与する。

(ハ)緊急無償

先方に対しては口上書にて、先方が緊急に必要なとする物資購入のための緊急支援を伝えた。使途品目は、事情聴取の結果より、医薬品を主とする。本援助についても早急に実施する必要があると考えるが、今次洪水は「バ」において今世紀最大の規模であることも十分考慮し、更に金額の上乗せを考慮する必要がある。

(ニ)草の根無償(約4千万円)

既に大使館に対しては相当数の援助要請が接到しており、NGO、地方公共団体、病院等に対し、1件当たり1千万円程度を限度に、早急に請訓のうえ実施を検討する。

3-2-2 短期的援助

(イ)債務救済無償

9月21日に平成10年度第2回目のE/N署名(約48億円)がなされた、購入品目も従来の35品目に加え、3品目(CIシート(波形亜鉛鉄板)、アスファルト、ベイリー橋)を追加した。本件は現在「バ」政府の課題となりつつあるB/Pサポートにも資するものであり、今後、災害対策に必要な機材の購入に充てるよう、「バ」政府へ申し入れた。

(ロ)債務救済無償の見返り資金の活用

平成10年6月30日現在で255億円相当の内貨があることが判明した。しかしながら実際の運用は毎年2,000百万タカ(約60億円)のみ使用可能であり、すでに16プロジェクトについて使途協議を開始しているが、これについても緊要でない限り、災害対策に必要な案件に充てるよう、バ政府へ申し入れた。

(ハ)食糧援助

当初に予定していた援助額を増額することを検討のうえ、早急に実施することが必要である。また、これまで小麦の要請が提出されていたが、コメの不足を考慮し、援助品目をコメへ変更することが妥当。なお、食糧ギャップは依然大きく先方の希望数量との観点で大幅な増額の可能性を検討する必要あり。また、特にタイミング(明年3月頃まで)が重要であり、その手続きの迅速化をはかる。

(ニ)国際機関を通じた拠出

日本のフラッグを付けた援助を検討する。特にインフラ復旧の労力に対する食糧供与との観点でのWFPとの連携やFAOとの連携を追求する。

3-2-3 中長期的援助

(イ)一般無償

11年度の実施を念頭においた交通、インフラ復旧や医療、教育等の案件(ポスト・フラッド案件)として、簡易道路橋資機材供与計画、貧困地域住宅整備計画、子供の健康無償(医薬品の供与)、多目的シェルター(洪水シェルター)建設計画、道路復旧機械供与計画、病院、学校、農村基盤復旧改善計画等が想定される。バ政府側に対し、必要な案件の優先順位を付けた上で、我が方へ要請越すよう申し入れた。他方、事態の深刻さに鑑み、少なくとも子供の健康無償、及び道路簡易橋機材供与計画については本年度実施のため最大限の努力を図ると共に11年度案件についても部分的にも11年度早々にE/Nが締結しうるタイミングで作業を進める必要がある。

(ロ)食糧増産援助

既存機材の使用状況や計画上の位置付けなどを調査する事を検討。他方、本分野もタイミングが重要であり国際機関(FAO)にモニタリング等の協力を得て実施を検討する。

(ハ)円借款

現在実施中のジャムナ橋アクセス道路については円借款の枠内で道路リハビリへの我国貢献としてカウント可能(約16億円)、また、今年度案件については洪水を踏まえて要請案件の見直しを行いプレッジに持っていく。

(ニ)その他

洪水早期予警報機材の追加供与の可能性、洪水対策(河川浚渫)の実証検討(共同研究等)について可能性を検討する。

4. 協力を進めるに当たっての留意事項（団長所感）

今次洪水はその被災地域の大きさ及び長期間に渡るものであるとの点で「バ」にとり今世紀最大のものとなった。88年時に比較し、都市防護型堤防、早期警報システムの形成などにより被害者数自体は現在のところ抑えられているが食糧生産、道路等のインフラに大きな被害をもたらした「バ」経済に対し多大な負担をもたらしたと言える。また、このような状況の中で「バ」政府としても復興の為に開発予算の振り替えなどの緊急事態に直面している。

本年8月の「バ」政府の緊急アピールを踏まえ、食糧援助など各国は「バ」に対する支援を強化してきており、我国としても追加支援につき早急に手を打つ必要がある。その際、当面、医療・食糧・住居面へのニーズが緊急性を持つが、更に中長期的にはインフラの修復などにおいて我国協力への期待は大きいものと思われる。具体的支援を行うにあたって債務救済無償及び見返り資金の規模が極めて大きく、右が当面緊要である物資(CIシート、種、肥料、ポンプ、リハビリ材料など)の購入にできるだけ活用させる事が重要である。この点については「バ」側に対し繰り返し強調し、先方としても今後ともかかる物資購入に重点を置きたいとの姿勢を見せているところ、右品目リストなどについては我方と事前の調整を行っていく必要がある。

他方、今後「バ」政府が各種復旧に向け多くの財政負担を余儀なくされている状況に鑑み、医療・食糧面での最大限の努力を払うと共に、インフラ修復案件などのできるだけ前倒しの協力を進めていく必要があると思われる。

(別添資料)

我が国の対バングラデシュ洪水追加支援

平成10年9月28日

外務省経済協力局

1. 被害の現状等

- ・洪水被害地域は「バ」にとり、水量及び長期間（3ヶ月）にわたる点で1988年を越える今世紀最大（国土の約6割が冠水）。9月中旬をピークに水量は減少しつつあるも、医療、食糧分野において緊急に不足しているのみならず、道路、橋等インフラをはじめ「バ」経済全体に大きな被害。
- ・本年8月末時点で我が国は他のドナーに先駆けて第一回目の緊急支援（医薬品、ビニールシート等約3,000万円相当の物資供与）を実施し、「バ」側より高い評価。他方、事態の悪化に伴い追加支援が緊要のところ、9月19～23日調査団を現地に派遣。

2. 我が国の今後の追加支援

我が国としては、以下のとおり、国際緊急援助隊専門家チームの派遣を含め医療、食糧等を中心に約16億円（約1,200万\$）規模の追加支援を行う予定。また、災害対策機材等の購入のため債務救済無償等を通じ約108億円（約8,000万\$）が活用される見通し。

(1) 国際緊急援助隊専門家チームの派遣

- ・公衆衛生専門家を中心としたチーム（6～10名）を10月2日本邦出発を目処に調整中（派遣期間は10日間程度を予定）。
- ・被害が甚大で感染症対応が遅れている地域（例：CHANDPUR県（人口200万人））において水の検査を含む感染症対策についての助言、地域住民への浄水剤等の供与及び汚染水の処理方法の巡回指導等行う。

〔なお、右専門家チームの活動中に現地で大規模な感染症が発生した場合は、引き続き医療チームの派遣を検討する。第2次チームの派遣については、このチームの現地での活動等を踏まえた上で検討する。〕

(2) 医薬品等の供与

(イ) 緊急援助物資の供与（約3千万円）

- ・感染症対応の医薬品（点滴液、ORS、浄水剤、抗生物資等）の供与。上記（1）の専門家チームが携行、配布出来るように手配する。

(ロ) 緊急無償（約40万ドル）

- ・医薬品等を中心とした供与。

(ハ) 子供の健康無償を通じた医薬品の追加供与の検討（約3～5億円程度）

(3) 食糧の供与

食糧援助（KR／約10億円）

- ・米の供与を検討。

(4) 草の根無償を通じた支援（約4千万円）

- ・現地で支援活動を行っている我が国NGO（シャプラニール等）を中心に支援（物資支給、井戸の修理等）。

(5) その他

(イ) 債務救済無償（今年度第2回目：約48億円）及び見返り資金（約60億円）の活用

- ・災害対策に必要な機材等（C1シート、ポンプ、種子、肥料等）の購入を中心に充当（第2回債務救済無償につき9月21日現地でE/N署名）。

(ハ) 復旧

- ・なお、橋梁等インフラ復旧等の復旧ニーズが高いことに鑑み、今後の無償、円借案件の見直しを行い、復旧案件を重視しつつ今年度及び来年度に協力していく方針。

(参考)

- ・溺死等の死亡者1,000名以上、被災者総数約3,091万人、下痢性疾患患者約26万人以上（病気が増えつつある）。被害家屋数約98万戸、農作物被害面積約142万エーカー、道路被害6,795箇所、堤防被害4,506km、家畜被害24,596頭、学校被害1,682箇所。（以上「バ」政府災害対策・救援省発表（全体の被害状況については、水が引くのを踏まえ行われる見通し。））
- ・「バ」政府としては、今次洪水の被害の大きさに鑑み、国家開発計画及び予算の組み替えを行っている他、ドナー諸国に対し緊急支援アピールを发出。
- ・「バ」は同地域の大河3河川の河口に位置し、今年においては上流地域（インド、ネパール、中国）において異常降雨等が発生したことが今次大洪水の主原因。他方、1988年時以降、主要都市の堤防建設（我が国も協力）等を通じ、88年時の死者数（約3,000人）を現時点では下回っている（但し、水がひくにつれ、下痢症、コレラ等が増加）。なお、我が国が協力した早期警報システム（北部1部地域）、メグナ橋、ジャムナ橋等も物流の移動に寄与。

(了)

別添2. バングラデシュ大蔵省経済関係局(ERD)及び関係省庁との合同協議概要

20日(日)坂本団長他団員8名はERD及び関係各省と協議を行ったところ概要は以下の通り。
(在バングラ大使館富田、石田、JICA事務所長、木邨次長伊藤他同席)

1. 債務救済無償の見返り資金全体での協議に先立ちERDアーメド次官補と債務救済無償の見返り資金について個別に協議したところ次の事が判明した。(1)予算の制約から実際に使用可能な見返り資金は年間約20億タカまでである事、(2)8月26日の日本バングラデシュ定期協議の場で16プロジェクト(18.4億タカ)の用途について協議中である事。(バングラデシュ中央銀行の調べでは、6月30日現在で、8,539,534,000タカ、約255億円の残高)

2. 全体協議

引き続き関係省庁を合めた協議に移り、それぞれ説明を受けた。

(1)ERDアーメド次官補より洪水被害の支援に対するアピールの内容について説明をうけ、これに対し、坂本団長より今回の調査の目的(災害状況、洪水状況の把握、緊急的・中長期的に必要な対策の確認)について説明し、医療チームの派遣や医薬品の供与(CIシートなどの不足量等)について調査する予定である旨述べた。

(2)食糧省

米の不足に対しFood for Workが必要な他、深井戸の復旧に10百万米ドル、ポンプ(LLP)に12百万米ドルが必要である。

(3)地方自治農村開発協同組合省

インフラ、水・衛生施設の復旧が必要であり、モデル農村整備計画(フェーズ2)、サイクロンシェルター整備計画、地方住宅計画、簡易道路橋計画(フェーズ2)に80万米ドル、その他小規模橋梁計画、洪水シェルター計画、北部農村インフラ計画等を挙げ、再調整している。また当方よりサイクロンシェルターから洪水シェルターへの無償要請の振り替えについて問うたところ、サイクロン被災は3-5年毎に発生し、死亡率も高く、また洪水地域とは対象が異なることもあり、洪水シェルターとは別途にサイクロンシェルターの整備を進める必要があり、洪水シェルターについては食糧援助の見返り資金の活用を検討する旨回答した。

(4)ダッカWASA

地方給水計画や雨水排水計画など過去に実施した無償案件の復旧が必要とされる。特に最優先プロジェクトとしては、先に無償協力により整備されたバグラ下水処理場及び管路の復旧があげられ、これには12百万ドルが必要。JICAによるF/S実施済みのダッカ北部下水道計画の実施と併せての協力を期待。これに対し当方より具体的な被災状況についてのレポートの提出等を求めた。

(5)水資源省

全体被害状況については世銀と再評価している。最優先課題としては今次洪水で危機的

状況に直面したDND堤防等、中核都市輪中堤の当面の復旧が挙げられ、80万米ドルが必要である。また無償資金協力により実施されたナラヤンガンジ・ナルシンジ灌漑施設の当面の復旧のため50-60万タカが必要である。更にダッカ東部バイパスは堤防としての機能も有している事から、その事業化は必要性・緊急性が高い。

(6)保健省

子供や女性(特に妊婦)が主に影響を受けており医薬品に15万米ドル、施設に25万米ドルが必要である、またこれら医薬品などのリストは既に作成済みである。緊急医療チームの派遣についても有効である。水の浄化については当省は浄水剤の配布を行っているのみである。

(7)災害対策救援省

1.5百万米ドルで通常的最貧困層や失業対策の為の食糧援助や復旧のためのフードフォアワークが必要である。またプラスチックシートはとりあえず必要だがCIシートも貧困層の家屋の屋根材料として必要である、債務救済無償の全額を災害対策のために使う事は額も大きい事や好調な輸出に影響を与える可能性もあり難しい。

別添3. バングラデシュ各関係省庁との個別協議概要

坂本団長他団員5名は(1)水資源省フダ次官、(2)地方自治農村開発共同組合省技術局シディク局長及び(3)運輸省道路局ワドゥドゥ局長と協議を行ったところ、概要は次の通り。(在バングラデシュ大使館石田、JICA事務所伊藤同席)

1. 水資源省

先方は次の通り説明した。UNDPが主導で仏、米、日本なども参加の上、それぞれに洪水対策を検討した。その後、世銀がドナー調整を行い総合的対策策定を目的に91年からFAP(洪水行動計画)を開始、26コンポーネントに分けて調査実施が行われた。FAPでは、経済性及び環境への影響に配慮し、主要な都市やEPZ(輸出加工区)等の経済中心地区のみを堤防により防御する必要最小限の対策が立てられ、これら堤防については全体で8700kmが必要とされている。今回の洪水はダッカ、チッタゴンハイウェイなども大きな影響を受けているが、何とか最悪の事態だけは避けられたと考えている。これまでも大洪水の次の年にも連続して大洪水が生じている例も多いことから、次の乾期が明けるまで当面の復旧のため170百万ドルが、内、堤防については75百万ドルが必要である。内訳としては浚渫、主要都市の輪中堤、住民参加型の堤防の嵩上げ、ハザードマップの作成(キャンペーンの実施を含めた)、96時間前予報に対応したシステム整備からなる。今回の洪水では死者数が少ないが、これは県レベルでの対策(堤防整備)がとられていたことによる、ダッカなど人口密度の高い地域は堤防で対応し、そうでない地域は洪水シェルターによる対策が必要である。浚渫船については、現在27隻所有しているが、浚渫は実施の費用が高い上、セディメンテーション、下流部への予測し得ない影響もあり洪水対策としての浚渫は大規模に実施していない。一方で、政治的に高いレベルから具体的洪水対策として河道浚渫の実施が求められており、特に外国人の見識を入れた科学的調査が必要であり、日本からの協力を求めたい。

2. 地方自治・農村開発・協同組合省技術局

(1)「シ」局長より別紙プロジェクトリストに基づき、日本側への要望案件について概要説明。地方住宅計画については貧困層への住宅の提供とともにNGOとの連携により所得向上プログラムも組み合わせた総合的な支援を行うプロジェクトであり、提供する住宅もC.I.シートの提供でなく、プレハブ住宅レベルを想定。小規模橋梁計画については洪水で流された橋の復旧プロジェクトであり、20ftで200橋分、年60橋の架設を想定している。洪水シェルターについては先のERDでの会議結果を受けて債務救済無償見返り資金を前提に新たに提案するものであり「バ」中央部で100ヶ所を想定している。

(2)これに対し当方より、要請案件については、実施後の維持管理費手当不足からメンテナンスの問題が生じる可能性が高く、「バ」政府として十分にプライオリティーをつけて提出されることが必要な旨、また、小規模橋梁計画(Large Bridge Project)についてはプロジェ

クト・コストが大きく債務救済無償でも対応は難しいと思われる旨、説明。(3)「シ」局長からは、小規模橋梁、簡易橋(フェーズII)は優先プロジェクトであり、簡易橋についてはそのコンポーネントの中でも道路建設機材及びスペアパーツ(1から2百万米ドル)部分がプライオリティが高い。また小規模橋梁については3年計画での実施を計画している。(当方より、検討にあたり詳細なプロジェクト内容が必要とのコメントに対し)プロジェクトの詳細な内容については後日、資料を提出する旨説明あった。

3. 運輸省

「ワ」局長より、被害状況についてはまだ水面下のところもあり、復旧に必要な額等は推測に過ぎないが、現在の見積もりでは14,900百万タカ(内訳:緊急分4,850百万タカ、短期復旧分3,550百万タカ、長期復旧分6,500百万タカ)。緊急分については政府予算により、短期・復旧分についてはドナーからの協力を期待している。10月初めから末にかけて全国的な被害状況調査を実施する予定。日本の無償プロジェクトではメグナ橋護岸、ダッカ・チッタゴン幹線道路中小橋梁を無償で実施中、メグナ、メグナ・ Gumティ橋については特に被害は無い。有償プロジェクト(ジャムナ橋アクセス道路)では被害が出ており、洪水被害のりハビリに加えて設計基準の見直しも行う必要あり。供与限度額ではカバーできない可能性があり、追加借款が必要となる可能性もある。コンサルタントは既に契約済みであり、すぐに必要な工事額は算定可能。(当方よりOECDへの報告の有無について質問したところ)要請については既にOECDにて提出済みである旨、説明あった。これに対し当方よりは、債務救済無償の見返り資金の利用も可能な旨説明しおいた。(なお、後日OECDに確認したところ16億円程度の未使用分があり、緊急的な道路補修についてはこれにより対応可能とのことであった。)

**List of the Projects Proposed to be
Included under Japanese Assistance as
Flood Rehabilitation Schemes**

JICA Grant

SL No.	Name of Project	Cost of the Project	Approved Status	Remarks
1.	Model Rural Development (Phase-II)	Tk. 1217.30 Million (US\$ 25.36 Million)	Approved by ECNEC on.09/12/97	Project Duration : 1997-98 to 1999-2000
2.	Cyclone Shelter Cum Primary School. (Phase-II)	Tk.1267.10Million (US\$ 26.40 Million)	Approved by ECNEC on.21/05/98	Project Duration : 1998-99 to 2002-2003
3.	Rural Housing	Tk.400.00 Million (US\$ 8.33Million)	PCP Approved on. 27/05/97	Rural Housing is one of Component of the Main Proj titled "Rural Infrastruct Development Project".
4.	Portable Steel Bridges & replacement of road construction equipment and supply of spare parts. (Phase-II).	Tk.1013.047Million (US\$ 21.11 Million)	PCP Submitted on - 10/11/97	Unapproved.

DRG/KR-2 AID

1.	Large Bridge Project	Tk.2016.00 Million (US\$ 42.00 Million)	Approved by ECNEC on.25/11/97	Project Duration : 1997-98 to 2001-2002
2.	Flood Shelter cum primary School & Villags Commu-nity Centre.	Tk.115.00 Million (US\$ 2.39 Million)	PCP is under preparation	Proposed for KR-2 AID DRG

OECE

1.	Northern Rural Infrastruc-ture Project	Tk.7736.30 Million (US\$ 181.00Million)	Approved by ECNEC on.19/11/97	Northern Rural Infrastruct Project is Part of the AI assisted 3rd Rural Infrastruct Project.
2.	Greater Faridpur Rural Infrastructure Development Project.	Tk.2000.00Million (US\$ 41.67Million)	Approved by ECNEC on.20/07/98	Project Duration : 1998-99 to 2000-2001

別添4. 主要ドナーとの協議概要

9月22日洪水対策支援合同調査団は(1)UNDP、(2)FAO、(3)WFP及びUNICEFを訪問し、緊急的な援助ニーズについて意見聴取を行った、(当方坂本団長他調査団員、在「バ」大使館石田書記官、JICA事務所伊藤所員同席)

1. UNDP

(1) UNDP

ロックウッドUNDP所長より、緊急的な援助ニーズ等についての説明があったところ概要以下の通り。

1)食糧についてはまだ不足分が確定しておらず大まかには100万tの不足が見込まれている。WFPが全体調整を行っているが、援助分を入れても需給ギャップは依然人きく、緊急援助の中で食糧問題は次の春までの間の最も大きな課題。

2)種子については協力するドナーがおらず、FAOが供給可能性を調査中。

3)復旧等長期的な対策については20数分野に分かれているLCG(Local Consultative Group)を中心として各分野毎に来週から検討が始まる予定であり、10月末には、実施中案件の内容変更・緊急事業への差し替え等も取り入れ、資金的なめどを伴った形で復旧対策の計画が策定される予定となっている。「バ」側は今次災害復旧に関し、ドナーに対して追加的な援助を期待しているが、ドナー側は援助額を倍増する余力は無く、既存案件の緊急案件への振り替えが主体の対応となるものと見越している。

4)政府を通さない協力としてマイクロファイナンス分野が今後の重要な協力分野となると考えている。預金額が8,000万\$もあるグラミン銀行やBRAC等大規模なNGOは別として、小規模なNGOでは今回の洪水被害により貧困層からの貸付額の回収が困難となることが予想される。一方で貧困層が新たな現金収入を得るためには種・肥料等についてのローンが必要とされ、これら小規模NGOの再建(Recapitalization)が大きな課題となっている。

5)今次洪水災害では、過去の経験に基づき進められてきたシェルターの整備や緊急時の食糧配給システム等のソフト面の改善により、過去の災害に比較して死亡者数は少ない、但し、被災者はこれら洪水等自然災害の度に家屋・財産等の生活基盤を失う構造は依然変化無い。現在、「バ」国の経済は農業を中心としているため、洪水等自然災害に対し脆弱な構造となっており、将来的には経済の多様化を図っていくことが必要。

6)現在の洪水予報システムは72時間予報となっているが、上流部での降雨、インド側での洪水の発生があれば当然「バ」国内での洪水規模は予測しうるものであり、インド、ネパールとの情報交換等コーディネーションが不足している。

2. FAO

コヌマFAO所長からの説明、概要は以下のとおり、(1)「バ」国内の穀物需要量は約2,200万t、内国内生産量は約2,000万tで約200万tが例年の不足量となっている。今次洪水による

アマン作の被害は例年の生産量約950万tの約3割程度、200から250万tといわれており、例年の不足量と合わせると約400-500万tが不足する見込み。これら不足分の調達については政府の輸入が100万t、民間ベースの輸入が100万t、現時点までのドナーによる食糧援助コミット分が130万tとなっており、90tから最悪の場合で170万tの不足が見込まれており、量的に莫大な援助が必要とされている。(坂本団長から今年度食糧援助については至急に実施したとしても実際に食糧が届くまでには約半年後となるが、食糧不足に対して有効かどの質問に対し)毎年10、11月がアウス米収穫の直前の時期で最も米が不足する時期であり、タイミングは重要な要素であり、食糧援助に緊急性が求められているのは事実であるが、当面、次期のボロ作の収穫までは食糧不足は継続していると見られ、半年後であっても非常に有用な援助と考える。(2)FAOは当面の食糧不足に対する協力として、9月末から作付けが始まるメイズ、10月半ばからの小麦、野菜の増産に照準を当てて支援する予定。被災により当面の農業収入とともに自家消費用の米を失った貧困農民に対する援助が課題であり、12月以前に農業インプット(肥料・種子)への援助を開始する必要がある。FAOは具体的には野菜を対象に25万\$の供与開始を予定している、(坂本団長から、債務救済無償の対象に「バ」政府の要望として種子、肥料、LLPが入っており、その有効な用途について質問したのに対し)ボロ米種子については95%は農民貯蔵分であり政府保存分は5%程度、現地適合種子を他から購入できる可能性は無く、どの程度農民が種子を保存しているかが今後の食糧供給量を左右する。9月末から10月にかけてFAO、WFP合同で種子の保存状況等について調査を行う予定。小麦、とうもろこし、野菜については生産量増大のため改良品種・ハイブリッド種子の購入は非常に有効。また、今次被害分を乾期ボロ米の単位収量増(通常2.5t/haから4.5t/ha)で取り戻すためにはリン・窒素肥料(尿素肥料は国内調達可能)の安定供給は非常に重要。LLP、フローティングポンプについては日本製のものはメンテナンスを考えた場合問題あり、「バ」国内で普及している中国製のポンプが購入できれば有効と考えられる。「バ」政府によるポンプの配分に問題ある場合はFAOでモニタリングに協力することは可能。(引き続き家畜飼料の必要性についての質問に対し)洪水も収束し、今後は動物用医薬品、口てい疫を中心とするワクチンの方が重要、FAOの財政的制約もあり本分野での協力は難しいが、他ドナーからの援助あれば有り難い。(3)当面の貧困者対策としてはFoodforWorkは有効な手段であり、食糧援助の活用は急務、クレジット・プログラムについては返済期限の無利子延長、利率緩和等により債務キャンセルを行わない方針をドナー間では共有。

3. WFP

キエネ所長からの説明、概要以下のとおり。

1)今年度洪水被害についてはアウス米30万t、アマン米210万t、計240万tの減収が見込まれており、食糧不足分は現時点で153万tとなっている。(最悪のケースで207万t)

2)食糧の配給については人口の約1/4にあたる最貧困層(一日カロリー摂取量1,800kcal以下で定義)を対象にPFDS(Public Food Distribution System)により、247万tの配給を今年度予定。(昨年度は172万t)

3)坂本団長から今年度食糧援助については至急に実施したとしても実際に食糧が届くのは来年2、3月頃となるが、食糧不足に対して有効かどの質問に対し)12月、1月頃に食糧不足が深刻化すると見込まれ、時期的には早ければ早いほど有用。

4)PFDSを通じた食糧援助は15の流通チャンネルから成り立つが、大きくは以下の3つに分けられる。

イ)Emergency(即時救援)ーVGF(Vulnerable Group Feeding)最貧困層への食糧配給(16kg/月/家族)

ロ)Rehabilitation & DevelopmentーFood for Work、開発プロジェクト(道路、堤防建設等)実施による就業機会の提供

ハ)OMS(Open Market Sale)市場安定のための政府保有米の放出(現在の市場か価格小麦130\$/t、米260\$/t)

5)罹災民への即時援助分は現在のところ6万tを予定。残りの分については情勢を見ながら「バ」政府が随時決定し配分を行う。

6)上記の数字については現時点の見込みであり、10日後ぐらいにFAOと共同して被害状況調査を実施予定であり、これにより追加支援量等を決定する予定。

7)具体的な食糧配給については、まずチッタゴン、モングラ両港から全国で16ヶ所の食糧貯蔵庫(Local Site Deposit)に分配され、そこから被災民への配給等は政府役人、NGO及びユニオンレベルの議員で構成される組織がコーディネート・実施する形となっている。WFPとしても配給の透明性確保に努めている他、配給にNGOが参加していることから全体としては十分に公平性が確保されていると評価している。

(坂本団長より援助国のコミット一覧表の日本協力分の数字の誤りを指摘)

8)公表用の資料については随時更新しており、変更の申し入れあれば次回の資料から改訂を行う。



FOOD SITUATION UPDATE : 20 September 1998

(All figures in metric tons)

1. Foodgrain Production						
Major Foodgrain Crops	Sowing Period	Harvesting Period	Actual Production 1997/98	Production Target 1998/99	Expected Shortfall in Production	Current Production Forecast
Rice						
1.1 <i>Aus</i>	March-May	July-Aug.	1,874,730	1,900,000	300,000	1,600,000
1.2a) <i>Aman</i> Broadcast	March-April	Nov.-Dec.	8,849,900	9,500,000	2,100,000	7,400,000
1.2b) <i>Aman</i> Transplant HYV	July-Sep.	Nov.-Jan.				
1.3a) IRR/I/Boro Transplant Local	Nov.-Dec.	April-May	8,137,330	7,800,000		7,800,000
1.3b) IRR/I/Boro Transplant HYV	Jan.-Feb.	May-June				
1.4 Rice (Total)			18,861,960	19,200,000	2,400,000	16,800,000
1.5 Wheat	Nov.-Dec.	March-April	1,802,815	1,800,000		1,800,000
1.6 Foodgrain (Total)			20,664,775	21,000,000	2,400,000	18,600,000
1.7 Foodgrain (Total - Worst Case Scenario)					3,000,000	18,000,000

2. Foodgrain Requirement and Availability				
	1996/97 (BBS)	1997/98 (BBS)	1998/99 Target	1998/99 Forecast
2.1 Foodgrain Production	20,338,550	20,507,000	21,000,000	18,600,000
2.2 Seed, Feed & Wastes (10% of Production)	2,033,655	2,050,700	2,100,000	1,860,000
2.3 Net Foodgrain Production	18,302,895	18,456,300	18,900,000	16,740,000
2.4 Foodgrain Intake Requirement (@ 455 g/capita/day)	20,427,225	20,759,400	21,091,500	21,091,525
2.5 Food Gap Not Met by Domestic Production	2,124,330	2,303,100	2,191,500	4,351,525
2.6 Government Commercial Imports	177,000	248,000	350,000	1,000,000
2.7 Private Imports	237,000	1,135,000	800,000	1,000,000
2.8 Food Aid	618,000	549,000	600,000	1,223,060
2.9 Change in In-Country Total Foodgrain Stocks *	236,000	-259,000	-140,000	400,000
2.10 Residual Food Gap	1,328,330	112,100	301,500	1,528,465
2.11 Residual Food Gap (Worst Case Scenario)				2,068,465

* Current assumption reflects Government policy to increase public foodgrain stocks, which have been reduced significantly in the past 3 years.

3. Public Food Distribution				
	1996/97 (MoF)	1997/98 (MoF)	1998/99 Budget	Current Forecast **
3.1 Public Food Distribution (PFDS Total Offtake)	1,391,676	1,620,800	1,718,000	2,467,000
3.2 Change in PFDS Foodgrain Stock *	-52,620	-206,121	-18,000	400,000
3.3 Local Procurement	614,835	616,828	750,000	360,000
3.4 Public Import Requirement	724,221	797,851	950,000	2,507,000
3.5 Government of Bangladesh Commercial Imports	106,109	248,535	350,000	1,000,000
3.6 Food Aid Committed	618,112	549,316	600,000	1,223,060
3.7 Public Import Gap	-	-	-	283,940

* Current assumption reflects Government policy to increase public foodgrain stocks, which have been reduced significantly in the past 3 years.

** Offtake target is expected to increase, following the finalization of a distribution plan to secure coverage for all vulnerable people.

4. Overview of Donor Assistance to Bangladesh - 1998/99				
Donor	Committed (Regular Programme)	Committed (Flood Relief)	Additional Potential (Flood)	Total Potential Food Aid
4.1 WFP	116,500			116,500
WFP EMOP (355,000 MT)				-
UK		100,000		100,000
Germany			8,000	8,000
EC			175,000	175,000
USA (416-B)				-
Still to be resourced by WFP			72,000	72,000
4.2 Canada	87,660	12,500		100,160
4.3 Australia	50,000	4,000		54,000
4.4 Japan	54,000			54,000
4.5 Italy	1,700	1,700		3,400
4.6 France	22,000			22,000
4.7 EC *	150,000			150,000
4.8 USA (PL-480 Title 1)	70,000			70,000
4.9 USA (PL-480 Title 2)	133,000			133,000
4.12 India		20,000		20,000
4.13 USA (416-B) **	50,000	350,000		400,000
4.14 TOTAL	734,860	488,200	255,000	1,478,060

* Obtained in the meeting of 17/9 at ERD, subject to clarification.

** Some of the 350,000 tons for flood relief could be channeled through WFP's EMOP. This would involve a double counting with the amount in the Potential column under line "Still to be resourced by WFP".

4. UNICEF

アズファUNICEF所長からの説明、概要以下の通り。

- 1)現在の関心事項として食糧不足(女性、子供)、公衆衛生施設などへの追加支援、水の汚染の3つが上げられる。教育インフラもあるがこれは後回しだろう。
- 2)疾病対策：ポリオ、麻疹、コレラ、下痢症、マラリアが増加しており、政府やNGOレベルで取り組んでいる、ポリオについては日本からワクチンの援助を受けている。
- 3)栄養状況：NGOとUKの調査の結果、栄養不良が72%増加して右り、特に女性で顕著である。また穀物などの種子不足が深刻でFAO・WFPと配布について配慮する。また、ハイプロテインビスケットやブレンドフード(コーンミクスチャー)の配布に重点を置く。
- 4)患者の状況：CDDプログラムやコミュニケーションキャンペーンがそれなりに功を奏しているためか大流行までには至っていない。下痢症やコレラに対する医薬品の輸送についてはドナーが県単位で割り振っているほか、NGOの参加も得ている。
- 5)浄水：浄化については取りあえず第1段階は了した。しかし、都市部に高汚染地域があり、地方部でも砒素汚染があり、井戸には注意が必要である、また水没地域の消毒や井戸、ポンプの復旧が必要である。国連がドナー調整をしているが復旧については世銀がリードしている。
- 6)予防接種プログラム：都市部ではうまくいっている。ハイプロテインビスケットやミックスフードが必要である。またカバー率を上げるためマスクャンペーンも必要である。当面は3つのセクター(食糧供給、公衆衛生、水浄化)を平行して行かざるを得ない。
- 7)種子：特に当面120,000トンの種子が必要であるが、9,000トンのみしか対応できない。(これに対し団長より、債務救済無償を活用したいと発言。)
- 8)食糧危機 特に12月が厳しい状況となる、当面はWFPやUNICEFがカバーし次のボロ米収穫までの調整とリプログラムが必要である。

別添5. 大蔵次官表敬概要

23日、坂本団長他は大蔵省ERDラーマン次官を表敬したところ、右概要以下の通り。

1. 団長より今後の日本の支援について以下の通り発言。(1)緊急に実施すべき援助として、医療分野では公衆衛生に関する専門家チームの派遣及び浄水剤、消毒薬等の医薬品の供与を検討したい、また食糧援助の手続きをできるだけ短縮するよう努力したい。(2)緊急に必要な物資の調達には債務救済無償および見返り資金を利用することが最も有効であると認識しており、CIシート、肥料、種子、ポンプ、リハビリ材料等災害対策に必要な物資を計画的に購入していただきたい、(3)インフラ復旧関連のプロジェクトについては、既に我方へ要請越している案件もあわせ再度優先順位を付けた上で要請いただき、それをふまえた上で今年度の年次協議を行いたい。
2. これに対しラーマン次官より、今般のミッション派遣に感謝すると共に、食糧・物資援助等は非常に有り難い、また債務救済無償は洪水対策に活用していきたい旨発言。
3. これに対し団長より、(1)今般の洪水は相当長期にわたっていることから経済的なダメージの大きさを憂慮しており、復興にあたっては「バ」政府とドナー間で協議しながら進めるべきと考えている、(2)日本の援助による実施中案件の被害状況を把握する事が必要である旨発言。

別添6. ラップ・アップ会合概要

23日、大蔵省ERDにてラップアップ会合が開催されたところ、右概要以下のとおり。(出席/「バ」側:アームドERD次官補、関係省庁担当者、日本側:調査団、大使館(神宮、富田、石田)、JICA「バ」事務所)。

(1) 冒頭アームド次官補よりミッション派遣に感謝する旨発言。

(2) 団長より今後の日本の支援について以下の通り発言。

1)緊急に実施すべき援助として、医療分野では公衆衛生に関する専門家チームの派遣及び浄水剤、消毒薬等の医薬品の供与を検討したい。また食糧援助の手続きをできるだけ短縮するよう努力したい。

2)緊急に必要な物資の調達には債務救済無償および見返り資金を利用することが最も有効であると認識しており、CIシート、肥料、種子、ポンプ、リハビリ材料等災害対策に必要な物資を計画的に購入していただきたい。

3)インフラ復旧関連のプロジェクトについては、既に我方へ要請越している案件もあわせ、ERDのコーディネーションにより再度優先順位を付けた上で要請いただき、右をふまえた上で今年度の年次協議を行いたい。

4)草の根無償についても支援強化を図りたい。

(3) これに対しア次官補より以下の通り発言。

1)アモン米は深刻な打撃を受けており、KRが早期に実施される事は非常に有り難い。また、多くのドナーから小麦の食糧援助を受けているが、「バ」としては主食である米の援助が有り難く、追加援助を期待している。

2)見返り資金を利用する16プロジェクトに関しては、災害対策に活用すべく計画委員会で見直し作業に入っており、今月末には結論が出る予定である。

3)災害対策においてNGOの果たす役割は大きく、特にマイクロクレジットへの支援が重要である。農村部の衛生、保健医療等への援助が有効であると考えている。

4)インフラに関しては、各種インフラの復旧支援の他、洪水シェルターの建設をお願いしたい。

(4) 引き続き各省より以下のコメントがなされ、議論が行われた。

(LGED)リハビリ案件として洪水シェルター、簡易橋、小規模橋梁(ラージブリッジ)を要請したい。

(ダッカ上下水道公社)緊急的な給水分野では独、スイス、世銀からのコミットを得ているが、下水分野での援助が得られておらず、既に要請済みの下水道網のリハビリ案件を実施して欲しい。

(団長)個別案件についてはERDが調整役となり内容及び優先順位を検討した上で要請するようお願いする。

(水資源省)堤防をかねたダッカ東部バイパスの建設は最も緊急性が高い。河川のドレッシングについて経済・技術的な可能性を検討しうるテクニカルチームの派遣、実施中のナランガンジーナルシンジ灌漑プロジェクトの復旧を検討して欲しい。

(団長)ダッカバイパスについては必要性及びプロジェクトとしてのコンセプトは認めるが、プロジェクトの規模の巨大さから考えて実現には協調融資を検討して欲しい、ドレッシングについては従来の専門家派遣と言うよりは研究協力的なものが適切と考える。灌漑プロジェクトはまず被害の調査が必要。

(ア次官補)ダッカ東堤防・バイパスプロジェクトに関しては、29日にも大使館、OECD、JICAと会合を持ち協議したい。

(5)最後にア次官補より、今般の調査団は洪水後最初の大規模な調査団であり、あらためて感謝する旨コメントがあり閉会した。

REQUIREMENT OF IMMEDIATE FLOOD RELIEF
(As of 26 August 1998)

Sl. No.	Name of the Ministry/Division	Requirement		Purpose	Remarks
		Kind	Cash in Million US\$		
1.	M/O. Disaster Management & Relief	75,000 MT** of rice	1.20	Gratuitous Relief	Requirement may increase depending on the duration of flood.
2.	M/O. Agriculture	-	13.19	Supply of inputs like seeds, fertilizers etc. to 50% of the affected farmers.	
3.	M/O. Food	1.35 Million MT of Foodgrains	-	Procurement of this additional foodgrain will require about US\$ 242.50 Million.	It has been estimated that the total shortfall of production due to flood will be about 2.30,000 MT.
4.	Local Govt. Division	27,800 MT of Wheat	-	Immediate rehabilitation of hatched roads.	
			21.28	Repair of Dhaka City Roads.	
			9.38	Repair of RTW and DTWs and Sanitation	
			4.60	Road rehabilitation/ improvement including advance package.	
			0.50	For Dhaka WASA	
			1.75	Procurement of medicine and equipments.	preliminary estimate likely to go up.
5.	M/O. Health & Family Welfare	-	5.03	Cash grant and procurement of Vaccines and Veterinary medicine and supply of inputs.	
6.	M/O. Fisheries & Livestock	-			

Sl. No.	Name of the Ministry/Division	Requirement		Purpose	Remarks
		Kind	Cash in Million US\$		
7.	Primary & Mass Education Division	-	10.6	Repair of Primary Schools used as flood shelter.	-
8.	M/O. Education	-	23.40	Repair and rehabilitation of physical facilities of educational institute damaged due to flood.	-
9.	M/O. Communications	-	16.48	Rehabilitation of Roads including Highways.	
	Total =	13,77,000	2.85	Repair of Railway tracks	

** This is included in the estimate of Ministry of Food.

POST FLOOD REQUIREMENT OF FLOOD REHABILITATION
(As on 26 August 1998).

Sl. No.	Name of the Ministry/Division	Requirement		Purpose	Remarks
		Kind	Cash in Million US\$		
1.	M/O. Disaster Management & Relief	a) 1,50,000 MT ⁰⁰⁰ Rice	-	VGF Programme	
		b) 57,000 MT of C.I. Sheet (Equivalent to US\$ 64 million).	7.23	House Building Grant	
		c) 3,75,000 MT ⁰⁰⁰ Wheat	-	Rebuilding rural infrastructure.	
2.	M/O. Agriculture	-	4.70	a) Agriculture mechanization programme.	
		-	25.30	b) Phosphatic fertilizer (DAP)	
		-	6.25	c) Mixture of Pesticide (MPE)	
		-	3.00	d) Deep Tub-well rehabilitation.	
		-	0.15	e) Vegetable seeds (to be procured locally)	
3.	M/O. Water Resources	-	150	Repair of Embankments, Stences, Culverts & other structures.	

Sl. No.	Name of the Ministry/Division	Requirement		Purpose	Remarks
		Kind	Cash in Million US\$		
4.	Local Govt. Division M/O. LGWD&C IGED	-	34.17	Repair of the metal roads, bridges, culverts and growth centres.	
	Dhaka WASA	-	25.80	Rehabilitation works.	
		-	2.80	Repair of the pipes and sewerage line.	
5.	M/O. Health & Family Welfare	-	4.50	Repair and rehabilitation of Union Sub Centres and Family Welfare Centres.	
6.	M/O. Education	-	48.90	Repair and rehabilitation of Educational Institutions.	
7.	Primary & Mean Education Division	-	95.70	Repair and Reconstruction of Primary Schools	
8.	M/O. Communication	-	53.84	Repair and Reconstruction of Rural Roads	
	Total =	57,000 MT of C.I. Sheet	460.74		

** This is included in the estimate of the Ministry of Food.

Source: UN Office for the Coordination of Humanitarian Affairs (OCHA)
Date: 04 Sep 1998

United Nations Flash Appeal in support of the Government of Bangladesh for Relief to the Victims of the Floods in Bangladesh

OCHA/GVA - 98/0281

A Proposal for Emergency Relief prepared by the United Nations Disaster Management Team in Bangladesh

I. OBJECTIVE

The objective of the International Appeal by the United Nations is to solicit contributions for emergency relief and initial rehabilitation to the people affected by the flood disaster of July September 1998. The appeal concentrates on providing emergency relief to the most vulnerable children and women particularly the homeless and landless, over the next three to four months. The appeal covers the needs for emergency relief (food, medicine, shelter) and initial rehabilitation (agriculture, shelter materials, water supply repairs and learning/teaching materials). Also included is the need to conduct a thorough assessment of the longer term rehabilitation requirements. Such an assessment, however, can only be completed after the floods have receded. At that point, it is intended to issue a second Joint Appeal for to cover the rehabilitation requirements.

1. Background

1.1 Bangladesh: Disaster Proneness

Bangladesh with a population of over 120 million cramped into a land area of only 55,000 square miles, is the delta formed by the three great river basins of South Asia. Waters flowing from the three basins of Brahmaputra, Meghna and Ganges rivers are discharged into the Bay of Bengal through Bangladesh.

Population density and the number of people 'at risk' is increasing in all parts of the country. The pressure on land is such that newly accreted char (recovered) land is immediately occupied for agriculture. The coastal area also attracts a large number of seasonal workers.

The major natural disasters to which Bangladesh is subjected are cyclones, floods, river bank erosion, tornadoes, droughts and earthquakes. Experience has demonstrated the effectiveness of coastal embankments and associated afforestation in reducing losses and damage, and the life-saving potential of shelters and any form of brick building. Studies have shown that people evacuate to safer sites if they are convinced that their lives are in immediate danger, if they assess the risk of death to be greater than the risk of their land and property being stolen in their absence, and if there is time to reach known safe sites.

Extensive river floods cause great disruption and damage to infrastructure and loss of crops. Floods indirectly contribute to the concentration of land ownership and wealth as small landowners are forced into 'distress selling'. Flash floods cause considerable damage. River bank erosion carries away land and destroys houses and other structures and approximately one million people are affected every year. Drought-induced famines were a major killer, but their effects have been reduced by increased access to irrigation and by the provision of food aid. Tornadoes cause localized devastation and demand an immediate response. Landslides occur in hilly areas. The country is situated in a seismic zone with the consequent risk of an earthquake causing serious damage.

Increases in population, and population density, and industrialization in urban areas have considerably increased the risks associated with major fires, and industrial and other accidents. Human activities have also increased the vulnerability of many people to natural phenomena, examples include the closure of natural drainage channels and the diversion of the dry season flow of the Ganges.

The history of disasters in Bangladesh is long and the impact of many have been particularly severe. Just before independence in 1970, a devastating cyclone in the coastal belt caused the death of 300,000 people and significant damage to the national economy. The 1974 floods were followed by famine that took the life of nearly 30,000 people. More than 11,000 deaths were caused by the cyclone of 1985. The severest floods on record before this year, in 1988 caused the death of nearly 6,000 people. This year the floods, worse than 1988 and still with little signs of imminent reprieve, have caused the loss of 'only' 470 lives to date due to more warning time and better preparedness.

1.2 General Situation

During the last seven weeks, continuous heavy monsoon rain in Bangladesh and in the river catchment areas outside Bangladesh had led to the increase in water levels in the three major river basins of the Brahmaputra, Meghna and Ganges. The rise of tide in the Bay of Bengal is obstructing recession of flood water from Chandpur, Brahmanbaria and Dhaka.

The flooding has killed 470 people so far and left 21 million people homeless or marooned, with two-thirds of the country submerged by floodwater.

The floods have caused substantial damage to crops and infrastructure: \$ 300 million worth of rice crops destroyed, 9,160 km of roads damaged, over 6,500 bridges and culverts washed away and 1,800 schools being affected, according to the Central Control Room of the Ministry of Disaster Management and Relief.

In the capital Dhaka, half of which has been under floodwater for weeks, food and drinking water is in short supply. Diarrhoea caused by polluted water and rotten food has affected the population.

The water level is expected to completely recede only by the end of September, rather than by the end of August as previously anticipated. This will also depend upon the possibility of more monsoon rains in Bangladesh and in upstream areas in India as well as upon the tidal situation in the Bay of Bengal. As the flood-waters begin to recede, the risks of major disease outbreaks will increase even further. On top of this, the already poor nutritional status of children and women will deteriorate even further.

2. Response to the Disaster

2.1 Government of Bangladesh, Institutional Arrangements for Disaster Management

National Disaster Management Council (NDMC)

- Establishing policies and providing overall direction for all aspects of disaster management. Defining priorities and criteria for the allocation of resources.

National Disaster Management Advisory Committee (NDMAC)

- Providing advice to the NDMC, and directly to MDMR and DMB, on specific technical, management and socio-economic aspects of disaster management, including vulnerability analysis and disaster-development links.

Inter-Ministerial Disaster Management Co-ordination Committee (IMDMCC)

- Implementation of NDMC policies and decisions on an inter-ministerial basis.
- Co-ordination of action by all government agencies and overall direction of the activities of the DMB.
- Responsibility for major operational decisions during an emergency.

- Decisions on allocations of relief resources through its sub-committee, the Executive Emergency Relief Committee.

Ministry of Disaster Management and Relief (MDMR)

- Ministerial responsibility for disaster management, including the convening of the IMDMCC.
- Assuring the establishment, resourcing (budget), and satisfactory functioning of the DMB.
- Supervision of the DRR.

Disaster Management Bureau (DMB) - a part of MDMR

- Provision of expert staff services to the NDMR and IMDMCC.
- Promotion of disaster prevention/mitigation and preparedness within all agencies and level of government.
- Providing guidelines, organize training, and promoting the preparation of disaster plans.
- Operation of the national Emergency Operations Centres (control room) at time of disaster.

Directorate-General of Relief and Rehabilitation (DRR)

- As at present with respect to: VGD; FFW; GR and TR; the management and delivery of relief supplies, and the provision of related services.

DRROs and PIOs

- As at present under the general direction of DRR and the operational supervision of DC and TNO. Increased attention by DRROs in particular to disaster preparedness under the guidance of the DMB (this compensating for some reduction in FFW workload)

In addition, other institutions such as IFRC/Red Crescent Society of Bangladesh, and large numbers of local and international NGOs are engaged in flood relief.

2.2 Government Initiatives

In response to the disaster, the Government of Bangladesh has mobilized all resources and personnel to mitigate the suffering of the victims. As of now, the Government has distributed cash totaling 44.65 million Taka (US\$ 950,000) plus 5.7 million Taka (US\$ 12,400) from the Prime Minister's relief fund. Furthermore, the Government has distributed 67,218 MT rice, 8,840 biscuit tins of 10 lbs each, 155,944 saris, 46,000 lunghis, 34,500 pieces of old clothing and 21,600 meters dress material. 4,008 medical teams are operating in the affected areas, and the army is engaged in emergency maintenance of highways and protection of the embankments as well as water purification and distribution.

On 26 August 1998, the Government of Bangladesh issued an international appeal covering the requirement of emergency flood relief and rehabilitation. The appeal listed a requirement for US\$ 112.26 million for immediate relief, and a requirement for US\$ 460.74 million for rehabilitation including approximately US\$ 250 million in additional food aid.

The Government asked for assistance in the following form:

- Food aid (Rice and Wheat)
- Supplementary food for the most vulnerable - Baby food e.g., milk powder, high protein biscuits etc.
- Medicine supplies including water purification tablets, ORS & IF Fluids.

- Shelter materials including C.I. Sheets, plastic sheeting and cash to be disbursed in TK 1000 (US\$ 21) grants to assist families in purchasing local building supplies.
- Supply of inputs such as seeds and phosphate and potash fertilizers (DAP and MP).
- Support (cash/materials) for the rehabilitation of infrastructure including tube wells, water supply facilities, schools and health centres, embankments, sluices and culverts, roads, railways, and bridges.

2.3 The United Nations' Response

The United Nations Resident Coordinator remains in close contact with the Government authorities to help coordinate assistance from the wider donor community in Dhaka. The UN Resident Coordinator is also coordinating the UN system response to this emergency through the United Nations Disaster Management Team (UN-DMT) with whom regular meetings are held. Meetings including representatives of major donor countries, the UN agencies, the United Nations Disaster Assessment and Coordination (UNDAC) Team, the Red Crescent and several NGOs were held on 30 August and 02 September 1998 to review overall assistance requirements and commitments made by donors to date. A technical working group on food requirements has been established by WFP to arrive at a consolidated picture of food needs. In addition, two technical working groups have been established dealing respectively with health (with the participation of WHO, UNICEF and UNFPA) and other relief items (with the participation of IFRC, Red Crescent Society of Bangladesh, ADAB, OXFAM, CARE, UNHCR and OCHA/UNDP).

The UN family in Bangladesh is providing initial assistance of US\$ 1.16 million for the flood victims in Bangladesh. Even before the official appeal was launched UNICEF reprogrammed US\$ 50,000 from other programmes for emergency relief supplies including ORS and IV Fluid and OCHA released US\$ 50,000 from its emergency cash grant reserves for the purchase of shelter material. As an immediate response to the Government's request of 26 August UNICEF reprogrammed a further US\$ 450,000 and secured a further US\$ 300,000 from its Emergency Programme Fund at New York Headquarters. Further commitments include US\$ 210,000 through OCHA/UNDP (including funds provided by Norway and Luxembourg), US\$ 200,000 by WFP for supplementary food, and US\$ 240,000 by WHO, US\$ 40,000 by UNESCO and US\$ 25,000 by UNHCR. These funds are being used for the purchase of plastic sheeting and corrugated iron sheets for emergency shelter, water purification tablets, ORS IV fluids, high protein biscuits, tubewell material and sanitation material. In addition, the Government of Norway has announced a further contribution of US\$ 153,000 through OCHA for immediate emergency response.

IFRC informed in its situation report no. 2 issued on 31 August that, in response to the appeal for US\$ 1.8 million to assist 100,000 families, US\$ 710,000 had been received in cash and in-kind contributions. In view of the fast deteriorating situation and increasing needs, the Bangladesh Red Crescent Society (BDRCS) intends to increase the scope of its relief activities and plans to target up to 500,000 families (2.5 million beneficiaries). This will call for a revised needs assessment and Plan of Action.

2.4 United Nations Assessment Mission

The UN Disaster Assessment and Coordination (UNDAC) Team, together with representatives of UNDP, UNICEF and the IFRC/Red Crescent Society of Bangladesh, visited a typical District regarded as having suffered moderate to serious damage. The purpose of the visit was to ascertain the degree of damage, the efficiency of ongoing relief efforts, and the general state of health and welfare of the affected population. For that purpose, the team met with officials at District, Thana, and Union level, visited flooded villages, and inspected communal shelters.

The Team members shared the impression that the governmental reporting system on damage caused by flooding was well functioning and probably the most reliable source of information under the prevailing circumstances. The Team equally felt that the governmental food distribution system was as accurate and efficient as possible, given the general resource constraints.

The Team did not observe, but received reports from medical teams at Union level on incidents of diseases related to the floods. The Team did observe, however, the distressingly cramped and unhygienic conditions under which flood victims live (and have lived now for over 50 days) in the communal shelters in public buildings (mostly schools). The Team's findings were corroborated by findings of the 5 teams dispatched by WFP to assess food needs and coping strategies.

The findings of the UNDAC Team should be seen as neither scientifically based nor exhaustive, but still of indicative value, given the homogenous character of the country.

2.5 Response by the International Community

To date, cash and in-kind contributions valued at over **USD 64 million** have been reported to OCHA by the international community in response to the flood situation and the Government's appeal (see annex).

The Asian Development Bank and the World Bank have indicated their preparedness to assist the country in Post Flood Rehabilitation by utilizing savings from approved projects. The Asian Development Bank has already indicated an amount of US\$ 12 million for that purpose.

II. THE UNITED NATIONS APPEAL

1. HEALTH

1.1 Background

In the face of disaster and suffering there is a natural human impulse to reach out and help those in need. Medicines are an essential element in alleviating suffering and international humanitarian relief efforts can greatly benefit from donations of appropriate drugs.

Unfortunately, there are also many examples of drug donations, which cause problems instead of being helpful. A sizeable disaster does not always lead to an objective assessment of emergency medical needs based on epidemiological data and past experience. Any appeal for medical assistance must be issued with guidance on what are the priority needs.

1.2 Secondary Threats due to the current flood

Bangladesh, being affected by a devastating flood since the beginning of July this year, is also facing a health emergency since most of the districts affected by the current flood are also known as endemic for diarrhoea. However, the onset of current flood has not coincided with the usual seasonal onset of diarrhoeal diseases in Bangladesh. However, with water starting to recede in some parts of the country, the possibility of outbreaks of diarrhoeal and other water borne diseases in some of the affected areas cannot be overlooked. So far, there is no report of any epidemic outbreak of diarrhoeal diseases from the flood-hit areas, although diarrhoea cases are being reported across the country from the inundated areas.

Since the beginning of flood (July 15, 1998), 134,866 people have been affected by diarrhoeal diseases. Of them 101 have died (death rate is 7 per 10,000 persons).

On an average 2,300 new cases of diarrhoea are being reported from the flood hit districts and of them 1 is being reported to have died (Case Fatality Ratio is approximately 0.07%).

Other health problems expected during the post-flood period are dysentery, watery diarrhoea, pneumonia, intestinal worms, skin infection, eye and ear infection, malaria, enteric fever and common fever, etc.

More than 21 million people are severely affected having been displaced or having lost their homes completely. Some emergency shelters have been set up (mainly in schools) but these are severely overcrowded. This overcrowding combined with shortages of food, safe drinking water, and adequate safe sanitation facilities are the almost perfect breeding ground for major disease outbreak and public health crisis. As the flood-waters begin to recede, the chances of major disease outbreaks will increase even further. On top of this the already poor nutritional status of children and women will deteriorate even further.

The initial estimate of the Government led to an appeal for US\$ 1.75 million for the procurement of medicine and equipment. In the context of the revised estimate described above and in consultation with the emergency response officials of the Ministry of Health and Family Welfare, the health sub-group of the UNDMT comprising WHO and UNICEF-Bangladesh has prepared a list of drugs and other emergency medical supplies for the Ministry of Health and Family Welfare for the next 3-4 months as part of the Ministry's immediate post-flood health assistance programme as well as for the long-term post-flood health rehabilitation programme.

1.3 Objective

To minimize adverse health effects of the Bangladesh flood with priority given to major causes of mortality, morbidity and substantial disability. This will require health care service to the needy in a population of about 20 million people for approximately 4 months.

1.4 Strategy

Overall responsibility for providing health-care services to the affected population will belong to the Government represented by the Ministry of Health and Family Welfare in close cooperation with the district and thana level health authority, and NGOs. The Government will also be responsible for planning, coordination, transport, manpower and infrastructure support for the planned health-care delivery to the affected people.

UN organizations like WHO and UNICEF will also work closely with national and local level health authorities in planning and co-ordination of health-care delivery and developing strategies to deal with the health consequences in the aftermath of the flood disaster. They may also assist in monitoring and evaluating the post-flood health care services and health rehabilitation programme.

UNICEF, WHO and UNFPA have structured their health interventions in order to support to the Government and NGO systems to deal with the increase in cases of diarrhoea, measles, ARI, malaria and skin diseases. Extra vaccines are also being procured in order to broaden immunization coverage of children under five years of age in order to help prevent epidemics.

1.5 Budget

The estimated budget for this emergency health-care assistance and rehabilitation proposal is US\$ 8,766,000. This covers the cost of emergency drugs, renewable medical supplies and equipment. A detailed breakdown is available from UNICEF and WHO. No data is available to estimate damage to infrastructure, and this should be assessed during the rehabilitation phase. The budget estimate is based on international purchase, however, for many of the items a local production capacity exists and should be utilized to the extent possible. For some items, this would lead to a substantial reduction in costs.

Budget	US\$
Treatment of water borne diseases	5,841,000
Acute Respiratory Infections	137,000
Malaria and other diseases	2,461,000
Water Disinfectant	81,000
Health Kits	123,000
Measles	123,000
TOTAL	8,766,000

2. FOOD

2.1 Objective

To secure a minimum provision of food to the most vulnerable and displaced households in severely flooded districts. The Government has requested an additional food assistance in the order of 1.38 million

MT of foodgrains for relief and rehabilitation. This includes 600,000 MT for immediate and protracted relief.

This Joint United-Nations appeal concentrates on the immediate relief; a separate appeal for a Protracted Relief Operation (PRO) to assist the Government in its efforts will be prepared later in the year, after conduct of an in depth assessment of food needs and damage caused by the flood.

2.2 Background

As of 1 September 1998, over 24 million Bangladeshis have been very seriously affected by a flood now coming into its 50th day. The most vulnerable - the displaced, the landless and the women-headed households - have reached the far end of their coping ability. Their main source of employment - day labour - has vanished, their savings are spent and their assets are lost. Food is running out quickly.

Part of the *Aus* rice crop, due in July/August, could not be harvested. The Government estimates that 300,000 tons of rice have been lost. If water levels remain high until mid-September, farmers in the affected areas will not have time to prepare their seedbeds and plant the *Aman* crop, which is the major rice harvest in Bangladesh. Current estimates predict a shortfall of 566,000 tons of rice from the *Aman* harvest (see also paragraph 6.2 below). A review of production shortfall is scheduled for September 15. The prospect of a low *Aman* harvest has caused prices to rise in the flooded areas. A high price for rice means that the poorest, who are chronically undernourished in a normal year, eat even less. The vulnerable population in affected areas is now homeless, facing acute unemployment, scarcity of basic food and diarrhoea induced by poor sanitary conditions. Without assistance, many are at risk of starvation.

2.3 Strategy

One of the channels for distribution of assistance following disasters is the Vulnerable Groups Feeding (VGF) programme. Under VGF, the Government provides 16 kg of foodgrains per month to destitute families, mostly female-headed. The VGF channel is expandable in times of need through the attribution of more VGF cards in affected areas.

WFP will provide a monthly ration of 16 kg of cereals to 14,250,000 persons (2,850,000 households). In addition, 570,000 extremely affected households (2,850,000 million people), representing 20% of the total population under this emergency operation, will receive additional food, consisting of 5 kg of either blended food or pulses, depending on the local and/or regional procurement and supply capacity. These households will mainly be selected with the help of NGOs.

Dry biscuits will be distributed to those most in need of nutritious food, in order to start the relief operation immediately. Both WFP and UNICEF will be responsible for procuring biscuits and distributing them through established channels supported by NGO networks. Monitoring will be secured by WFP and UNICEF field teams.

Foodgrains will have to be imported, in view of the precarious stock situation, the quantity required under this emergency operation, and the expected drop in foodgrain production. Current Public Food Distribution System (PFDS) reserves allow for the borrowing of foodgrains from Government stocks as soon as the operation is approved, but it is essential that aid shipments arrive soon in order not to deplete GOB stocks.

Pulses, blended food and biscuits will be purchased to the extent possible on the local market, but a substantial quantity will have to be purchased in the region, or imported.

The Ministry of Food will transport foodgrains to Local Supply Depots (LSD) in the affected areas, using its existing network. In accordance with the existing cooperation between the Government and NGOs, NGOs will be involved in the selection of beneficiaries for biscuits. The final distribution will be made by local government authorities (Union *Parishad*) or NGOs. The Ministry of Disaster Management and Relief will supervise the entire process and report to WFP.

2.4 Budget	US\$
Wheat (228,000 MT; WFP supported, including transport/monitoring)	51,375,000
Wheat (protracted relief PRO 200,000 MT)	50,000,000
Blended food (7,125 MT; WFP supported)	3,490,000
Pulses (7,125 MT; WFP supported)	2,957,000
Biscuits (WFP-supported)	238,000
Biscuits (UNICEF-supported)	290,000
TOTAL	58,350,000
PROTRACTED RELIEF	50,000,000

3. SHELTER

3.1 Objective

To provide shelter materials for the displaced for use immediately during the flooding and for use afterwards in the rebuilding of their homes.

3.2 Background

More than 21 million people have been displaced or have lost their homes completely. Some emergency shelters have been set up (mainly in schools) but these are severely overcrowded. This overcrowding combined with shortages of food, safe drinking water, and adequate safe sanitation facilities are the almost perfect breeding ground for major disease outbreak and public health crisis. There is an urgent need for more shelter materials for immediate use and for rebuilding homes once the flood waters recede. Plastic sheets have been provided by some donors already. These sheets are useful for immediate relief but cannot substitute the need for C.I. sheets. The Government has estimated a total requirement of 57,000 MT C.I. sheets of which roughly one third is required immediately in order to enable homeless people to return from the shelters as soon as the waters recede.

3.3 Strategy

Distribution of the C.I. Sheets will be through established Government channels supported by the NGO networks that support the ongoing Government of Bangladesh programme of cooperation.

UNDP (on behalf of OCHA in regard to emergency relief) can procure and import these C.I. sheets for distribution, monitoring, and accountability by the Ministry of Disaster Management and Relief.

3.4 Budget

The estimated cost for purchase and distribution of 20,000 MT C.I. sheets is: **US\$ 25 million**

4. WATER AND SANITATION

4.1 Objective

To enable urgent repair of Hand Tube Wells (HTWs) and Deep Tube Wells (DTWs) and to provide materials for the rehabilitation of community water supplies and safe sanitation facilities in order to prevent the outbreak of disease.

4.2 Background

Government and NGO assessments point to widespread damage to water pumps throughout the flood affected areas. As the flood waters recede, the repair of these facilities will be critical in preventing outbreaks of disease.

4.3 Strategy

The Government will undertake urgent repair of HTWs and DTWs and the Dhaka water supply.

UNICEF will distribute some spare parts, repair kits and pipes through the established Government channel (Department of Public Health and Engineering - DPHE). UNICEF will be responsible for procuring and importing (where necessary) these supplies. UNICEF will monitor the movement of supplies from Government warehouses at the district level. UNICEF's strong field team (30 district based Project Coordinators) will also monitor distribution of supplies to identified beneficiaries on a sample basis.

4.4 Budget

The estimated cost for this proposal for repair of water and sanitation installations is consisting of

	US \$
repair of HTWs and DTWs	7.4 million
Dhaka WASA	0.5 million
UNICEF activities:	2.1 million
TOTAL:	10.0 million

5. EDUCATION

5.1 Objective

The Government attaches the highest importance to the availability of education of children, particularly girls. It therefore aims to undertake an immediate repair of schools that are being used as shelters in order to minimize the disruption of educational activities. In addition, UNICEF activities aim to provide materials to schools to facilitate the rapid re-establishment of classroom learning for the same purpose.

5.2 Background

Schools in flood affected districts have been closed. 80 % have been damaged and the remaining 20% are now being used as shelters. In the schools that have been flooded it is likely that most text books and other classroom materials will have been destroyed. In the schools that are being used as shelters, the damage or loss of materials is substantial. There will need to be a massive re-equipping of the schools in affected districts in the wake of this disaster.

5.3 Strategy

The Government will undertake immediate repairs on the basis of existing preliminary estimates of damage. A full assessment of the damage to schools will be made when the flood waters recede. Distribution of the textbooks will be through established Government channels (Department of Primary Education - DPE).

UNICEF will be responsible for procuring these supplies and distributing them through DPE. UNICEF will monitor the movement of supplies from Government warehouses at the district level. UNICEF's strong field team (30 district based Project Coordinators) will also monitor distribution of supplies to identified beneficiaries on a sample basis.

The Government will undertake urgently needed repairs of primary and secondary schools.

5.4 Budget

The estimated cost is

	US\$
for the replacement of school textbooks (UNICEF)	0.3 million
for urgent repairs to primary schools (Government)	10.6 million
for urgent repairs of secondary schools (Government)	23.4 million
TOTAL	34.3 million

6. AGRICULTURE

6.1 Objective

To provide agricultural inputs to support flood affected farmers to meet their emergency requirement for the immediate agricultural production season starting October 1998.

To provide emergency supplies of veterinary medicines, vaccines and other associated supplies to minimize animal losses.

6.2 Background

The flood affected 45 districts (out of a total of 64) and is spread over an area of 800,000 hectares of crops causing a total production loss of 866,000 MT (as at 31/8/98). This consisted of 300,000 MT of *Aus* which was at a late harvesting stage, and 566,000 MT of *Aman* which was at an early planting stage. Due to the prolonged flood lasting over 50 days, a considerable number of farmers would not be able to plant *Aman* paddy before the planting season ends in late August/September 1998.

The total production losses of paddy might increase further to the level of 1.5 2.0 million MT or even higher as the present flood season may continue for at least the next 2 weeks or more. A review of the production shortfall is scheduled for September 15.

Thus, a large number of farmers would not receive income from the present production season, which might result in serious economic loss and poverty.

The Government has taken active steps to restore the agricultural production system for the post-flood period, which should start immediately after the water level recedes. In order to assist flood affected farmers to restore agricultural production and to ensure food security at household and national levels, it is essential that the farmers would be provided immediately with agricultural inputs such as seeds, fertilizer, farm machines, etc. It is particularly vital to obtain emergency supplies of wheat seeds, vegetable seeds, maize seeds together with associated fertilizer and agricultural machineries by mid-October 1998 to be in time for the production season.

The available official data as at 31/8/98 indicates that the flood affected approximately 2 million cattle/buffalo, over 700,000 sheep and goats and more than 10 million poultry birds/ducks. These numbers would be increased further upon the receipt of further details from different parts of the country.

So far, 1,700 cattle/buffalo, 1,800 sheep/goats and over 60,000 poultry birds/ducks died due to the flood. Number of animal losses due to disease might be increased substantially and would cause serious economic losses to farmers as the flood situation may continue for more than two months. Thus the emergency provision of veterinary drugs to treat sick animals and veterinary vaccines for preventive measures, etc. would be essential to minimize animal losses and protect farmers from serious economic losses.

The Government has estimated a need for the supply, as soon as waters recede, of inputs like seeds and fertilizers to a value of US\$ 13.19 million and a rehabilitation need amounting to US\$ 39.4 million. In addition, the Government has estimated a need for procurement of vaccines and veterinary medicine and inputs for the maintenance of fisheries and livestock.

FAO has estimated the need to undertake the urgent measures for relief and initial rehabilitation listed below, on the understanding that the full requirement for rehabilitation can only be assessed after the waters have receded.

6.3 Strategy

Overall responsibility for the relief activity belongs to the Government, represented by the Ministry of Agriculture (for crop agriculture) and by the Ministry of Fisheries and Livestock (for animal health and production).

The Government will be responsible for planning, coordination, transport, manpower and infrastructure support.

FAO can assist the Government in the purchase of equipment and supplies either nationally or internationally.

6.4 Budget	US\$
Seed (Rice, wheat HYV, vegetables, maize)	1,415,000
Fertilizer (DAP, MP)	31,450,000
Machineries (power tiller, power thresher)	3,010,000
Vaccine (Foot and Mouth, PPR)	330,000
Vet. Drugs	200,000
Animal feed	200,000
TOTAL:	36,605,000

III. POST-FLOOD ASSESSMENT AND REHABILITATION SUPPORT

Various types of post-flood assessment and rehabilitation support can already be anticipated. To this effect, UNDP has initiated consultations with the national authorities, UN Agencies and interested donors and NGOs. As mentioned earlier, it is anticipated that a second appeal, covering the needs for rehabilitation, will be issued once a thorough assessment has been conducted.

In regard to rehabilitation work, the Government attaches the highest importance to the immediate restoration of the highway between Dhaka and Chittagong in order to avoid serious disruption of economic activities. The Government estimates a total requirement for US\$ 73 million of which **US\$ 19 million** is urgently required.

IV. SUMMARY

TOTAL BUDGET FOR RELIEF AND INITIAL REHABILITATION

The total budget breakdown by area for this joint UN appeal is as follows:

1. Health	US\$ 8,766,000
2. Food (immediate relief)	US\$ 58,350,000
Food (Protracted relief)	US\$ 50,000,000
3. Shelter	US\$ 25,000,000
4. Water and Sanitation	US\$ 10,000,000
5. Education	US\$ 34,300,000
6. Agriculture	US\$ 36,605,000
Total requirement:	US\$ 223,021,000

IMPLEMENTATION MECHANISM

This is a joint UN appeal in support of the Government of Bangladesh, and it is therefore envisaged that donors could donate their contributions through the UN Office for the Coordination of Humanitarian

Affairs (OCHA) or directly to the respective implementing UN agencies, the Government of Bangladesh or NGOs. All components will be implemented by counterpart government ministries and NGOs. At the field level the appropriate UN agencies will be responsible for monitoring and reporting on the progress of work. The budget for each sector includes operational support costs.

The overall monitoring of national implementation for the contributions made in response to this appeal will be conducted jointly by the Ministry of Disaster Management and Relief in liaison with the Coordination Cell within the Ministry of Foreign Affairs and the UNDMT.

ANNEX

Contributions for Emergency Assistance to Flood Victims in Bangladesh reported to OCHA as of 4 September 1998

Donor	Item/Amount	Channel	USD Value
UN System			
OCHA	USD 50,000	OCHA	50,000
	2 zodiac-type boats complete with engines	OCHA	20,000
UNESCO	USD 40,000		40,000
UNICEF	USD 500,000		500,000
UNHCR	4,000 pieces of plastic sheeting	Bilateral	25,000
WFP	USD 200,000	UN	200,000
WHO	15 million water purification tablets, 25,000 ringer lactate solution bags, bleaching powder	Bilateral	240,000
Inter-Governmental Organizations			
Asian Development Bank	Redirection of savings from ongoing projects	Bilateral	12,000,000
ECHO	XEU 1,000,000	IFRC, OXFAM	1,111,111
Governments			
Australia	50,000 MT of food aid	Bilateral	++
Canada	CAD 254,200 (confirmed)	NGOs, ICDDR,B	168,344
	CAD 100,000 (to be confirmed)	NGOs, ICDDR,B	66,225
Denmark	DKK 250,000	NGOs	37,037
	DKK 250,000	NGOs	37,037
	DKK 1,500,000	Danish Red Cross	222,222
Germany	DEM 489,000	IFRC	276,271
	Cash	NGOs	approx. 70,000
	1 UNDAC member	OCHA	++
Italy	1,700 MT of wheat, Cash	OCHA	++, 40,000
Japan	350 plastic sheets, 8 emergency health kits, water purification tablets (Approx. JPY 29,908,995)	Bilateral	209,154
Luxembourg	USD 168,000	OCHA	168,000

Netherlands	NLG 252,500	Neth. Red Cross	126,250
	USD 200,000 (pledge to be confirmed)	Neth. Red Cross	200,000
	Cash	Embassy/NGOs	50,000
Norway	USD 50,000	OCHA	50,000
	NOK 1.155 million	OCHA	153,386
	NOK 1,345,000	local NGOs	178,619
Sweden	SEK 1,000,000	Swedish RC/IFRC	126,582
	SEK 982,100	Diakonia	124,316
	SEK 997,000	Swedish church council	126,203
	SEK 380,000	Interlife	48,101
	1 UNDAC member	OCHA	++
Switzerland	USD 65,000	IFRC	65,000
United Kingdom	GBP 150,000	Oxfam/Centre for Dev't Services	245,000
	GPB 400,000	NGOs	655,738
	Bridging materials of GBP 3,000,000	Bilateral	4,918,033
USA	USD 1.3 million	CARE	1.3 million
	USD 262,000	ICDDR,B	262,000
	USD 25,000	USAID/BHR/OFDA	25,000
	200,000 MT of wheat	Bilateral/WFP	40 million
Other			
Canadian Red Cross	CAD 500,000	IFRC	331,126
Danish Red Cross	DKK 300,000	IFRC	44,444
German Red Cross	DEM 100,000	IFRC	56,497
Iceland Red Cross	ISK 200,000	IFRC	2,976
Republic of Korea Red Cross	USD 10,000	IFRC	10,000
Swedish Red Cross	SEK 470,000	IFRC	59,494
TOTAL			64,639,166

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**UNICEF'S APPEAL FOR EMERGENCY
ASSISTANCE FOR THE CHILDREN AND WOMEN
OF BANGLADESH AFFECTED BY THE FLOOD
DISASTER OF 1998**

APPEAL FOR US\$8 million

The UNICEF component of the consolidated UN Appeal for
the Flood Emergency of 1998



UNICEF Bangladesh

September 6, 1998

INTERNATIONAL EMERGENCY APPEAL FOR THE CHILDREN AND WOMEN OF BANGLADESH AFFECTED BY THE FLOOD DISASTER OF 1998

A Proposal for Emergency Relief and Rehabilitation prepared by UNICEF Bangladesh

1. OBJECTIVE

The objective of this appeal by UNICEF as part of the wider UN appeal is to solicit contributions for emergency relief and rehabilitation of people affected by the flood disaster of August/September 1998. The Appeal concentrates on providing emergency relief to the most vulnerable - children and women, particularly the landless and homeless, during the period of the floods (until the end of September) and in the immediate post flood period (October –December).

UNICEF is focusing its contribution in four main areas:

- Primary Health Care,
- Supplementary Food,
- Water and Environmental Sanitation
- The replacement of school text books and supplies

These materials provide a balance of emergency relief, (food, medicine water purification tablets) and rehabilitation (water supply repairs and learning/teaching materials).

2. BACKGROUND

Bangladesh is currently facing one of the most severe floods in living memory. 47 (out of 64) districts are affected. The situation in many districts is still continuing to deteriorate, even after at least six weeks of severe flooding (since mid July). With continuing heavy rain upstream (outside of Bangladesh) the increased snow melt from the Himalayas and the very high tides in the Bay of Bengal, it is already apparent that many of the rivers will not fall below the danger level before the end of September.

It is estimated that at least two thirds of the land area of Bangladesh is now under water. According to the Ministry of Water Resources the present flood is the longest on record. It is the extended duration of this flood, as well as the extensive inundation are proving to be a catastrophic combination.

More than 21 million people are severely effected – having been displaced or having lost their homes completely. Some emergency shelters have been set up (mainly in schools) but these are severely overcrowded. This overcrowding combined with shortages of food, safe drinking water, and adequate safe sanitation facilities are the almost perfect breeding ground for a major disease outbreak and public health crisis. As the flood-waters begin to recede, the chances of one or more epidemics will increase even further. On top of this, the already poor nutritional status of children and women will deteriorate even further.

3. RESPONSE TO THE DISASTER

In response to this disaster, the Government of Bangladesh has mobilized all resources and personnel to mitigate the suffering of the victims. The government has already distributed nearly US\$1 million in cash assistance, nearly 70 metric tonnes of mainly rice. More than 4000 medical teams are operating in the flood affected areas. Reports from field teams report that the Government distribution network is working efficiently and supplies are reaching the most severely affected.

A large number of NGOs are also now fully mobilized to provide further support for flood victims, supporting the Government's initiatives and extending their own networks to reach those most in need.

UNICEF Bangladesh has mobilized its team of field workers (based in 17 different locations) to provide updated situation reports from each of the districts they cover. A number of programme staff are also involved in a series of ongoing assessment missions with Government counterparts and with the United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA) mission.

Already UNICEF staff have been involved in situation assessments in 9 of the most severely affected districts. A further programme of assessment missions has been finalized with Government and NGO partners and these will take place over the next week. These, along with the data provided by other Government and NGO sources are providing UNICEF with an ever clearer picture of the true magnitude of this disaster and a stronger ability to programme emergency relief more effectively.

Already UNICEF Bangladesh reprogrammed US\$500,000 from other programmes for emergency relief supplies including ORS, IV Fluid, water purification tablets and emergency high protein food supplies. With the approval of the Executive Director of UNICEF a further US\$300,000 has been utilized from UNICEF's Emergency Programme Fund at New York Headquarters.

As the disaster continues to unfold it is clear that there is a massive need for emergency food supplies, essential drugs, water supply and sanitation equipment. The desperate conditions evident in the emergency shelters and on the small areas of land that haven't yet been inundated are a breeding ground for disease. As the flood waters recede the situation will become even worse. In the longer term UNICEF will also need to support the re-equipping of schools with textbooks.

4. GOVERNMENT RESPONSE

Bangladesh appealed for emergency assistance from the International Community on August 26. The appeal was made to help Bangladesh meet the immediate and urgent needs of those directly affected by the flooding and to assist in the post flood rehabilitation process, including repair to infrastructure and helping to ensure security of food supplies. The appeal listed a requirement for US\$112.26 million for immediate

relief and a requirement for US\$460.74 million for rehabilitation including approximately US\$250 million in additional food aid.

The Government has asked for assistance in the following form:

- Food aid (Rice and Wheat)
- Medicine supplies including water purification tablets, ORS & IF Fluids
- Shelter materials including C.I. Sheets, plastic sheeting and cash to be disbursed in TK 1000 (US\$21) grants to assist families in purchasing local building supplies.
- Supplementary food for the most vulnerable - Baby food e.g., milk powder, high protein biscuits etc.
- Support (cash/materials) for the rehabilitation of infrastructure including roads, railways, bridges, schools and health centres

5. UNICEF'S RESPONSE TO THE GOVERNMENT APPEAL

The focus of UNICEF's efforts has been and will continue to be to meet the immediate needs of the most vulnerable - children and women, particularly the landless over the next two - three months. Identification of beneficiaries and distribution of supplies will be through established Government channels with support from NGO networks.

An assessment mission from the UN Office for the Coordination of Humanitarian Affairs arrived in Dhaka at the end of August to assess the situation and help prepare the consolidated UN Appeal. UNICEF Project Officers specializing in Health, Nutrition, Water, Sanitation and Field Implementation have participated in this mission. UNICEF has also taken responsibility for coordinating the Health, and Water and Sanitation Inter Agency Coordination Committees.

In addition UNICEF has organized separate assessment missions comprising central and district level government officials and NGO partners for a rapid assessment of the situation of the most vulnerable in the most severely affected areas

On the basis of these assessment missions, the combined UNOCHA missions, official Government sources as well as information from UNICEF's field team and NGO networks, UNICEF is focusing its support on the following FOUR major areas:

- Primary Health Care
- Supplementary Food
- Water and Environmental Sanitation
- Education supplies

II THE UNICEF COMPONENT OF THE JOINT UNITED NATIONS APPEAL

1. HEALTH

1.1 Objective

To ensure that basic medical supplies and drugs are available to treat major diseases such as diarrhoea, malaria, ARI etc and ensure that there are sufficient supplies of vaccines to treat outbreaks of common diseases and provide enhanced immunization coverage to prevent and control epidemics.

1.2 Background

The UN assessment mission, UNICEF's own field network, specific assessments by UNICEF's own team with Government and NGOs all confirm that there is a need for more ORS and IV fluid to treat the rapidly increasing number of cases of diarrhoea. More than 20 million people are severely affected – having been displaced or having lost their homes completely. Some emergency shelters have been set up (mainly in schools) but these are severely overcrowded. This overcrowding combined with shortages of food, safe drinking water, and adequate safe sanitation facilities are the almost perfect breeding ground for major disease outbreak and public health crisis. As the flood-waters begin to recede, the chances of major disease outbreaks will increase even further. On top of this the already poor nutritional status of children and women will deteriorate even further.

1.3 Strategy

In order to ensure that basic medical supplies and drugs are available to prevent and manage disease outbreaks, distribution will be through established Government channels – supported by the NGO networks that already support the ongoing UNICEF/Government of Bangladesh programme of cooperation.

UNICEF will be responsible for procuring and importing (where necessary) these essential drugs as well as ORS and IV fluid. UNICEF will monitor the movement of supplies from Government warehouse at the district level. UNICEF's strong field team (30 district based Project Coordinators) will also monitor distribution of supplies to identified beneficiaries on a sample basis.

1.4 Budget

The estimated budget for this emergency healthcare proposal is US\$4,354,000

Sl.#	Drug	No. Of patient	Assumptions	Amount Required	Cost in US\$
1	ORS	2,000,000	6 pkt/person	12,000,000	500,000
2	IV Fluid	300,000	2 bags/person	600,000	510,000
3.	Chloroquine Tab.	120,000	10 tab/person	1,200,000	15,000
4.	Quinin Tab.	20,000	42 tab/person	840,000	39,000
5.	Quinin Inj.	20,000	42 amp/person	840,000	140,000
6..	Syr. Amoxicillin	750000	1 bottol/child	750,000	330,000
7.	Cap Amoxicillin	1,000,000	20 cap/patient	20,000,000	555,000
8	Tetracycline eye ointment 1%	1,000,000	1 tube/child	1,000,000	190,000
9.	Cap tetracycline	2,000,000	24 cap/pat	48,000,000	662,000
10.	Tab Paracetamol	4,000,000	6 tab/pat	24,000,000	15,000
11.	Syr. Paracetamol	2,000,000	1 bottle/ child	2,000,000	540,000
12.	Tab. Chloropheniramine maleate	500,000	3 tab/pat	1,500,000	3,000
13.	Tab. Metronidazole	1000,000	24 tab/pat	24,000,000	22,000
14.	Benzoic Skin ointment	1000,000	1 tube/patient	1,000,000	370,000
15.	Disposable Syringe for Measles campaign	3,000,000	1 syr./child	3,050,000	270,000
16.	Inceneration Box	For disposal of used syringes		60,000	180,000
17.	Cotton roll (100 gm)	30,000 rolls.			13,000
Total					US\$4,354,000

2 SUPPLEMENTARY FOOD

2.1 Objective

To provide emergency supplementary feeding - high protein food (H/P Biscuits/ and UNIMIX, or the local equivalent) to meet, partially, the nutritional needs of the most vulnerable children and women. This will be in addition to any other supplementary food distributed.

2.2 Background

Many million of people have been displaced and cut off from their regular sources of food and income. Many of those affected already had a poor nutritional status – Bangladesh has amongst the highest rates of malnutrition in the world. It is clear that with the massive displacement of people and the severe overcrowding of shelters the already poor nutritional status of children and women will deteriorate even further.

2.3 Strategy

Distribution of high protein supplementary food to the most severely affected children and women. The two food items generally distributed in an emergency situation are high protein biscuits and UNIMIX for younger children. Distribution will be through established Government channels – supported by the NGO networks that support the ongoing UNICEF/Government of Bangladesh programme of cooperation.

UNICEF will be responsible for procuring and importing these biscuits and if necessary UNIMIX. If possible UNICEF will procure the locally produced equivalent of UNIMIX. UNICEF will monitor the movement of supplies from Government warehouses at the district level. UNICEF's strong field team (30 district based Project Coordinators) will also monitor distribution of supplies to identified beneficiaries on a sample basis.

2.4 Budget

The estimated cost for this emergency food supply proposal is US\$1,000,000

Food		
High Protein Biscuits		US\$500,000
UNIMIX or local equivalent		US\$500,000

3 WATER AND SANITATION

3.1 Objective

To enable urgent repairs of handpumps and platforms around existing tubewells in order to rehabilitate of community water supplies as well as providing safe sanitation facilities in order to prevent the outbreak of disease.

3.2 Background

Government and NGO assessments point to widespread damage to water pumps throughout the flood affected areas. As the flood waters recede, the repair of these facilities will be critical in preventing outbreaks of disease.

3.3 Strategy

The Government will undertake the urgent repair of handpumps and platforms. Distribution of the spare parts, repair kits and pipes will be through established Government channel (Department of Public health and Engineering - DPHE)

UNICEF will be responsible for procuring and importing (where necessary) these supplies. UNICEF will monitor the movement of supplies from Government warehouse at the district level. UNICEF's strong field team (30 district based Project Coordinators) will also monitor distribution of supplies to identified beneficiaries on a sample basis.

3.4 Budget

The estimated cost for this proposal for water and sanitation supplies is US\$2,197,000

Description	Quantity	Rate (US\$)	Total (US\$)
Latrines	10,000	7.3	73,000
Repairing platforms around the TW	10,000	21	210,000
Installation of new TWs			
Tara	5,000	160	800,000
Shallow	4,000	40	160,000
Deep	2,000	280	560,000
Spare parts for No. 6 Hand Pumps	13,000 sets	10	130,000
Spare parts for Tara HPs (Kit B)	8,000 sets	22.5	180,000
Arsenic field test kits/refills	700 sets	120	84,000
TOTAL			US\$2,197,000

4 EDUCATION

4.1 Objective

To provide materials to schools to facilitate the rapid re-establishment of classroom learning in order to minimize, as much as possible, the disruption in children's learning.

4.2 Background

Schools in flood affected districts have been closed. 80 % have been damaged and the remaining 20% are now being used as shelters. In the schools that have been flooded it is likely that most text books and other classroom materials will have been destroyed. In the schools that are being used as shelters the damage or loss of materials is substantial. There will need to be a massive re-equipping of the schools in affected districts in the wake of this disaster.

4.3 Strategy

An assessment of the damage to schools will be made when the flood waters recede. Distribution of the textbooks will be through established Government channel (Department of Primary Education - DPE)

UNICEF will be responsible for procuring and distributing these supplies through DPE. UNICEF will monitor the movement of supplies from Government warehouse at the district level. UNICEF's strong field team (30 district based Project Coordinators) will also monitor distribution of supplies to identified beneficiaries on a sample basis.

4.4 Budget

The estimated cost for this proposal for the replacement of school textbooks is US\$300,000

Education Supplies/Equipment	US\$300,000
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SUMMARY OF FUNDING REQUIREMENTS

Health	US\$ 4,354,000
Food	US\$ 1,000,000
Water and Sanitation	US\$ 2,197,000
Education Supplies/Equipment	US\$ 300,000
Contingency	US\$ 149,000
TOTAL	US\$ 8,000,000

別添 10 洪水被災に対する各援助機関の対応 (国連OCHAリスト)

Bangladesh Floods - Contributions reported to OCHA as of 16 September 1998

Donor	Commitment		Disbursement Mechanism			USD
	Cash	In-kind/Purpose	Govt.	NGO	Others	
UNDP/OCHA	USD 60,000		Govt.			50,000
OCHA		2 Zodiac boats complete with engines	Govt.			28,000
UNESCO	USD 40,000		Govt.			40,000
UNICEF	USD 600,000		Govt.			500,000
UNHCR		4,000 Pcs of plastic sheets worth USD 25,000				25,000
WFP	USD 200,000		Govt.			200,000
WHO		16 million water purification tablets, 25,000 ringier lact. solution bags, bleaching powder, worth USD 240,000	Govt.			240,000
ADB	USD 12,000,000	Redirection of savings from ongoing Projects				12,000,000
AGFUND	USD 50,000				WHO (?)	50,000
European Community	ECU 720,000				IFRC	800,000
Humanitarian Office (ECHO)	ECU 260,000			OXFAM		311,411
APEC	USD 200,000				OCHA	200,000
Australia	AUSD 40,000	For food, medicine, temp. shelter		BRAC		33,708
	AUSD 30,000			ICDDR		16,854
	AUSD 10,000	For food, medicine, temp. shelter		Kumudini Hospital		5,618
Japan	USD 50,000		Govt.			50,000
	NU 1,000,000		Govt.			
Canada		12,500 MT of wheat worth CAD 2.5 million	Govt.			1,655,629
	CAD 125,725	For water purification tablets and ORS			CARE	215,712
	CAD 100,000				ICDDR	
	CAD 284,200				Can. Embassy/ local NGO	168,344
Denmark	DKK 1,500,000				Danish Red Cross	222,222
	DKK 250,000			Gomoshasthaya Kendra		37,037
	USD 10,000			Nari Ummayan Shahini		10,000
	USD 13,000			Impact Foundation Bangladesh		23,000
France	FRF 600,000				Embassy/ UNICEF (?)	84,459
Germany	DEM 400,000				IFRC	276,271
	DEM 85,000			BRAC		48,023

	DEM 28,000	For provision of medicaments and medical services									15,730
	DEM 190,000	For provision of medicaments and medical services									58,180
	DEM 400,000	For 2 water purification units and services									224,719
India		20,000 MT of rice									100,000
		Emergency supply of medicines									100,000
Italy		1,700 MT of wheat									40,000
	USD 40,000										209,154
Japan		Plastic sheeting, Emergency Health Kit, Water Purification Tablets									40,000
	USD 2,800,000										2,000,000
Luxembourg											168,000
	USD 185,000										161,202
Liechtenstein											6,755
	LUF 2,800,000										328,250
Netherlands											50,000
	CHF 10,000										50,000
	NLG 248,000										50,000
	USD 200,000										50,000
	USD 50,000										50,000
New Zealand											50,000
	USD 100,000										50,000
Norway											50,000
	USD 50,000										50,000
	NOK 1,155,000										153,386
	NOK 1,348,000										178,619
Sri Lanka											100,000
	USD 100,000										126,582
	SEK 1,000,000										124,316
	SEK 982,100										126,203
	SEK 897,000										48,101
	SEK 380,000										625,000
	SEK 5,000,000	For primary health care, supplementary food, watsan and education									375,000
	SEK 3,000,000										65,000
	USD 05,000										4,918,033
Switzerland											332,895
	GBP 202,127										122,951
	GBP 75,000										107,162
	GBP 88,369										

			Centm for Rights and Dev't		
	GBP 188,348				272,702
	GBP 141,075		SAMATA		234,849
	GBP 24,571		Islamic Relief		40,280
	GBP 128,280		Bangladesh Health & Population Consortium		211,803
	GBP 23,480		Poll Free		38,360
	GBP 33,900		USHA		55,573
	GBP 10,000,000	Commitment for food aid			16,393,443
	GBP 10,000,000	Commitment for agricultural recovery and infrastructure rehabilitation			16,393,443
United States		1 Cargo Plane load of plastic sheathing, water purification units etc.	Govt.	UNICEF	1,300,000
	USD 282,600			ICODRB	262,000
	USD 25,000		Govt.		25,000
		300,000 MT wheat	Govt.		48,000,000
		180,000 MT wheat		WFP	16,000,000
Austrian Red Cross	CHF 30,000			IFRC	20,270
British Red Cross	GBP 28,000			IFRC	32,787
Canadian Red Cross	CAD 3,000			IFRC	3,311
Danish Red Cross	DKK 300,000			IFRC	44,444
German Red Cross	DEM 100,000			IFRC	56,497
Iceland Red Cross	ISK 200,000			IFRC	2,975
Japanese Red Cross	JPY 10,000,000			IFRC	89,930
Rep. Of Korea Red Cross	CHF 10,000			IFRC	6,756
Netherlands Red Cross		Services and Personnel		IFRC	10,135
Swedish Red Cross	SEK 470,000			IFRC	39,494
US Red Cross	USD 10,000			IFRC	10,000
US RCI/American Express	USD 20,000			IFRC	20,000
TOTAL					127,758,080

*Value not specified

