### IV. NEW INTERNATIONAL CO-OPERATION NEEDS

### 1. General considerations

As noted earlier, the floods caused serious material damage to physical and social infrastructure and considerably undermined Nicaragua's production capacity, more intensively affecting those areas in which the country's economic activities are concentrated and, particularly, those which generate most of the foreign exchange and fiscal income.

This disaster came on top of a situation in which the Micaraguan Government was confronting what was in itself an important task of recovery from the damage caused by the 1972 earthquake -which was not completely repaired by the previous administration despite the long time that has elapsed- and from the effects of the 1978-1979 war. In addition, the Government had set itself the task of improving the living conditions of the population and bringing about a more equitable distribution of income, both of which activities required an economic effort and mobilization of the people on a very large scale. Nor can the fact be overlooked that the enormous inherited debt, in spite of having been recently renegotiated on more favourable terms, imposed high expenditure of the country's foreign exchange.

It is an undeniable fact that the international financial community has made a substantial contribution towards the Micaraguan Government's reconstruction efforts by lending and donating a sum of around 1 300 million dollars as from July 1979. That contribution, however, has been insufficient for the country to recover from the damage caused by the two disasters that affected it in the 1970s, and also to confront the many obstacles to its development.

The May 1982 disaster has aggravated the situation that prevailed before that date and will bring many and more serious adverse effects. On the one hand, it will make it necessary to effect unforeseen expenditure to rehabilitate or repair instead of increasing the existing stock of capital, at much higher replacement costs than the original value of the existing resources. On the other hand, the national economy's capacity to finance that expenditure —in terms of both saving and the external sector— will undoubtedly be affected for a period of two or three years.

There is also a sense of urgency in carrying out some rehabilitation and reconstruction works, especially those connected with the reconstruction of access roads and the rehabilitation of agricultural infrastructure, since they must be done in time to ensure the sowing of some crops such as cotton and basic grains, an activity which cannot be prolonged beyond the middle of August.

Notable in the first place, therefore, is the need to provide Micaragua urgently, apart from emergency aid, with significant support for its balance of payments and public sector financing. Only in this way is it possible to avoid a considerable deterioration in the living conditions of the population and a shortage of liquidity which could prevent Nicaragua from meeting its commitments abroad.

Secondly, it is considered necessary that, with the assistance of the international community, Nicaragua should face this new disaster in such a manner as to reduce or eliminate as far as possible any negative effect on the economic and social development effort which the country has been making. In other words, it is imperative that the rehabilitation and reconstruction efforts should be integrated with the development plans in force before the disaster, endeavouring, in essence, not to alter the achievement of the development goals and objectives which the National Reconstruction Government has set itself. This means the international aid for dealing with the damage caused by the disaster should be of an additional character, not substitutive for that originally envisaged in support of its development plans. As a result of the disaster, the Government will not only have the difficult task of obtaining the external resources envisaged in its financial programming in view of the growing shortage of resources, but it will now require more financing for unforeseen needs.

Thirdly, the assistance required for the thres stages following a process of this nature -emergency, rehabilitation and reconstruction- should be determined. This does not mean that a strict chronological order must be observed, since in some cases they could even be dealt with simultaneously or on a complementary basis. By way of example, it should be noted that the aid in terms of foodstuffs will be required until the new harvests are brought in, while the rehabilitation and reconstruction works -already initiated- may well require a longer period, probably not less than 18 months.

Finally, there is no doubt that the efficiency, spped and earnestness with which the Nicaraguan authorities and the popular organizations -at both the national and the department level- have responded to the emergency imposed by the disaster are a guarantee that the proper organizational capacity is aviiable to mobilize and orient an appreciable flow of international assistance with the aim of undertaking the reconstruction and development projects. Such capacity could be strengthened on the basis of external technical co-operation, on which point some guideliness are suggested later in this study.

# 2. Characteristics of the international assistance required

Although it is still too early to estimate the full extent of the international assistance which will be required to repair the damage caused by the floods, the estimates presented earlier in this study indicate a sum of approximately 220 million dollars in direct losses of physical assets alone. Moreover, it seems feasible to indicate some of the characteristics which that assistance could have.

Because of the type of damage caused, which largely affected the country's export capacity, and the balance-of-payments position, in the next 18 months Nicaragua will obviously require additional international financing -both public and private- to prevent the complete breakdown of its external sector. In view of the considerable burden which the country must bear in covering the servicing of the already renegotiated external debt, that volume in addition to the amount of net capital inflows in recent years, would undoubtedly raise very serious problems with respect to Nicaragua's capacity, unless it was granted on very favourable terms as regards maturity, grace period and interest, or as donations.

It seems justifiable, moreover, that taking into account the difficulties which the Government will have to face as a result of the disaster, a system of direct support, flexible as far as local counterpart contributions are concerned, should be designed and put into practice. In other words, it is essential that the new loans, in addition to being granted on highly favourable terms, should cover almost the entire cost of the programmes and projects.

In view of the extreme urgency with which Nicaragua needs increasing financial assistance from abroad to deal with the emergency, rehabilitation and reconstruction, in order to prevent the external sector from reaching a critical position in the immediate future, it seems in order to put forward some suggestions to the international financing agencies.

In the first place and immediately, unutilized resources of some loans already granted might be recriented and those which are in "frozen" could be renewed. Secondly, it would be desirable to grant preferential treatment as consistent with the magnitude of the disaster and the conditions prevailing before it, making the procedures, mechanisms and conditions which are normally applicable in the evaluation and approval of loan requests more flexible, in the same way as some projects were handled after the war. Finally, it would be highly desirable that financing should be provided by programme -not by project- with the purpose of avoiding the delays involved in the formulation and approval of specific projects.

Fortunately, as a result of the reconstruction work after the war, Nicaragua possesses an <u>ad hoc</u> agency to analyse and direct the mobilization and absorption of external resources: the International Reconstruction Fund (FIR).

As regards support for the balance of payments, the country has already made full use of the procedures available in the Central American Integration process (especially the Central American Monetary Stabilization Fund) and it would not seem feasible to conclude agreements within the short term with the International Monetary Fund. Accordingly, that support should come from credit lines, inter-bank deposits of central banks of friendly nations, and official loans from bilateral sources.

Finally, the United Nations Special Programme to provide emergency aid and development assistance, established by the General Assembly in resolution 3202 (S-VI) could be approached, since the disaster at the end of May 1982 clearly fulfils the requirements established for the purpose.

### 3. The specific fields requiring priority international assistance

It is not essential to wait for the completion of a detailed reconstruction plan to be able to indicate the projects, programmes, sectors or geographical areas requiring urgent attention from the Government and the international community. On the basis of the analysis of the damage presented in this document it is possible to identify the areas or sectors which should undoubtedly be given priority. These activities, which are summarized below and are presented in detail in table 20, cover the three aforementioned stages after the disaster, that is, emergency, rehabilitation and reconstruction. It is once again stressed, however, that this classification or subdivision does not necessarily mean any chronological order of execution, and that they should even be projected in the future as part of the Government's economic and social development plans.

Without underrating the damage in other sectors and activities, those which demand preferential attention are agricultural infrastructure and production, the road system, housing, food and health.

### (a) Emergency

The floods affected the crops of basic grains which were about to be harvested, as well as the soil which was ready for sowing, which had led to a shortage of the former and has imposed a considerable delay in the sowing and possible harvests of cereals, especially maize. As a result, food contributions will have to be extended at least until August or September.

Furthermore, it is a matter of urgency to provide more permanent housing in safer places for about 12 000 families which lost their homes and household effects, by strengthening and supporting the programme which the Government has initiated in this respect.

With the purpose of preventing an outbreak of epidemics among the flood victims owing to crowded conditions in the temporary shelters, it is urgently necessary to provide preventive and curative medical services and the medical supplies they require, and to continue using the campaign hospitals which arrived a few days ago. Another urgent matter is to repair and re-establish the drinking water and sanitary disposal systems in some towns of the interior.

In order to ensure that sowings are completed in time it is also a matter of the utmost priority to have fertilizers, seeds and other inputs, and to be able to refinance farmers who lost their crops and land already prepared for sowing.

### (b) Rehabilitation

While recognizing the need for some overlap between the emergency and rehabilitation stages, which must also occur between these two stages and that of reconstruction, it is important to indicate the most urgent rehabilitation activities which should be undertaken.

In view of the urgency imposed by the climatic conditions, it is a pressing necessity to repair the branch roads providing access for inputs and machinery to agricultural areas; to reconstruct the terraces in the land used for cotton-growing; to sow all the basic grains and cotton itself, and to rehabilitate and repair the landing strips required for agricultural pest control. These activities would have to be completed within a very short period in order to ensure that the crops are harvested in time.

It is also necessary to continue the temporary repair of the damage to the road system, filling in the approaches to the bridges, repairing sewers and constructing fords with minimum safety conditions or using the "Bailey"-type structures in the case of bridges which were completely destroyed or their structure seriously affected; this work has already been initiated by the Government with the co-operation of friendly countries. The same action must be taken in the case of the network of secondary roads. For these activities it is necessary to acquire heavy earth-moving machinery to supplement the park available in the country.

Finally, another necessary step is to start the aforementioned campaigns for the prevention of malaria, dengue and yellow fever, before the propagating agents can start having any effects.

## (c) Reconstruction

Taking into account the above-mentioned overlap with rehabilitation activities, it would be necessary to undertake the final reconstruction of the road and agricultural infrastructure, the renewal of banana plantations, the final rehabilitation of eroded land with sediment deposits and river courses which overflowed their banks, and the reconstruction of urban, port and airport infrastructure.

The reconstruction of bridges and sewers which were damaged or destroyed should be undertaken after a review of the criteria for achieving a design more compatible with the hydrometereological situation in the area. The same may be said of rain drainage courses and structures in the cities, and of the correction, removal of obstructions and definitive protection of river courses in the coastal areas.

The road system will also have to be repaired in final form, adequately replacing the surfaces, while the railway track will have to be reconstructed along the lines most compatible with the country's needs.

A start should be made on work designed to protect slopes and land with a relatively pronounced gradient against progressive erosion, by reforesting, constructing soil retention and conservation works and establishing tree or bush-wind break. Permanent rehabilitation tasks would also be necessary on the land upon which large volumes of sediment were deposited, by removing debris, stones and tree-trunks. Fences and other minor agricultural and stock-breeding structures should also be rebuilt.

Moreover, it will be essential to strengthen and extend the coastal protection works (breakwaters) in the port of Corinto, so as to prevent the sea from advancing inland.

The health and education infrastructure, together with educational materials and the inventory of medical supplies should also be replaced on a permanent basis, taking into account the location of the new settlements.

Lastly, and equally important, would be the establishment of a system of surface metereological stations with height measurement facilities -including radar and radiosonde stations-, the re-establishment of hydrometric stations which were carried away by the currents, and specialized training in forecasting for Nicaraguan personnel so that there will be an efficient system available to foresee metereological and hydrological phenomena under the actual weather conditions and thus be able to lessen the damage doen by future disasters.

# 4. International technical co-operation

The financial co-operation projects and programmes which have just been outlined should be supplemented by technical assistance additional to that which international organizations and friendly governments are currently providing. This assistance should be basically oriented towards supporting the Government for National Reconstruction in dealing with economic areas and sectors defined as of priority importance, and particularly in the formulation of specific rehabilitation, reconstruction and development programmes and projects in order to facilitate and accelerate the granting of external financing. This co-operation could also be oriented towards the inclusion of the disaster requirements in national development plans.

Another point which might be defined is technical assistance in the formulation of plans for the reconstruction of road and railway infrastructure and drainage, and in a thorough study of the hydrological systems of rivers and the establishment of an efficient system of forecasting floods.

There is also a possibility of providing assistance in formulating plans for the recovery of debris-strewn land, the protection of eroded land, erosion control on the highlands and reforestation; in short, for control of the soil and forests which were so seriously affected. Co-operation in analysing and counteracting the effects on marine fauna caused by the sediment in estuaries might also be required.

Finally, there might be a need for advisory assistance in the planning of human settlements, with the aim of relocating the flood victims in accordance with the best possible criteria.

To sum up, after the emergency phase in which the co-operation of governments, UNDRO, PMA, the International Red Cross and PAHO is crucial for the stages of rehabilitation and reconstruction, the Government of Nicaragua should urgently devote itself to the task of defining as precisely as possible the expected priorities and periods for undertaking and completing activities in the various fields. Obviously, the sounder basis and rationality with which action priorities converted into projects and preliminary projects are presented, the greater will be the possibilities that international, regional and sub-regional financing. institutions, as well as friendly governments, will make resources available in the volume and of the nature required. Perhaps one of the first steps to take immediately would be to form technical groups, with the collaboration of international assistance that may be deemed advisable, in order to prepare the necessary draft projects in at least the following fields: road infrastructure, bridges, railways, land management and protection, housing and human settlements. Once the Government has stated its needs in terms of technical assistance for this phase, UNDP could be responsible for locating and mobilizing the experts in the various specialties requested.

Table 20

SUGGESTIONS CINCERNING POSSIBILITIES IN CONNEXION WITH INTERNATIONAL ASSISTANCE IO NICARAGUA IN LEALING WITH THE DAMAGE CAUSED BY THE FLOODS

Stage and sector	Financial co-operation Description of. Programme or project of co-op	operation Possible sources of co-operation	Technical co-operation Description of programme or project	ration Possible sources of co-operation
(a) <u>Emergency stage</u> Social sectors	Supply of 31 550 tons of Governmentalize to meet focu requirementPMA/FAC up to September	Governments LPMA/FAC UNICEF		
	Supply or conation of construction raterials and tools for 12 000 dwellings	Governments IDB BCIE UAS Private organization	Assistance in urban planning in the smaller towns	Governments United Nations
	Emergency health assistance, including personnel, medical supplies and campaign hospitals	Governments Red Cross PAHO/WHO		
	Repair of drinking water and sanitary disposal systems	Governments IBRD	Assistance in the recrientation of existing loans	PAHC/WHO
Agricultural sector	Furchase of 400 cons of maize seed, 20 tons of sesame seed and 20 tons of fertilizer	Governments PMA/FAO		
Public sector	Refinancing of loans to farmers who lost props or land prepared for sowing	ACIE IJB IBRD Governments		

			Governments WMO UNDP	BCIE Governments United Nations UNDP			FAO UNIDO United Nations UNDP
			Hydrological studies to determine flows in the design of bridges and sewers	Technical and economic study to determine the best method of reconstructing the railway system, and analysis of the rate structure			Assistance in the formulation of development programmes and projects
The same headings	Governments BCIE IDB IBRD	Governments BCIE IDB IBRD	Governments BCIE	Governments	Governments BCIE	Central banks CMCA Governments	Governments
	Acquisition of heavy equipment for the removal of sediment and the reconstruction of roads and river courses	Acquisition of "Bailey"- type bridges for the rehabilitation of the road system	Temporary repair of highways, roads, bridges and airstrips, 32 % to restore minimum access throughout the region affected	Establishment of a factory of pre-stressed concrete for the construction of bridges	Acquisition of agricultural machinery and implements for the repair of terraces and repair of land for sowing	Loans to Central Bank of Nicaragua in runsons of the balance of payments	Channelling of extraordinary resources to the public sector by special lines of credit and budgetary support
!	(b) Rehabilitation Infrastructure sector				Agricultural sector	Fublic sector	

# The same headings

Public sector (Concluded)			Inclusion of programmes of rehabilitation and reconstruction of damage in	CEPAL/ILPES UNDP TCD
Health sector	Campaign for the prevention of malaria dengue, yellow fever, etc.	Governmen ts PAHO/WHO	the development plan Assistance in the formulation of prevention campaigns	Governments PAHC/WHO
Rousing sector	Financing of housing construction programme	acie iba ibro Governments		
(c) Reconstruction Infrastructre sector	road and rapair to the road and railway systems, including bridges, sewers and rain drainage in urban areas kepair and protection of slopes in river courses which were eroded or obstructed Repair and extension of breakwaters in Corinto	BCIE IDB IBRD Governments BCIE IDB ISRD FIDA BCIE		
		IBRD Governments		
	Establishment of meteorological and hydrological system for forecasting floods and hurricanes	Governments WMO UNDP		
Agricultural sector	Re-establishment and improvement of the national stock of cattle	IDB IBRD FAO		

# Table 20 (Concluded)

		The same headings		
Agricultural sector (cont.)	Programme for the control of erosion and reforestation of the highlands	FIDA	Design of the relevant programme	FAO Governments
	Recovery of land covered by obstructions in low-lying areas	IDB		
			Research on the effects of sedimentation in estuaries and coastal lakes for the protection of marine fauna, and the changes which occurred in Lake Managua	FAO UNDP UNEF
			Study on changes in the general environment as a result of the disaster	UNDF UNEF
Public sector	Establishment of a special fund to cover immediate needs and a minimum deposit of emergency materials in case of future disasters, preferably at the regional level	BCIE Red Cross Governments	Inclusion of an analysis of vulnerability to disaster in all development projects	UNDP UNDRO CEPAL/ILPES

Identification of areas

Susceptible to various types
of disasters, and establishment
of anti-disasters, and establishment
of anti-disasters, and establishment
onstruction wiles

UNESCO
CEPAL/ILPES
Inclusion of projects and
programmes for the prevention
and forecasting of natural
development plan

CEPAL/ILPES
disasters in the national