

V. Justification for bilateral, regional, or international support of the project:

The St. Lucian Government has insufficient financial resources to obtain the equipment. External support is requested.

The project addresses one of the more serious potential hazards in a disaster situation, that is, the lack of safe drinking water.

VI. External financial/technical assistance:

The estimated required external financial assistance for the purchase of the equipment is EC\$ 61,300.

No technical assistance is required.

VII. Designation of Agency responsible for carrying out the project:

The St. Lucian Central Water Authority, under the Ministry of Youth, Community Development, Social Affairs and Sports, will be responsible for the management of the project.

Drafted by: Stanislaus James

Government of the Turks and Caicos IslandsI. Disaster Preparedness - Emergency Water Supply

II. Description of need or problem:

The island of Grand Turk is seven miles long and a mile wide. Most of the island has an elevation of from 0-10 feet above sea level, the exception being a ridge of high ground, at an elevation of 70-80 feet, which runs along the east coast for a distance of about 6 miles. The island, which has a population of 3,500, has no fresh ground water supplies. Drinking water is obtained by collecting rainwater from catchments and storing it in tanks, some of which are public and some of which are privately owned. The population and water storage tanks are almost wholly confined to the low-lying areas. There is a danger that during hurricane conditions a tidal surge of say, 5 feet or more, could result in serious contamination of the islands water supplies. Even without such a surge, experience in previous hurricanes has shown that rain driving across the island is heavily laden with sea water and contamination of the water tanks results - even when connections from catchments to tanks have been broken. On a more positive note, fresh water is stored in circular steel tanks sited above ground at the U.S.A.F. base and the former U.S.N. base. While the base commander's responsibilities are clearly laid down (in disaster conditions he is responsible only for U.S. citizens), one may optimistically assume that some water supplies would be available from the U.S.A.F. and some storage capacity available at the former Navy base. The townsfolk would then be able to rely on some 0.75 Mg. of available potable water. Given a distribution of 5 gals. per head per day, this would give a reserve of about six weeks supply. Before the town's storage tanks could be put back into use, they would have to be drained and cleaned out. Thereafter, the rainfall is so unreliable that a dry spell of three months is not unusual and there may be insufficient rain to charge the tanks for some time. The possibility of bringing in seaborne supplies from the United States or elsewhere is not to be depended upon because a near miss from a hurricane might easily destroy the island's only jetty.

III. Description of project and objectives:

Assuming disaster conditions, the objective is to provide a potable water supply for the people of Grand Turk for a period of 150 days allowing a consumption of 5 gallons per head per day.

It is proposed to build a storage reservoir of capacity 2 Mg at a site situated on the ridge. The roof of the tank would serve as a catchment and this would be supplemented by a concrete catchment of some 6,500 sq. yds. in area. A small pumping facility would be required to lift water from the concrete catchment area to the tank and pipelines would be constructed to connect the new reservoir to two of the town's tanks.

IV. Actions by country:

Government would undertake to provide the extra tanker capacity which would be required during the period of emergency when townsfolk were being supplied directly from the new reservoir.

Government would provide the land for the reservoir and carry out all necessary earthworks using PWD personnel and equipment.

V. Justification for external support of the project:

The economy of the Turks and Caicos Islands is such that it could not provide these emergency water storage facilities from its own resources. Yet it is just this type of deficiency in a territory's infrastructure which the present seminar has highlighted as a potential and serious hazard in a disaster situation. It is submitted that this is a project worthy of consideration by donor agencies. In the event of a catastrophe, there is little the population can do to help themselves if they are without water. Given a sufficient water supply they will be able to undertake rehabilitation tasks for which outside help would otherwise have to be sought.

VI. External financial assistance:

External financial assistance would be required as follows:

Design and construction of 2 Mg tank	800,000
Construction of Catchment	50,000
Pumping equipment, etc.	10,000
Pipeline	<u>25,000</u>
	885,000

Pending design of scheme say US\$ 900,000

VII. Agency responsible for project:

The Ministry of Public Works and Utilities would be responsible for implementing the project and the works would be under the supervision of the Public Works Department.

Drafted by: R.J. Halstead

Disaster Preparedness - Hurricane Shelters

II. Description of Need:

The island of Grand Turk is seven miles long and a mile wide. Most of the island has an elevation of from 0-10 feet above sea level, the exception being a ridge of high ground, at an elevation of from 70-80 feet, which runs along the east coast for a distance of about six miles. The population is almost wholly housed in the low-lying areas and is thus vulnerable to any tidal surge which may arise during hurricane conditions. Furthermore, about 80% of the population is housed in wooden buildings which are particularly vulnerable in high winds. In previous hurricanes some of the smaller houses have been lifted bodily into the sea. The remainder of the population lives in houses of sound general construction but with roofs of aluminium or plywood sheeting which also present a hazard in hurricane force winds. Traditionally schools and church halls have been used as shelters and whilst these structures are more sound than the wooden houses, perhaps their greatest attribute is that they assist in boosting morale through the presence of so many family groups under one roof. Undoubtedly none of the shelters used on the island can be considered adequate as a safe house during a hurricane and there is therefore a great need for a shelter or shelters which have been designed purposely to withstand hurricane force winds.

III. Description of project and objectives:

The objective is to find safe accommodation for the population of the island of Grand Turk during a hurricane. The size and elevation of the island is such that half the total population of the country would be in extreme danger given a hit or near miss by a hurricane. Government has therefore been considering a plan to construct a shelter which would house all the inhabitants of the island and would be used generally as a community center. However, it is recognized that a single shelter would have certain drawbacks as regards location relative to population centers, and social and psychological factors. It is considered, however, that a structure of this nature would be similar in cost to four smaller ones having the same gross floor area. The advice of members of the seminar with experience of maximum desirable group sizes will be appreciated.

The building(s) would be of concrete block construction with a concrete shell roof and would be equipped with rest room and kitchen facilities. They would be made available for use by voluntary organizations during normal times.

IV. Actions by country:

Government would provide all land as necessary and all works to ground level would be carried out from the resources of the Public Works Dept.

V. Justification for external support of the project:

The economy of the Turks and Caicos Islands is such that it could not provide such a shelter from its own resources. The recent series of seminars has highlighted the great loss of human life in recent hurricanes and particularly has drawn attention to instances where people have died in large groups as a result of taking shelter in inadequate buildings.

VI. External Financial Assistance:

It is anticipated, subject to production of a detailed scheme, that the project would have a total cost of the order of \$1.4M - or four smaller schemes at a cost of \$0.35M each.

VII. Agency responsible for project:

The Ministry of Public Works and Utilities would be responsible for implementing the project and the works would be under the supervision of the Public Works Department.

Drafted by: R.J. Halstead

VI. SUMMARY OF FINAL PLENARY

Final Plenary Session: Project Review and Summary

At this final session, the project descriptions developed in the committee workshops were summarized and submitted to the assembled delegates for comment and approval. Since the final project documents are presented in Section V. In their entirety, we shall not include summaries here, but, rather, concentrate on delegate comments and suggestions for future action.

Jacqueline Mayers, the Jamaican delegate, summarized the concerns of many of her colleagues in emphasizing the need for:

- dovetailing projects to reinforce relationships between disaster preparedness areas;
- careful consideration of the number and kind of regional disaster institutions to be developed;
- developing the details of country actions and contributions, especially in the area of costs;
- defining expectations concerning government interaction with non-governmental organizations.

Franklyn McDonald pointed out the need for a clearly defined action plan and timetable, and noted that a mechanism for addressing country problems outside the regional project cycle should be developed. Priorities for implementation of the projects must be determined.

Raymond Noel of CARICOM reiterated his organization's commitment to the two regional projects: the UNDRO preparedness proposal and the building code for the Commonwealth Caribbean.

Alejandro Sundermann, USAID/Barbados, stressed the need for governments to establish a national priority for disaster preparedness.

It was agreed that prompt government response to the project proposals was a necessary first step for program implementation; that some mechanism for coordinating both regional and country activities should be developed as soon as possible; and that this organization should be located in the Caribbean region.

VII. COLLECTED CONFERENCE PAPERS

Presentation by Mr. Graham Kelly, the EEC representative

Thank you Mr. Chairman:

In order to confine myself to the time constraints I have prepared a note of my presentation, which you will find in front of you.

The note attempts to define the extent of European Community involvement in Disaster Preparedness, Prevention and Relief and there are two most essential points which I must stress at the outset:

1. Assistance--from the European Community (EEC) as a Community --is complementary to--and may in the event be additional to--any assistance provided on a bilateral basis by the nine member states of the EEC: France, Germany, Italy, Belgium, the Netherlands, Luxembourg, Denmark, Ireland and the U.K.

2. Secondly, assistance from the European Community is contingent upon a request from the state in need and this--I must reiterate--is a precondition of EEC assistance. It will not be volunteered--it must be requested.

Having said that, I must reassure you that the community is entirely sympathetic to the needs of those struck by natural disasters--and to this end makes funds available both under the Lome Convention and outside it.

Under the Lome Convention Article 59 made available to the ACP states--and the OCT states (that is the Overseas Countries and Territories associated with the Community under Part IV of the Treaty of Rome--the non-independent English-speaking Caribbean)--a sum of 150 million EuA (about US\$200 million) as what is termed "exceptional aid". This aid was made available, following a specific request, in two categories:

. Immediate Aid: for the supply of food, medical supplies, tents, clothing and other items essential for the survival of disaster victims--usually in an amount of about US\$400,000 required to be fully disbursed in 3 months.

. Short Term Aid: for the supply of essential foods such as agricultural supplies, fertilizer, seeds, equipment, vehicles, tools, implements, spares, etc.; in this case the funds have to be fully disbursed in 6 months.

Overall, between the two categories, and depending entirely on the magnitude of the emergency and the consequent needs, the Community can provide up to 3.3 million EuA--equivalent to roughly US\$4.5 million.

Under the second Lome Convention, signed in October 1979 and likely to be ratified later this year, with funds commencing early in 1981, the overall amount of 150 million EuA has been increased to 200 million EuA, about US\$250 million--and these funds are in all cases grants--or, if you prefer it, non-reimbursable.

In addition to the Lome Convention there are emergency funds available for non-ACP states under Article 950 of the General Budget of the European Communities--the normal budget of which is 3 million EuA, but following credit

transfers in 1979 some 42 million EuA were in fact spent under this heading.

Additionally, of course, as is well known to all of you, the European Community makes food aid available to all developing countries and special allocations are made available for those with special emergency needs.

As far as preparation and prevention are concerned, the Community has to rely on national and regional European Development Fund (EDF) programs set up under the Lome Convention--and here I must stress again the essential basic requirement for the region--i.e. the Caribbean--to identify its own needs, select its own priorities and apply for its own projects. Right now seven countries in the region have already decided their programs for the 5th. EDF--to run from 1981 to 1985--and although all of them have permitted a small reserve of about 5%, none of them have included amounts for disaster preparedness.

As far as the fifth EDF Caribbean Regional Programme is concerned, the Community has indicated that an amount of about US\$65 million will be available for the Caribbean Regional Projects. So far a list has been compiled totalling over US\$100 million and there has been no mention of disaster preparedness except possibly by way of the Common Services Project for the East Caribbean Common Market (ECCM) countries.

I should also mention at this stage that whatever list is finally agreed for the 5th. EDF Caribbean Regional Countries, it will be for projects related specifically to the ACP and OCT countries associated with the European Community under the Lome Convention--which immediately raises the question whether we should be giving consideration this week to some form of co-financing--perhaps by way of the Caribbean Group for Economic Development, so that non-ACP/OCT territories in the region can be included.

Finally, it may be useful if we take this same Common Services project as a hypothetical example of how the European Community could assist in this current, most important exercise. We have, in the last three months, approved an amount of 4.5 million E.C. dollars--almost US\$2 million--for the setting up of a pool or pools, of expertise to provide common services to the LDC's in the Eastern Caribbean. I can imagine no reason why the administrators of this project should balk if they were to be asked to provide some of these fourth EDF funds to assist with disaster preparedness--and, if necessary provide some form of development bridge until fifth EDF funds can be made available next year.

In conclusion, Mr. Chairman, may I take this opportunity to thank the organizers of this gathering for giving the European Community the opportunity to reiterate its avowed intention to assist development in all its forms in the Caribbean region. We in the Community wholeheartedly support your efforts to try to minimize the trauma caused to innocent people by the natural disasters endemic to the region and we stand ready to assist in this regard in any way we can. It is up to countries in the region themselves now to determine their needs and let us know how we can assist most effectively.

Thank you.

Presentation by Mr. Lars Erikson, the UNDP representative

The primary objective of the United Nations Development Programme is to support the efforts of the developing countries to accelerate their economic and social development by providing them with assistance in the field of technical co-operation, geared to their national development plans and priorities. The assistance provided by UNDP should be for the promotion of increasing self-reliance in the developing countries with regard to the managerial, technical, administrative and research capabilities required to formulate and implement development plans and policies, including the management and development of institutions and enterprises.

To achieve these objectives, UNDP pays special attention to the following subject matters:

1. development of human resources through transfer of skills and know-how and through training activities;
2. preparation of development plans, prefeasibility and feasibility studies, and the acquisition of basic information or data;
3. transfer, adaptation, development and diffusion of technology;
4. development of institutional infrastructure;
5. development of services such as administrative services, consultancy and engineering services, etc.

UNDP does not give loans or grants. Its contributions to the developing countries come in the form of long-term experts or short-term consultants, fellowships, seminars and other forms of training activities. UNDP also provides equipment whenever this is needed in order to achieve the objectives of a specific project, but equipment is usually not a central component of our activities. It has rather a supportive role in relation to the other components. Particularly over the last years, UNDP has also worked through sub-contracting of institutions or enterprises to carry out specific tasks, such as feasibility studies.

Since the beginning of the 1970's, UNDP has been programming its activities on the basis of what we call Indicative Planning Figures and programming cycles of five years duration. The system of Indicative Planning Figures means that UNDP's resources are distributed among developing countries primarily on the basis of their national income per capita and size of the population. These IDPF's are established for periods of five years; the first programming cycle covered the period 1972-76, the second cycle 1977-81 and the third cycle will start in 1982. A certain proportion (around 15-20 percent) of the overall resources are assigned to regional, interregional and global projects.

To give a more precise idea of the magnitude of UNDP assistance, it can be mentioned that the IPF's for Latin American countries for the period 1977-81 vary between 5 and 20 million dollars. In the case of the Dominican Republic, to give one specific example, the IPF is 7.5 million dollars, which means that we spend here an average of 1.5 million dollars per year on technical assistance. The average size of our projects is around half-a-million dollars, but, of course, there is a large variation from very small projects (30-40,000 dollars) up to projects in the magnitude of a couple of million dollars.

In most cases, the Governments, with the cooperation of UNDP, prepare Country Programmes that coincide, as far as timing is concerned, with the IPF periods. Therefore, in the majority of the countries, we are now starting the preparation of Country Programmes for the period 1982-1986. For this reason, as far as my organization is concerned, this is a very appropriate moment to suggest and start preliminary formulation of new projects for execution during that period. As far as the present year, as well as 1981, are concerned, I think it would, generally, be difficult to include new projects in our activities, although I cannot speak, in this regard, with any detailed knowledge of the programming situation in other countries.

UNDP's regional programme is also formulated on the basis of the same five-year periods, and from the point of view of availability of resources, I believe we have more or less the same situation as in the case of national programmes.

Now, in regard to UNDP's role as it relates specifically to disaster preparedness and projects in this area, the Administrator has very recently provided the UNDP Resident Representatives with revised instructions concerning our role in respect of pre-disaster planning, and I would like to quote the relevant paragraphs:

"Responsibility for international action in financing and execution of projects with disaster prevention and mitigation effect lies primarily with the specialized agencies of the United Nations and the international financing bodies. UNDRO is nonetheless responsible for promoting such projects, that is to say, for ensuring that due recognition is given in development assistance programmes to disaster prevention activities. UNDP Resident Representatives should therefore draw the attention of governments as well as funding agencies to the economic benefits to be obtained from investment in pre-disaster works. It has been shown that in a number of developing countries the regular annual losses of property and production from disasters can be substantially decreased or even eliminated by non-recurring and often modest investment in preventive projects."

"During the process of formulation of a country programme for financing from the UNDP IPF, the Resident Representative should do all that he can do to see that attention is given to the need for progressive planning for disaster prevention and that due consideration is given to this in the allocation of IPF funds."

It is quite clear from what I have just quoted, that UNDP funds can in principle very well be used for projects in the area of disaster preparedness and considering the general mandate and terms of reference of UNDP, my personal interpretation is that we could in the first place finance certain activities in the fields of training, institution-building, planning and research related to disaster preparedness. This refers both to national and regional projects.

Santo Domingo, D.R.
19 May 1980

Presentation by Mr. David Coore, the IDB representative

The Inter-American Development Bank is very pleased to be participating in this conference and to make whatever contribution we can to its deliberations.

The Bank has always worked closely with those international organizations that are directly concerned with the prevention and relief of natural disasters. As a Development Bank we have to be concerned with the effects of Natural disasters on our member countries -- not only for reasons of humanitarian impulse but also because any large scale natural disaster impedes the development process of the country involved and may in some cases directly affect the successful execution of existing Bank projects. Since 1970, the Bank has given financial assistance and technical cooperation on a number of occasions arising out of natural catastrophes, e.g.:

- Peru in May 1970
- Chile in July 1971
- Honduras in Sept. 1974
- Guatemala in Feb. 1976
- Jamaica in July 1979
- Rep. Dom. in Sept. 1979
- Colombia in Feb. 1980

While we feel that our contribution has been of value in all three cases, we recognize that it has not been as effective as we might have wished because of the difficulty of accomodating emergency activities within the normal operating procedures of the Bank that are geared for the long and medium term needs of countries and not for ad-hoc responses. Whenever these situations have arisen in the past, therefore, there has been some uncertainty as to exactly how far and how fast the Bank can move in response to requests for assistance. Since bureaucracies have an innate dislike of improvisation, this has created both operational and policy problems within the institution. In particular, the Bank has never really addressed itself to the central theme of this conference -- namely preparedness for avoiding or minimizing the damage that natural phenomena like hurricanes, earthquakes, etc., can cause as distinct from rehabilitation and reconstruction after the damage has taken place.

I am happy to say, however, that the Bank has now recognized the relevance and importance of this subject and has very recently taken actions that will, I think, be of interest to this conference.

Firstly, we have been fortunate to get onto the staff of the Bank my colleague Mr. Ricardo Peralta as an expert advisor and consultant in the whole field of disaster prevention and relief. Mr. Peralta played a notable role in the reconstruction of his own country--Guatemala--after the devastating earthquake in 1976 and his hard-won knowledge and experience is available to the Bank and its beneficiaries.

Secondly, just a few weeks ago, the Board of Executive Directors of the Bank approved a set of policies and operating procedures that indicate the areas and ways in which the Bank can assist in the kinds of programmes that may emerge from this conference.

These policies and procedures are set out in an official policy document which will guide the Bank's activities in this area. I cannot circulate it as I do not think it has yet been cleared for general circulation. I will, however, read some relevant extracts which I think will give you a fair picture of the kind of assistance that is potentially available from the Bank.

From these extracts I think you can see that, whatever may have been our shortcomings in the past, the Bank now has a clear and positive approach to contributing towards the kind of projects that hopefully will emerge from this conference.

That is the good news -- the bad news is that notwithstanding the foregoing there are a number of important constraints on our ability to help, which you will have to bear in mind.

Firstly, the resources of the Bank, whether for loans or technical co-operation, can only be used for projects within member countries of the Bank. Only six of the countries participating in this conference meet this qualification - namely - Barbados, Guyana, Haiti, Jamaica, Republica Dominicana and Trinidad and Tobago. There is one qualification on this however. The IDB can make loans and Technical Assistance available to the Caribbean Development Bank for the purpose of projects within the region served by that institution.

Secondly, the Bank cannot make grants or general purpose donations. We can, however, provide a limited amount of what is called non re-imbursable technical co-operation assistance. As far as the beneficiary is concerned, this has the same financial effect as a grant, but it has to be for a specific defined purpose or project within the norms of the Bank and within a specific member country or group of member countries.

Thirdly, in order to qualify for loan assistance or technical co-operation, projects have to be put forward by Governments or with the approval of Governments of the member countries and have to be analyzed and approved by the relevant departments and entities within the Bank in accordance with the Bank's operating procedures. This is obvious of course, but, as a good and loyal bureaucrat, I have to make a specific disclaimer of any power to commit the Bank in advance to any particular project or group of projects.

Even within these caveats and limitations, however, I do feel that the Bank is in a position to give useful help to some, at any rate, of the projects that may eventually emerge from this conference.

Two final points:

(a) Major development projects funded by the Bank usually have a long period of gestation, anywhere from 6 months to one year.

However, in the case of technical co-operation assistance and emergency loans for rehabilitation and reconstruction we do speed up our procedures considerably and a decision can usually be obtained within 8-10 weeks. In some types of technical co-operation the period may in fact be much shorter. Much depends on the extent and quality of the initial preparation of the request.

(b) The second point, which follows from the first, is that the entity within a country that is responsible for disaster preparedness and which may wish to obtain IDB assistance for any project should inform itself thoroughly beforehand as to the procedure for making applications to the Bank and as to the standard types of information that the Bank requires in support of loan requests. This information is not difficult to come by because in each member country there will be functionaries in the Central Bank or the Ministry of Finance who are familiar with the Bank's procedures. In addition there is a local representation of the Bank in each member country staffed by a number of specialists who will give whatever information or assistance is required in the preparation of loan requests. In practice, it saves a lot of time if the borrowing entity makes contact with the representative and discusses the project or the proposal informally, before the formal request is submitted.

Extracts from Policy Document

Definition of term "natural disaster"

For purposes of this policy, the term "natural disaster" is considered to refer to any emergency due to the action of natural forces that causes deaths, damage to the physical and service infrastructure of any member country, or a loss of material goods so extensive that economic and social development is affected.

General Policy

For assistance to countries suffering natural disasters, the present policy envisages four stages that must be dealt with and that usually overlap:

- A. Prevention
- B. Emergency
- C. Rehabilitation
- D. Reconstruction

A. Prevention stage

This stage consists in action designed to prevent or reduce the risks of a natural disaster; it covers the protection of human life, the infrastructure, facilities, and objects.

B. Emergency stage

1. Identification of emergency

An emergency is the situation at the moment the crisis due to the natural disaster occurs, and is characterized by the following features:

- a) Normal activity is disrupted in the stricken areas or throughout the country.
- b) There is destruction of public services, housing, public and private buildings, industrial and commercial facilities, roads, and so on.
- c) It becomes necessary to:
 - 1) Clear and clean up the area.
 - 2) Activate such routine emergency services as the police, firemen, and public-health personnel or military units for rescue and salvage operations.
 - 3) Supply the population with the vital necessities they obtain for themselves in normal times, such as food, housing, and personal welfare needs.
 - 4) Take special measures for medical treatment.

5). Carry out rehabilitation and reconstruction programs.

C. Rehabilitation stage

In regard to disasters, the term "rehabilitation" is taken to mean an action or series of actions designed to rehabilitate or restore a thing to its state before the disaster. Rehabilitation may be temporary or permanent.

D. Reconstruction stage

Reconstruction is to be understood as the series of efforts and activities that must be undertaken to replace the physical and service infrastructure, housing, productive goods, and the various material goods that have been destroyed.

Bank cooperation with members during prevention and emergency stages

The Bank will support the initiatives of member countries designed to reinforce their preparedness for emergencies and their capacity to predict and prevent disasters and to study measures designed to alleviate the effects of disasters on human and economic affairs through the following action:

1. Cooperating with member countries that have been or may be affected by natural disasters in investigating the causes of the catastrophe and analyzing and evaluating the damage, for the purpose of establishing suitable preventive measures against future natural disasters. These preventive measures should in particular cover financing and technical cooperation in regard to projects and works that may help to prevent or reduce the effects of a future natural disaster.
2. Supporting financing and/or technical cooperation to deal with immediate needs due to the emergency that are designed to put people back to work and ensure the continuity of production systems, especially of small and medium agricultural, handicraft, industrial, and service enterprises.
3. Encouraging governments to take account in their development planning of the danger of natural disasters and of any undesirable effects that the execution of the projects may have on the environment, specifying the degrees of risk existing in each area, in order to locate construction at sites affording the greatest safety; also, encouraging them to include earthquake protection measures in plans for infrastructure construction in general.
4. Supporting the creation, organization, and strengthening of civil defense systems by granting financing and/or technical cooperation.
5. Maintaining close relations and coordination with agencies responsible for preventing and dealing with disasters, for the exchange of information and experience that will help to mitigate the effects of natural disasters in member countries.

Technical Cooperation

The Bank will use the resources and mechanisms of technical cooperation available to it to support, insofar as necessary, the realization of the objectives referred to in this policy. In doing so, it will take account of the fundamental need for a rapid, suitable, and effective response to the countries' requests for assistance.

Technical cooperation resources, unless otherwise provided under this policy, will be used as established in the Technical Cooperation Manual, basically for the following purposes:

A. Technical cooperation for immediate needs arising from an emergency:

1. The supplying of experts and workers to evaluate the damage and restore essential public services immediately.
2. The institutional strengthening of the national organizations responsible for these services.

B. Technical cooperation for medium-term needs:

1. Sectoral studies, identification of projects, and preparation of rehabilitation and reconstruction programs.
2. Training to meet new demand for human resources.

C. Technical cooperation for long-term needs:

1. Assistance in preparing for emergencies and predicting disasters, the latter preferably on a multinational scale and in coordination with the international agencies responsible for predicting and preventing natural disasters.

When the nature of the disaster requires the formulation of loan projects through the provision of technical cooperation, the Bank will see that these projects are formulated in accordance with the norms of this policy and other applicable policies.

The President is authorized to approve, on his own authority, technical cooperation operations for the country concerned to the amount authorized in general by the Executive Board for any field of activity covered by the Technical Cooperation Manual and in regard solely to the most immediate needs arising from a natural disaster. The funds will be used to pay fees, travel, per diems, and other amounts payable to consultant firms, specialized organizations, and/or individual experts, and to finance the purchase, carriage, and insurance of equipment, tools, and materials necessary for reaching the goals of the operation. The funds for each operation will be managed by the Bank or by the appropriate authorities in the country concerned, as considered most suitable in each case.