

Chapter X

SUMMARY AND PROPOSALS

Successful negotiations require clear objectives; a thorough knowledge of the means available and the relation between those means and the objectives; effective institutions, and strategies in keeping with the real conditions of the region.

1. The United Nations Conference on Environment and Development

The process of changing production patterns which has taken place over the last five decades has been accompanied by adverse effects on the environment in both the developed and developing countries. The increase in production, its forms of concentration and location, and the assumption that environmental damage is a perfectly acceptable cost which does not outweigh the advantages of structural change, have caused the multiplication and intensification of these negative impacts with time. National and regional experience, however, indicates that these disturbances in the environment are nearing intolerable social and economic limits.

When it convened the United Nations Conference on Environment and Development, through its resolution 44/228, the General Assembly expressed the concern of Governments over "the continuing deterioration of the state of the environment and the serious degradation of the global life-support systems, as well as ... trends that, if allowed to continue, could disrupt the global ecological balance". It also noted in the resolution that "the major cause of the continuing deterioration of the global environment is the unsustainable pattern of production and

consumption, particularly in industrialized countries".

As changes in production patterns must necessarily continue, however, especially in the developing countries, ways must be sought to ensure that such changes lead to sustainable development. In the resolution in question, the Governments also concurred that "the protection and enhancement of the environment are major issues that affect the well-being of peoples and economic development throughout the world" and decided that the Conference should "elaborate strategies and measures to halt and reverse the effect of environmental degradation in the context of strengthened national and international efforts to promote sustainable and environmentally sound development in all countries".

It is within this general context that the countries of Latin America and the Caribbean must set about the task of defining, from the region's own particular viewpoint, what results it expects from the Conference.

The objectives of the Latin American and Caribbean Governments at this Conference will include both preventing the spread and diversification of existing or foreseeable environmental damage in the region and helping to organize an integrated world society so that

differences in the quality of the environment do not represent a new structural obstacle to trade, communications and even relations between countries.

The view of Latin American and Caribbean development offered by the ECLAC secretariat in its proposals for *Changing production patterns with social equity* holds that these changes "must be compatible with conservation of the physical environment". In the earlier chapters of the present document, the many and complex links between development and environment were explored in greater detail. In this respect, it is to be hoped that Latin America and the Caribbean can make a conceptual contribution to the Conference by making clear the full significance of the assertion in resolution 44/228 that "environmental protection in developing countries must ... be viewed as an integral part of the development process and cannot be considered in isolation from it".

The Conference also offers a promising forum for the deployment of major co-operative efforts to resolve common problems in the various spheres of international economic co-operation which are currently being discussed. For example, because of the diversity of their natural capital, Latin America and the Caribbean have considerable assets to offer in helping to mitigate or solve some of the most important global environmental problems, such as climatic change. The developed countries, for their part, possess the financial capital and technology to make it possible for the Latin American and the Caribbean countries to make full use of that natural heritage.

Finally, the countries of the region can reasonably aspire to the attainment of concrete results such as the establishment of standards and regulations on such varied aspects as access to environmentally sound technology; the mobilization of resources for financing sustainable development; training and education to further the protection and improvement of the environment; the protection of natural resources and efforts to maintain biodiversity; a more transparent and open international trade system which avoids discrimination because of, for example, environmental considerations; and the

adoption or strengthening of arrangements for the monitoring, appraisal and prevention of threats to the environment. Some basic proposals will be put forward below for seeking agreements that will make it possible to progress towards the establishment of such standards and regulations.

2. Development and environment from the regional perspective

The links between development and the environment are expressed through each of the dimensions that must be taken into account when designing and executing development policies (i.e., the technical, economic, institutional, social and political dimensions). For this reason it is vital to view the sustainability of development within a broad context that goes beyond concern only with natural capital. Thus, achieving sustainable development must necessarily involve *a dynamic equilibrium in the use of all the forms of capital that comprise the development effort*; that is to say, not only human, natural, physical, and financial capital, but also institutional and cultural resources or capital.

Earlier chapters of this document emphasized various systemic aspects, such as economic policy; the creation, transfer and adoption of new technologies; the relation between poverty and the environment; the links between natural resources and the environment; the need to reform institutions; and the terms of financing. These issues, together with those of a global nature, affect all sectors of the population.

It must be stressed that economic policies affect the equilibrium in the use of all forms of capital and therefore cannot be considered as neutral with respect to the sustainability of development. The effects of microeconomic policies are obvious, but those of macroeconomic policies are not so immediately evident, yet they are of great importance since they directly or indirectly affect the total stock and exploitable flows of resources. They also affect the spatial aspects of development, the lead time of investments, time preferences and attitudes towards risks or uncertainties. Structural adjustment programmes have rarely taken account of environmental aspects, and

stabilization policies place their stress on the short term.

Although project appraisal methods which take account of their environmental effects are already available, such methods are little used as yet, and furthermore there is a need to incorporate such projects into broader programmes which make it possible to view all their effects. This calls for a higher degree of co-ordination of public policy and better links between macro and microeconomic policies.

Economic policies aimed at sustainable development have as their ultimate objective the improvement of the living standards of the population. People are at once a resource for development and its fundamental concern. Consequently, population-related issues must be analysed from both points of view. As a resource, the population continues to grow rapidly in Latin America, although a process of transition towards lower population growth rates is to be observed. In spite of this process, it is not surprising that problems persist that have more to do with spatial distribution, institutional conditions and production technology than with the growth rate of the population. The process of demographic transition is closely linked with development: if the latter is stimulated, the declines in fertility and mortality rates whose effect is to reduce population growth will occur more quickly. This is why population policy, in its broadest sense, should be an integral part of an environmentally sustainable development policy.

The management, use and distribution of natural resources have not reached an advanced enough stage to permit the eradication of poverty, which is perhaps the most urgent aspect when considering human beings as the main subject of development. Although there is a wide variety of situations from one country to another, altogether poverty affects over 180 million people in the region. The environment and poverty influence each other reciprocally: the poor live in degraded environments and contribute to their further deterioration, while the degraded environment makes it more difficult to eradicate poverty. Although it is difficult for the poor to accumulate capital in its traditional forms, there have been successful examples of accumulation of natural

capital as a way of beginning to break the vicious circle of poverty.

Technology can make a decisive contribution to the eradication of poverty. Technologies that facilitate the accumulation of natural capital; "clean" technologies that ease the access of the region's products to international markets; efficient technologies which improve its international competitiveness, and non-polluting technologies that can be used in small-scale activities, especially adapted to medium-sized and small enterprises, which are usually labour intensive, are indispensable in order to improve the living standards of the population of Latin America. The building of consensus between the governments and private sectors of the countries is particularly important in this respect.

The need for consensus building and community participation at the local and national levels makes it desirable to review the existing institutional framework with a view to adapting it to new and changing requirements. This adaptation refers fundamentally to the process of decision-making, which includes the structures of incentives and disincentives, the organization of development, the management of the economy, the role of the State and of private agents, and community participation. There are no miracle recipes or solutions for this adaptation, and experience shows that the modification of institutions for sustainable development is a lengthy process.

In the international field, progress towards the establishment of appropriate institutions continues, and various relevant conventions and agreements already exist, together with others of a regional nature. Both international and regional instruments bear witness to the growing level of awareness on environmental matters, but there is still a long way to go before achieving a truly effective set of instruments in the field of international co-operation on environmental issues. This could be a further basis for international economic co-operation in the future.

Financing sustainable development presents difficult problems, both as regards the amounts of money involved and the formulas and instruments needed for it. New mechanisms have been created, such as "debt-for-nature swaps", but they

have not yet achieved the necessary significance and, in certain circumstances, could even prove to be counterproductive. More financing is required, both domestic and external. In the case of the latter, it is particularly important to take into account its additionality with respect to the currently available resources. It is also necessary for investment projects to be incorporated into broader programmes which take account of all their effects.

3. The commitments needed

The purposes set forth above will be achieved to the extent that society as a whole determines to do so: individuals, communities, nations, regions and the whole international community all have their parts to play in achieving this. Thus, it is essential to develop an awareness in individuals and communities of the need to make development environmentally sustainable, especially with regard to the impacts of various development policies on natural resources and the environment. This process of gradual raising of personal and collective awareness will be expressed through concrete mechanisms of popular participation and consensus. This is where the social institutions, viewed as decision-making systems, assume great importance: it is their task to give concrete expression to the incentive structure, the organizational aspects, the bases for the management of resources, the assignment of roles in the economic and social sphere and the degree of commitment to policies and strategies.

At the *national level*, there are a number of activities which are of priority importance:

Formulating a national policy on education and communication which raises the level of public awareness with regard to problems of environmental sustainability. Strengthening democratic institutions and machinery for participation, management and regulation. Within this context, the economic institutions are of priority importance, since they represent a synergic source of change in production patterns, equity and sustainability. Special attention should be given to organized community

participation in the evaluation and local management of investment projects.

Establishing sound scientific and technological research systems; systems of information, dissemination, monitoring and evaluation at all levels. Because of the complexity of ecological systems, a proper understanding of them is a necessary condition for taking decisions, negotiating and assigning resources. Thus, those who take decisions on environmental issues must have a sound basis for these decisions, i.e., they must have all the necessary information at hand.

Linking the processes of economic and ecological planning. An important tool for this is territorial and environmental administration.

Formulating and executing national, regional and local investment programmes. Environmental sustainability programmes start off at a disadvantage compared with traditional investment programmes (highways, irrigation works, etc.) Measures must be taken to prevent the financial resources available for environmental programmes from being blocked by the lack of suitable institutional capacity.

At the *regional level*, it is essential to link up the national strategies with those at the regional and world levels. Such links are still weak, so it is important to strengthen regional systems or create them where they do not exist. These systems do not call for great institutional infrastructures: the idea is rather to take full advantage and improve the structure of the existing regional bodies. This in turn would strengthen the position of the countries of the region in the negotiations and changes called for by the sustainability of development. The various subregional agreements exemplified by the Central American Commission on Environment and Development, the Special Commission on the Environment of the Amazon Region and the Caribbean Community's Ministerial Conference on the Environment could appraise their potential as regards natural resource management and environmental sustainability, seeking appropriate technical assistance in order to make them more effective in this respect.

At the *international level*, the United Nations Conference on Environment and Development offers not only an opportunity to work out strategies and measures to halt and reverse the effects of environmental degradation at the local, national and world or global levels, but also the chance to progress towards the treatment of the international economic co-operation agenda in greater depth and detail: the issue of protection of the environment cannot be considered in isolation, but must be seen in a broad economic, social, political and institutional context.

4. Criteria and principles

4.1 *On sustainable development*

The focus of any sustainable development strategy must be the people. Natural resources and the environment are merely means which, in conjunction with soundly based democratic and participatory institutions, will help to achieve the objectives of development. There are all too many examples of strategies which have failed because they did not take account of this simple truth. There have been cases where natural or institutional capital were defined as the subjects of a development strategy, instead of the people and communities (the human capital) which not only provide the basis of support for these strategies but are in fact their be-all and end-all. Approaches like this cannot lead to sustainable development.

Other guiding criteria include the following:

There must be explicit recognition of the social, economic and ecological diversity and uniqueness of each country and its regions.

The viability of strategies is determined not only by their inherent nature, but also by the management capacity displayed in their execution.

The effectiveness of management instruments (planning, economic, legal and financial regulations) will depend on how far they are backed up by a suitable management system.

Management systems affect the supply and demand for natural resources and the

environment. In order to manage supply, a high degree of technical and cultural knowledge is required, while in the case of demand there must be a thorough knowledge of the political and economic aspects involved.

The provision of support and guidance to the formal and informal users of resources facilitates their participation in the formulation and management of environmental strategies and policies.

The State must give support to the lower-income sectors, since in rural areas they occupy spaces which are relatively distant, ecologically fragile, topographically rugged, and of great biogenetic diversity, while in urban areas they occupy high-risk spaces largely devoid of health, education and security services.

Managing natural resources involves a wide range of actions covering large geographical areas. In these actions, high priority should be given to decentralization, with the aim of promoting the activities carried out in support of the State by non-governmental organizations and other institutions and furthering the local management capacity so necessary for giving permanence to the actions in question.

The private and public institutions involved in this process must be linked with each other in a visible and explicit manner, so that the execution of national policies will receive the support of the entire community and there will be no confusion or conflict between the actions of the various agents.

With regard to the latter point, it is necessary to strengthen the social and political institutions, and structures of public participation and consensus-building, which will require, *inter alia*:

Increased knowledge of the existing resources (potential, rates of utilization, levels of investment);

Establishment of monitoring and evaluation capacity which makes it possible to make sound decisions about what policies should be implemented to speed up the attainment of sustainable development;

Definition of programmes to strengthen and develop institutions;

Increased capacity for the execution of development programmes, including their financial and technical assistance dimensions;

Adoption of organizational measures to promote basic and applied research and protection of the natural and cultural heritage;

Strengthening of the basis of political systems within a democratic and participatory context.

The strategies must further integration at both the national and regional levels. There are various dimensions which can be taken into account with regard to relations between countries, including in particular the following:

Definition of environmental standards and regulations concerning regional problems such as health, marine pollution, management of international river basins and the transport and disposal of hazardous wastes;

Establishment of rates of utilization of shared national resources;

Promotion of regional technical co-operation, including the transfer of technology, exchange of information and scientific research, and its co-ordination in the region;

Access to existing experience of economic policies, institutional reforms and public and private investment;

Establishment of an agenda for the formulation of action programmes and aspects that go beyond national frontiers (health, management of river basins, protection of flora and fauna);

Definition of basic measures for the protection of the biodiversity of the region and the preservation of the natural and cultural heritage.

4.2 Sustainable development and the 1992 United Nations Conference

There is an obvious need to formulate a policy for management of natural resources and the environment which incorporates the human-economic, political and social-dimension and also serves an integrative purpose within each sovereign country in matters concerning

sustainability. If such a national policy does not exist, management of the economy in general and the bases for bilateral and multilateral negotiation will be seriously weakened.

Among these bases, one of the most important is that *all* governments should play a full part in the preparatory process for the United Nations Conference. This is because at present there are various forums for negotiation engaged in the formulation of international legal instruments which are not of a universal nature; in some cases, participation in these forums has been on the basis of invitation in a personal capacity. It is essential, especially in the stage of formal negotiations, to avoid this replacement of sovereign expressions of will by the personal opinions of experts.

Another concept which should guide the activities of the governments of the region is that of the need to recognize that there is a *congruous link* between liability for creating environmental problems and responsibility for helping to solve them. This link has been expressed in the phrase "the polluter pays".¹

It should be noted, however, that despite its usefulness as a general guideline, this concept raises some theoretical and methodological difficulties. It could be applied to environmental problems generated in the future, whether they are the responsibility of a country which contributes to global or cross-border environmental problems or whether they are caused by an enterprise which generates pollution affecting the inhabitants of a particular community. However, the concept is more difficult to apply to the total accumulation of environmental problems that have built up over the years.²

Finally, it should be explicitly recognized that world or global environmental problems are simply the accumulation of local problems. In this respect, insofar as each country adopts policies aimed at achieving its own sustainable development it will not only be achieving its own objectives but also contributing to the solution of world problems. This is why it has been insistently stressed throughout this document that

it is impossible to separate global environmental problems from local and national ones.

5. Some suggestions for formulating a regional position

Local, national and world-wide environmental problems are interdependent and closely linked, although they may call for specific solutions in keeping with the spatial magnitude and the nature of the degradation caused. Moreover, the environmental problems that exist in the developing countries are not due solely to poverty but are due in the main to certain development models which have generally been adopted without the necessary critical appraisal, either by those countries themselves or by the industrial nations. It must also be recognized that the economic development process modifies the environment and interacts with natural capital. The management of the latter is an integral part of the development process itself.

From the preceding chapters, together with the guidelines set forth in the Action Plan for the Environment in Latin America and the Caribbean³ and in the report prepared by the Latin American and Caribbean Commission on Development and Environment,⁴ it is possible to draw some overall guidelines regarding the position of the countries of the region in the preparatory activities for the 1992 United Nations Conference as well as to prepare a Latin American and Caribbean agenda. The cultural, economic and ecological diversity and uniqueness of each of the countries of the region make it advisable to seek such broad guidelines with a view to achieving success in the negotiations, rather than trying to provide specific proposals of general applicability.

This will not try to be an exhaustive list. It merely highlights those issues of special interest for Latin America and the Caribbean which are nevertheless closely linked with the General Assembly's concern over world problems of development and the environment, a matter that was dealt with in chapter IX.

5.1 A regional platform for co-operation in the field of the development and transfer of environmental technology

In the process of changing production patterns on which the region has embarked, there is a danger of the reproduction of localized situations of severe environmental deterioration similar to those registered in developed countries. Such situations may also contribute to the disturbance of world ecological balances in the future.

Technology plays a decisive role in the achievement of environmental sustainability, so that it is necessary to further the adoption of measures that will give access to environmentally sound or safe technologies. At the same time, it will be necessary to strengthen the capacity for scientific research and for the consequent technological development.

In order to secure these objectives it is necessary:

- a) To provide support for the strengthening of local, national and regional capacity to develop environmentally sound technologies, which involves:
 - collaboration with local scientific research and development programmes having these aims;⁵
 - measures to enhance the capacity to train professionals and scientists in the appropriate specialties;
 - the installation of laboratories for research and support to programmes for the training of technicians in the use of measurement and analysis equipment;
 - assistance in the establishment of pilot plants and centres for the demonstration of environmentally safe technologies
- b) To promote, in conjunction with suitable local bodies: i) the execution of global and sectoral research projects designed to identify clearly the commercial and institutional obstacles standing in the way of access to environmentally sound technologies and their transfer and ii) the exploration of mechanisms and forms of intellectual property rights which ensure unhindered access to these technologies.

- c) To explore ways of mobilizing and applying additional financial resources for the transfer of environmentally sound technologies.
- d) To promote the dissemination of information on environmentally safe or sound technologies to small and medium-sized businesses in the developing countries, for which purpose technical assistance should be given for the establishment at the local and international level of mechanisms to enable potential users to gain access to the specialized information centres operating in the developed countries and in international organizations, such as the United Nations Environment Programme and the International Environmental Bureau.
- e) To create favourable conditions for the participation of firms from developing countries in industrial fairs specializing in technologies that are environmentally safe and protect the environment, and to promote the holding of such exhibitions in developing countries.
- f) To provide support for the formulation of pilot sustainable development projects and programmes in the various fields of production and to assist in the establishment of methods that permit the evaluation of the resulting benefits in situations where effects of a local and world character are involved at the same time
- g) To contribute to the organization of activities which stimulate local demand for environmentally sound technologies, such as, for example, the exchange of experience on trading rights to emit pollutants and the use of price mechanisms and economic incentives suitable to local conditions.
- h) To explore the possibilities and scope for harmonizing environmental standards at the regional and international levels.

5.2 *Financing sustainable development*

The countries of Latin America and the Caribbean can only tackle the challenge of sustainable development through a net increase in

the financial resources assigned for that purpose. The assignment and use of these financial resources depend on the specific criteria which are given below:

- a) It is necessary to increase the financial resources. It would be quite unacceptable to the countries of the region if the external financing were provided through the "reallocation" of credits destined for economic development. Unless the external financing of sustainable development is an additional financing item, the recipient nation will suffer a net deterioration in its position.
- b) The need to finance sustainable development must not be made an excuse for the imposition of new forms of conditionality. This is particular important in the areas connected with structural adjustments, proposals for institutional reforms, and the design of national investment programmes. If sustainable development is only attained at the cost of the application of exogenous conditionalities, there will be a net loss in the effectiveness and degree of execution of development programmes.
- c) Projects directly linked with sustainable development should enjoy favourable financing terms. In particular, there are grounds here for the granting of soft credits, most of which, moreover, should not be repayable. The management of these funds could be based on an agreement on objectives, monitored through national monitoring and evaluation systems.
- d) In addition to the national programmes already referred to in this document, consideration could be given to the creation of a *regional fund*. The purpose of this fund would be eliminate the gap between each nation's traditional sources of financing and international sources such as the Global Environment Fund. This regional fund could be managed by regional development bodies.

The environment projects eligible for financing should include at least the following four categories:

The first group would consist of *projects directly related with changes in production patterns, poverty and the environment*. These would include all the activities needed to ensure a substantial improvement in the aspects of natural resources and the environment directly linked with that sector. They would include projects on production, technological change, resource management and the improvement of social welfare in general.

The second group would consist of *environmental adjustment projects*. These are not always exclusively of an environmental nature, but involve changes in productive and social activities which are expected to bring direct benefits for the environment, such as changes in production patterns and the transfer and adoption of technology.

The third group consists of *projects for the conservation and improvement* of specific areas (national parks, flora and fauna reserves), specific natural resources, or biodiversity. These projects would also involve the reduction of contamination in general, measures to check the rate of depletion, and action to promote the recovery of natural resources or the environment.

Finally, the fourth group is made up of *national programmes for human resource development, institutional change and preservation of cultural patterns*, which form the basis for the effective and sustainable execution of the projects in the areas already mentioned. Such programmes include education, technical training, public sector reforms, research and dissemination of information, etc. All these aspects are directly linked with questions of the management and organization of sustainable development.

5.3 Monitoring, evaluation and prevention of threats to the environment

It is necessary to set up a broad and open world-wide system of environmental monitoring and supervision, and carry out a general overhaul of the legal and institutional regulations in this field. From the point of view of Latin America and the Caribbean, the matters which should be subject to this system include in particular:

- a) movement of materials and wastes, especially of a toxic and hazardous nature;
- b) relocation of industrial activities, especially those which are the most highly polluting;
- c) accidents which can cause serious environmental damage, such as those in connection with the production and transport of hydrocarbons, atomic energy production, etc.;
- d) the levels of generation of pollutants, by countries and by sectors of activity, especially in the case of those which have a direct influence in world problems (greenhouse effect, depletion of the ozone layer, marine pollution, loss of biodiversity);
- e) recurrent or non-recurrent natural disasters due to the faulty location of some human activities (urban, industrial, mining and agricultural activities) which can directly or indirectly cause the loss of human life or irreparable damage to the environment; and, finally,
- f) the environmental policies and standards which are already being applied in the various countries.

If backed up by a suitable system of financing and technical assistance, the countries of the region could promote the establishment of the national and regional components of such a system, taking due account of some requirements with regard to its establishment and operation, namely:

- It must provide for the easy and guaranteed access of any country, regardless of whether the latter is directly involved or not in the various aspects dealt with by the system.
- Its data bases must be homogeneous, so as to permit the consolidation of data and the compatibility of evaluation methods for all countries.
- It must allow the countries to gain timely and efficient access to the information needed to set in motion early warning and preventive action in respect of possible hazards, as well as enabling them to receive the benefit of such compensation schemes as may be established.

5.4 Human resource development

Promotion of human resource development is one of the objectives set forth in General Assembly resolution 44/228. For the region, this objective has been formulated in a way which recognizes that changing production patterns and sustainable development call for more than merely overcoming poverty: they also call for financial resources and for intensive training of human resources not only at the higher level but also at the basic, middle and technical levels. In this respect, priority must be given to the training of middle-level professionals. The essential elements for the region in this respect are the following:

- a) Training in connection with operational aspects of the environmental management practiced by the social, economic and political agents in the public and private sectors;
- b) Incorporation of the environmental dimension in the training of technicians and professionals;
- c) Theoretical and practical technological training;
- d) Training of middle-level human resources through intermediate technical courses;
- e) Education of the population in general regarding environmental problems.

Horizontal co-operation and the strengthening of the many programmes and activities which have been carried out in this respect in the region form a strategic element of the highest importance which must be given full support. In this respect, it is also extremely important to increase the technical and financial assistance received by the region from abroad.

5.5 Transboundary movement of hazardous wastes

With regard to the specific problem of the transboundary movement of hazardous wastes, the 1989 Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal needs to be supplemented with regional agreements. These should include legal instruments covering the needs of each region,

monitoring mechanisms, as already mentioned in previous pages, and systems of co-operation and co-ordination for the exchange of the relevant data; mechanisms and systems for the safe repatriation of materials which are hazardous, obsolete or banned in their countries of origin, and finally, promotion of co-operation and technical assistance to assist in the solution of urgent problems. In this regard, the mandate given to the regional economic commissions by General Assembly resolution 44/228 deserves special attention.

5.6 International trade and the environment

The countries of the region are interested in carrying out an ongoing monitoring of the negotiations and progress made in the field of international trade and the environment. This follow-up should be supplemented by region-wide national and sectoral studies which permit the identification in detail of potential changes in the current comparative advantages and which place special emphasis on those aspects where unacceptable environmental conditionalities may be imposed. The main objective of these studies is to evaluate the trading situation of the region and its possible future evolution in the light of the foreseeable changes in international trade deriving from environmental factors or considerations. Furthermore, these matters will be closely linked with the evolution of the debates and negotiations on development and the environment in international forums.

Within the context of the studies in question, the countries of the region—either as a whole, or assembled in subregional groupings—must define their trade strategies at the intraregional and extraregional levels. Some salient elements in these strategies are:

- a) Significantly increasing the added value given to commodities in regional exports, in line with the trends of the world economy, so as to achieve at the same time better use of the opportunities available on world markets and relief of the pressures on natural resources in order to reduce their degradation.

- b) Ensuring that trade within the region and between the region and the rest of the world does not include goods which are banned in their countries of origin for environmental reasons.
- c) Establishing the principle that environmental problems cannot serve as a pretext for creating unjustified trade barriers
- d) Establishing a programme for the gradual reduction of dependence on outside technology for cleaner production processes in agriculture, industry and services and technologies for the control of noxious wastes.
- e) Incorporating within established trade circuits a set of goods and services which are environmentally quite abundant in the region but which currently circulate outside those circuits, with the corresponding adverse effects on the countries in question.

5.7 Information and technical assistance

The regional position on the subject of technical co-operation should take as its fundamental criterion the need to improve and expand the basic environmental information systems of each and every one of the countries. Horizontal and international technical assistance must be used in order to transfer information from the countries with the greatest experience and knowledge of the various aspects of environmental management to the countries with the greatest needs in this respect.

Many specific questions connected with this topic are examined in this chapter in connection with other aspects. The aim is to continue gaining a more complete knowledge of the resources which exist in the region in terms of their potential, rates of utilization and levels of investment required for their maintenance, while at the same time improving the institutional and organizational bases and the information systems for scientific and technological research on these matters.

5.8 Biodiversity

Genetic diversity, considered as part of overall biodiversity, is a resource which is abundant in

the region but scarce in the world as a whole. While it is quite true that genetic diversity is currently seen as a gift which is essential for the survival of the planet, this does not mean that it is a public-domain good available for everyone to exploit as he sees fit. Biodiversity, as an economically valuable ecological resource, constitutes a "tradable good" which belongs to the countries that possess it. In view of this, the following are some of the main elements which should form part of a regional strategy to analyse the problem of biodiversity and its possible loss:

- a) The countries of the region will make a significant effort to protect and conserve the biodiversity existing in their ecosystems, since they are well aware that this constitutes an important factor for the sustainable development of each country and of mankind as a whole. This effort will be reflected in various actions, such as the evaluation and reformulation of the regional system of protected areas, in order that this system may take proper account of the concept of protection of biodiversity
- b) This protection and conservation effort will call for a substantial amount of financial, human and physical resources. Once the areas to be protected have been precisely defined and the resources needed for the execution of the programmes have been determined, efforts will be made to secure the support and collaboration of the more developed nations through the mechanisms mentioned in General Assembly resolution 44/228.
- c) In international forums, the region must do everything it can to further the adoption of new legal instruments aimed at the protection of the genetic heritage and suitable regulation of the "trade" in it. Particular attention should be paid in this respect to the links between this trade and the access that the region can have to technologies based on bioengineering and genetic engineering.

5.9 Oceans and seas

With regard to the oceans and seas, the concern expressed in foregoing chapters is reflected in the

action proposals already adopted in some subregions, such as the South-East Pacific, which could satisfy the concerns of the entire region, namely:

- a) Incorporating, within the specific actions undertaken by the region to maintain the biodiversity of the planet, explicit attention to the long-term economic and social consequences of those measures;
- b) Developing strengthened scientific and financial capabilities to organize and conduct research and analysis on the dynamics of marine resources and their interactions with other factors;
- c) Promoting the adoption of approaches providing for the integrated management of coastal and marine areas and resources;
- d) Applying the "precautionary" principle and "clean production" approach in order to prevent or minimize the generation, transport and disposal of toxic wastes;
- e) Urging the international community to create co-operation machinery for the conservation and optimum utilization of living marine resources which come within the areas of sovereignty and jurisdiction of two or more coastal States within the area of sovereignty and jurisdiction of one country or in the open sea, and, finally,
- f) Stressing the need for a global agreement on the protection of marine resources from land-based sources of pollution.

5.10 The legislative and institutional order

To the extent that there is an improvement in the current economic conditions, the countries of the region will be able to strengthen their capacity for environmental planning and management so as to ensure the effective execution of the programmes and projects for environmental protection, rehabilitation and improvement prepared for this purpose. In view of the enormous diversity of institutional arrangements observed in the region, however, this also involves the need to make thoroughgoing reforms in some cases, minor rectifications in others, and the strengthening of many aspects in practically all cases.

Among the institutional measures which are suggested as criteria for a regional position, special mention may be made of the following:

- a) Formulation or improvement of environmental legislation, regulations and standards and rules for the management of natural resources in each country. It may be noted that programmes of this type are under way in practically all the countries of the region;
- b) Establishment or strengthening of flexible and highly operational systems of environmental information aimed particularly at ensuring that decisions on these matters are based on a full knowledge of the facts;
- c) Establishment or strengthening of stable machinery for participation by the population and civil organizations in the environmental management of each country;
- d) Training of human resources engaged in activities directly or indirectly connected with environmental matters, in respect of issues relating to environmental management at the local, regional, state and national levels;
- e) Improvement of national systems of co-ordination and co-operation among the different State, para-State and private institutions and bodies whose activities have a significant impact on the environment;
- f) Strengthening of the institutions and instruments for regional horizontal co-operation on institutional matters.

6. Preparatory activities for the United Nations Conference

The Governments of Latin America and the Caribbean are engaged in a task of changing production patterns with social equity in which they must incorporate environmental variables in order to ensure the sustainability of development. The United Nations Conference on Environment and Development provides a number of opportunities with regard to this task, and the Regional Preparatory Meeting for Latin America

and the Caribbean is only one of the stages in the road leading up to that Conference. There will be other occasions on which the Governments will meet within ECLAC,⁶ and many opportunities for them to continue to build up a negotiating platform. Consequently, it is necessary to outline a programme of work covering the rest of 1991 and the beginning of 1992, in order to provide the Governments of the region with even better elements for decision-making, information and analysis.

Some actions can be begun immediately within the regional context, on the basis of the agreements reached at the Regional Preparatory Meeting in Mexico City. After that meeting the ECLAC secretariat will initiate consultations with the countries in order to prepare a *regional agenda of items of common interest*, embodying the concrete suggestions made with regard to issues and actions for the 1990s. In these consultations, the collaboration of all the international and regional bodies would be sought, as well as that of the relevant non-governmental organizations.

6.1 *Executive Notes*

During this preparatory period, it is important to promote an active exchange of information among the countries of the region, and to this end ECLAC plans to provide the countries with a series of *Executive Notes* which will report on the most important matters arising during the period of preparation for the United Nations Conference, which is expected to be a period of intense negotiations. The aim of these Notes will be to provide information, set forth points of view on specific matters, explain the bases and terms of the negotiations taking place, and discuss topics which the countries of the region may consider to be of importance for their own work programmes. They will deal, *inter alia*, with legal, institutional, scientific, technical, economic and social aspects related with the provisional programme of the United Nations Conference and will also give full details of the work programmes approved at the Regional Preparatory Meeting in Mexico City.

6.2 *Strengthening of institutions*

The *strengthening of institutions* is also of priority importance. The capacity for the planning and execution of environmental programmes

urgently needs to be strengthened, since within a relatively short space of time the available financing may exceed the absorptive capacity. Consequently, priorities must be fixed for institutional reforms within the structural adjustment programmes. Through these reforms, ways can be found of strengthening national sovereignty and increasing the bargaining capacity of the whole region. An important part of this strengthening of institutions consists of matters connected with environmental legislation, regulations and standards and the management of natural resources.

ECLAC could devote special attention to this issue by forming an interim committee on legal affairs within the secretariat which would function up to the end of the United Nations Conference. This interdisciplinary committee, supported by experts from the countries, could set about preparing a document to programme the studies to be effected and assist in the formulation of guidelines for the most important negotiations. Its function during this period could also include the provision of assistance and advice to the countries of the region on questions of legislation in this field.

With respect to the recommendations of a regional and international nature aimed at adapting the institutional legal basis to the needs of sustainable development, it would be desirable to analyse in greater depth the existing international and regional regulations concerning the management of natural resources and the environment. This would help to evaluate the desirability of the participation of the countries of Latin America and the Caribbean in these instruments, as well as to identify legal shortcomings of various kinds and seek the possible adoption of new agreements. The Environmental Perspective to the Year 2000 and Beyond and the Montevideo Programme for the Development and Periodic Review of Environmental Law seem to be appropriate lines to follow in seeking out such shortcomings. It would also be desirable to carry out an ongoing follow-up of the negotiations on the framework agreement on climate change and the draft convention on the conservation of biological

diversity, as well as other instruments whose adoption may be discussed at the 1992 Conference.

6.3 Training

It is particularly important for the population to participate more actively in education and training on matters relating to natural resources and the environment. This participation should take place on all levels, and should include persons working in the public service as well as in the private sector. In preparing the relevant programmes, a substantial contribution could be made by the professional experience existing in each nation, since the education and training must be carried out in the light of real national conditions.

In this respect, consideration could be given to the establishment of an international centre for education and training in these matters. In order to put this idea into practice immediately at low cost, this centre could begin its work as part of a specific activity within an existing body.

The appropriate adaptation of the structure already available in the ECLAC system could contribute to the achievement of the desired objectives within the short term, especially through the collaboration of experts from the region itself possessing specialized knowledge in the fields of natural resources, the environment, economics and technology. The aim of this effort of adaptation would be to offer a training programme on environmental matters by making use of the capacity already existing in the region so as to take full advantage of the experience of the institutions already involved in the provision of training on these matters, such as universities, NGOs or training centres, as well as of enterprises carrying out environmental programmes or providing environment-related equipment or services.

The United Nations Conference on Environment and Development offers an opportunity to gain a better understanding of the magnitude of the challenge involved in achieving sustainable development in the countries of Latin America and the Caribbean. In order to face up to this challenge, it is necessary to outline an agenda

of priority activities which will make it possible both to advance in the substantive incorporation of the environmental dimension into the process of changing production patterns with equity and to secure the full participation of the countries of the region in the United Nations Conference: in the preparatory activities for it, in the Conference itself, and in the subsequent activities to which it will give rise.

6.4 Protection of the biological diversity of the region

It is now becoming essential to prepare detailed programmes for the protection and conservation of flora, fauna and certain ecosystems which give the region its biological diversity. These programmes could centre upon the various aspects involved in this issue, such as the spatial, technical, economic, social and other dimensions. In view of the intraregional and international externalities involved, the countries of the region could take part in a biodiversity committee based in a regional organization (which could be ECLAC itself, for example), in order to take proper advantage of the existing physical and institutional infrastructure.

6.5 Other issues

6.5.1 Basic and applied research

With regard to *basic and applied research*, the level of empirical knowledge relating to the sustainable development is insufficient and past experience has been somewhat random. It is therefore necessary to establish or strengthen information systems at both the micro and macroeconomic level. This means carrying out basic and applied research and setting up national institutional structures in keeping with the above needs. It will therefore be necessary to concentrate on aspects such as the following:

- a) Developing the capacity to carry out evaluation and monitoring action on natural resources and the environment at both the national and regional levels. Such capacity practically does not exist in the region, even though it is indispensable for the preparation and execution of development policies. Frequently, the region is not in a position to

defend its interests simply because it does not know what it possesses, how much it possesses, how much it is using, and the relations which exist between these aspects.

- b) Arranging regional and subregional agreements on specific research matters such as pest and disease control, management of international river basins, climate change, etc. These co-operation agreements will increase each nation's management and negotiation capacity, as well as furthering regional integration.

With regard to *technology and environmental sustainability*, since technological change will play a central part in the attainment of sustainable development, various activities in this area are therefore of particular importance. Among them are:

- a) Studying the experience accumulated in the course of bilateral, multilateral and national technology transfer programmes in the public and private sectors, with the aim of defining criteria to increase the effectiveness of such programmes.
- b) Increasing national and regional capacity to create, adapt, evaluate and transfer technology, and developing policies and institutions in this sphere.
- c) Strengthening international co-operation in terms of technical assistance and resources. Such co-operation is indispensable for attaining the objective of developing the "clean technologies" needed for sustainable development.

With regard to *energy and the environment*, in view of the significant environmental impact of the energy sector and the financial restrictions affecting its expansion, it is important to further the following activities, among others:

- a) Programmes for the efficient use of energy at both the industrial and household levels. This is an area where there is an enormous amount of experience available, both inside and outside the region, as well as possibilities for financial co-operation and technical assistance.
- b) The exchange of experience and information on the environmental impact of

the various energy sources in Latin America. Those participating in these activities could include energy sector enterprises, local and national authorities responsible for energy and environmental matters, and multilateral financial agencies.

Activities are also called for in the field of the management of *environment-related enterprises*. In view of the role that should be played by enterprises in the identification and application of environmentally sustainable production methods, either as promoters of environmental programmes connected with their own productive activity or as suppliers of environment-related equipment and services, it seems necessary to promote the following activities at the regional level:

- a) Participation by the countries of the region in the projected sectoral study on efficient energy use to be carried out under the co-ordination of the International Chamber of Commerce with the sponsorship of the meeting of entrepreneurs held in connection with the Bergen Conference organized in May 1990 by the Government of Norway in co-operation with the United Nations Economic Commission for Europe (ECE);
- b) Promotion of the exchange of experience and information between Latin American and Caribbean enterprises currently carrying out environmental programmes and the national authorities responsible for establishing standards and promoting investments in this field at the local, provincial and national levels;
- c) Promotion of the exchange of experience and information between enterprises supplying environment-related equipment and services, national, regional and multilateral financing bodies, and the authorities responsible for establishing standards;
- d) Closer contact at the national and regional level between users and suppliers of environment-related equipment and services. In the case of the smaller companies, it will be necessary to promote forms of organization that facilitate these contacts.

6.5.2 Economic policies

With respect to *region-wide economic policies*, the relation between these policies and resource use and the environment has not yet been sufficiently investigated. In this context, priority should be given to a limited number of questions, especially the following:

- a) The past and present effects of the external debt, which, as already explained in the chapter on economic policies, has affected the human and natural environment in various ways.
- b) The terms and instruments of financing, which represent a basic priority, involving the investigation of the different forms of domestic and external financing. The contrast between the nature of the programmes and the forms of financing will give the countries vital pointers regarding forms of negotiation and conditionalities.
- c) The capacity for the execution of these programmes, which is a matter which not

only involves financial aspects but also institutional and governmental dimensions.

- d) Economic policies aimed at growth, equity and sustainability, which should be analysed in greater detail. The main purpose of this would be to provide the countries with a broader range of options in terms of economic and environmental policies, so that they could select those which are most viable for each country from the economic, social and political point of view.

The analysis presented in this document and the proposals made in preceding paragraphs seek to provide the region with a better knowledge of its own resources and options as regards sustainable development. This is essential in order to be able to negotiate on the basis of a position that is *truly* –not just morally– equitable in all forums, with the aim of seeking agreements with other countries on the use of the region's resources, financing and the transfer of technology.

Notes

¹ For a more detailed discussion of this principle, see chapter IX.

² *Ibid.*

³ UNEP, *Final Report of the Seventh Ministerial Meeting on the Environment in Latin America and the Caribbean* (UNEP/LAC-IG.VII/4), Port of Spain, 23 October 1990

⁴ Latin American and Caribbean Commission on Development and Environment, *Our Own Agenda*, Washington, D.C., IDB/UNDP, 1990.

⁵ There are many institutions in the region which have ample capacity to participate in the development and dissemination of new technologies. Among these, mention may be made, purely by way of example, of the State University of Campinas and the Technological Research Institute of São Paulo (Brazil); the Centre for Research and Advanced Studies of the National Polytechnic Institute and the Institute of Engineering of the National Autonomous University of Mexico (Mexico); the Institute for Technological Research and Technical Standards of Peru; the Statistical Research Centre for Experimental Agroindustrial Production (Venezuela); the Caribbean Industrial Research Institute (Trinidad and Tobago) and the Central American Institute for Industrial Research and Technology (Guatemala).

⁶ It may be recalled that the twenty-fourth session of the Commission will be held in Santiago, Chile in April 1992; that is to say, only two months before the United Nations Conference.