Network for Cooperation in Integrated Water Resource Management for Sustainable Development in Latin America and the Caribbean

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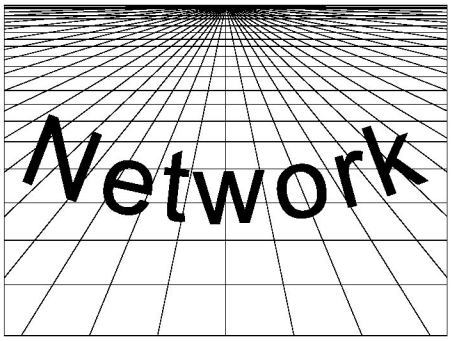
The privatisation of public services in the Latin American and Caribbean countries has been motivated by financial considerations, and also by changes in ideological, political and economic systems. This process has been carried out throughout the region since the mid-1980s, at a different pace, breadth and depth in each country.

Almost twenty years later, some of these processes of privatisation of public services are not living up to expectations, owing to macroeconomic problems, disparities in the social context, or simply owing to defects in the regulatory framework, and in some cases a combination of these factors.



The privatisation of public services, together with globalisation, has led to a situation where issues that were formerly considered to be domestic are today resolved in arbitration tribunals, which do not necessarily have the capacity or procedures to deal with issues that are structurally related to development and general welfare. This is aggravated in economies in crisis, as petitions are made to these tribunals which in general are an attempt by public service providers to avoid the effects of the crisis. Two types of economic players are thus created: those having all manner of guarantees, whatever the fluctuations in the economy, and those, usually ordinary citizens, who do not have any.

This may have negative effects, as maintaining a constant return in economies in recession increases the relative share of some sectors at the expense of others. This has not been the case in all countries, however. For example, in the United States in the depression of 1929, the courts acknowledged the decline in interest rates and in company profits throughout the country, and were inclined to accept lower returns in public utility services. A twofold effort is required: on the one hand, to adjust the procedures to the nature of the problems, and on the other hand, to adjust the solutions to experience with similar cases.

The previous issue contained the first part of the presentation of the document entitled "***Water governance in the Americas: an unfinished task***", which was prepared by Humberto Peña (member of the South American Technical Advisory Committee (SAMTAC) of the Global Water Partnership (GWP) and Director of the General Department of Water Resources (DGA) of Chile) and Miguel Solanes (ECLAC Regional Adviser on Water Resource Legislation and the Regulation of Public Services and member of the GWP Technical Committee (TEC)). On that occasion the discussion was focused on the conceptual framework of water governance and the general areas of consensus and guidelines. In this issue we shall discuss in greater depth the process of building effective water governance.

It is important to analyse the routes that may allow for progress in constructing the appropriate governance frameworks for the water sector. Latin American countries offer innumerable examples of frustrated reforms to the sector and of efforts which, once legally approved, have ended up dead letters, far removed from the purpose for which they had been approved in the first place (for example, in Chile the control of industrial pollution was made law 70 years before it could be made effective).

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If the source of the reforms that have been attempted is analysed, it can be seen that frequently changes in the water sector are merely a reflection of changes initiated in other areas of the public administration, which in turn have answered to changes in the ideological or economic paradigms of society. For example, in Chile, the social movements that gave rise to agrarian reform imposed a change in water legislation in 1969. Later the transformation of society with the adoption of a neoliberal perspective required once again a change in the water law, as exemplified in the legislation of 1981. In both cases, the reforms which can be considered to be consolidated and effectively incorporated into water management are those that, divorced from all ideology, have appropriately answered the

nature of the problems posed by water resources management and have been in tune with conceptions and practices within the society.

Similarly, since the 1960s, Peru has made several attempts at reform of its legislation with, in some cases, the draft reform legislation being based mainly on political, economic and financial considerations. These projects proposed the creation of non-regulated water markets, ignoring local conditions, traditional uses and the nature of the resource itself. These proposals were stopped because of criticisms made by national, regional and United States professional advisors.

Bolivia has made numerous attempts at reform during the last twenty years, without there being a water law to date. This is due to the difficulties of trying to reconcile the legitimate grievances of traditional users with a model for water resource management more closely linked to the aims of economic development.

There are, as well, reforms within the water sector arising from internal processes independent of the various existing decision-making powers in society. This route is generally slow and difficult, as it means breaking the characteristic limitations of the water sector and the reductionism prevalent in many decision-making spheres, making it especially difficult to engage them on water-related issues.

An interesting example of this is found in Brazil, where water resources specialists managed, after years of effort, to get their legal and organisational proposals accepted at the political level in such a way that they reflected the consensus reached by the water professionals. The importance of this case lies in the fact that it is the result of a discussion that was fundamentally national in nature and so has a solid basis for long-term consolidation.

Something similar could be said of the process that led to the current drinking water supply and sanitation regulation framework in Chile. Here too, the catalyst was the specifically national experience of the sector in regulation, and the transformation process generated strong involvement of the government, the congress and public opinion. Also worthy of note is the case of the current Mexican water law, which was the response of the most prestigious Mexican water professionals to changes in the role assigned to the State and to the introduction of the use of economic incentives for improved management.

The information presented demonstrates that it is not necessary to wait for a general improvement in the governance situation of a country in order to foster initiatives in the water sector. Thus, the regional association and interaction of motivated and aware professional groups may prove decisive in improving sector governance problems and in giving technical viability to proposals for change. Also fundamental is the dissemination and opening up of the debate to the public, the various interested parties, and a wide range of decision-makers, so as to guide the search for effective solutions to existing problems.

As long as a basic consensus is not reached at the various levels, and this consensus does not get through to the political world, there will be little hope for solid progress in the region. Hence the importance of events such as the Water for the Americas in the Twenty-first Century Forum (Mexico City, Mexico, 8-11 October 2002) (see Circular Letter N° 17), which is an initiative of the Mexican Government.

This illustrates the scope of the efforts made at the international level for promoting integrated water resources management. In effect, as human society becomes ever more complex and the intensity of human impact on natural resources becomes more severe, the need to integrate the different elements of water management becomes imperative. In a simpler context, these elements are assumed by society in a fragmented manner without serious difficulty.

A careful analysis of the contradictions arising from approaching water problems from the social point of view (characterised by its fragmentation into multiple entities and ways of acting) or from the natural world (as seen by the intrinsic unity of hydraulic processes) shows definite inefficiencies, lost opportunities for better solutions and generalised conflicts in water management. In summary: loss of governance in the sector.

Water resources management often presents problems requiring a holistic approach. Among these the following are most significant: coordination of supply and demand policies, policies for the quality and quantity of water resources, the joint use of surface and groundwaters, the multiple use of resources, coordinated management of land use, vegetation cover and water, management of externalities, and environmental conservation policies.

In accordance with the above, GWP has defined integrated water resources management as a process promoting coordinated management and development of water, land and related resources, aiming to maximise the resultant social and economic welfare equably, yet without compromising the sustainability of vital ecosystems. According to this concept, integrated management is not an end in itself. It is a means, or more precisely, a "process", a way of approaching dynamic water resources management, characterised by abandoning reductionism. Its urgency depends on concrete situations, being lesser in river basins having a low level of water resource exploitation and low levels of human impact, and in all cases it assumes progressive development ("a process").

Summing up, it implies a major cultural change, reflecting a progression away from the industrial society, which is characterised by specialisation (reductionism), pyramidal structure (planning), and abundant resources, placing the emphasis on infrastructure, as is reflected to some extent in the Mar del Plata Declaration, and towards the post-industrial society (based on knowledge), characterised by integration (holistic), participation and negotiation, the awareness of limited resources, and placing the emphasis on management, as is reflected in the Dublin Declaration. It is for these reasons that effective governance of the water sector will be more and more closely linked to integrated water resources management.

The text of this and other interesting studies on water-related issues are available in the library of SAMTAC at *http://www.eclac.org/DRNI/proyectos/samtac/samtac.htm*.

Important decision of the Court of Appeals of Santiago, Chile

The Superintendency of Sanitary Services (SISS) of Chile dispatched instructions on 12 April and 10 May 2002 to the country's drinking water supply and sanitation companies in which they were ordered to present, as of March 2003, specific, detailed and standardised information on their income and expenses relating to drinking water supply and sanitation services activities. This was to enable the SISS to produce an objective and realistic description of the model enterprise, a basic concept for establishing tariffs in the Chilean regulatory framework.

Aguas Andinas filed a complaint on the grounds of illegality, basically disputing the capacity of the SISS to request such information and objecting to the fact that the request would require the implementation of a special system of accounting in addition to the existing required system. The First Chamber of the Court of Appeals of Santiago unanimously rejected this complaint, and Aguas Andinas did not appeal against this decision.

This decision established a precedent regarding the ability of the SISS to request accounting information on the costs and

income of regulated activities and also of non-regulated activities that shared the same infrastructure. The decision took into account the principle of economic freedom together with the community's legitimate general interest of being provided with drinking water at fair prices.

Although in Chile this was a significant decision, it was not a new phenomenon in comparative public service law. The principle of full access to the internal information of regulated enterprises, including the capacity of the regulator to define the accounting system to be used by the enterprises under its control, is well established in regulatory systems with a long tradition of providing public services by the private sector, especially in the United States of America.

In the United States at the end of the nineteenth century and at the beginning of the twentieth century, little attention was given to the accounting of regulated enterprises. This lack of attention led to serious abuses of both consumers and investors and, at that time, accounting irregularities were a frequent occurrence: operating expenses were overstated in the accounts, it was impossible to establish accurately the investments in plant and equipment, no distinction was made between activities related or unrelated to the provision of regular services, and overcapitalisation —often at the expense of the investors— was common.

Since that time, it has been generally recognised that the regulators cannot carry out their task effectively if they do not have the necessary authority to define the accounting system to be used by the companies under their jurisdiction. In the United States, this capacity of the regulators was recognised by the Supreme Court in 1912: "If the Commission is to successfully perform its duties in respect to reasonable rates, undue discriminations, and favouritism, it must be informed as to the business of the carriers by a system of accounting which will not permit the possible concealment of forbidden practices in accounts which it is not permitted to see, and concerning which it can require no information".

It is surprising, in view of this information, that more than a decade after beginning the process of privatisation in the drinking water supply and sanitation sector and the creation of regulatory agencies, virtually no country in the region has a good and consolidated regulatory accounting system, a basic tool for mitigating the effects of asymmetry of information. This fact leads to various significant problems:

- The impossibility of having standardised and consistent information, as at present, each company classifies its income and expenses essentially according to its own definition (and convenience), which can change from year to year or case to case in a strategic manner. As a result, it is impossible for the regulator to have consistent and comparable information from different companies or over time.

- In the case of companies which, in addition to providing drinking water supply and sanitation services, participate in non-regulated activities and share facilities and resources between both businesses, it is difficult to ensure that the tariffs are financing only the expenses related to providing the regulated services and thus determine the true level of profitability of the regulated activity.

- In view of the limitations of conventional accounting, it is difficult: (i) to disaggregate expenditure at the level required for regulatory purposes (for example, by activity, stage, location and installation of infrastructure); and (ii) to measure correctly certain types of expenses (for example, capital replacement costs, such as major repairs) separately from those of routine repair and maintenance (that is, maintaining equipment that is fully operational, and usually within its expected technical useful life).

- The fact that the information available is neither consistent nor comparable between the different enterprises and over time, essentially obstructs the practical implementation of benchmark or yardstick competition for lack of a reliable information source.

In view of these considerations, one of the first priorities for regulatory bodies in the Latin American and Caribbean countries is the development and implementation of regulatory accounting.

On 22 September 2003, the ***Meeting on Critical Issues in the Regulation of Drinking Water Supply and Sanitation Services in the Countries of the Region*** was held at ECLAC headquarters in Santiago, Chile. This event was organised by the Natural Resources and Infrastructure Division of ECLAC with support from the SISS. The meeting was attended by experts from Argentina, Bolivia, Brazil, Chile, Costa Rica, the Dominican Republic, Mexico, Peru and the United States, as well as representatives of international organisations.

The main objective of the meeting was to analyse topics of growing importance in the regulation of drinking water supply and sanitation services in the countries of the region. The discussions focused on the following subjects:

- The influence of international agreements to protect investment and trade on the national capacity to regulate public services.
- Urgent issues in the regulation of drinking water supply and sanitation services in the countries of the region.
- Lessons from rate-of-return regulation in the United States.
- Inclusion of the mitigation of natural disasters in the regulatory frameworks for the drinking water supply and sanitation sector.

With regard to the situation of the drinking water supply and sanitation sector in the countries of the region, the experts came to the following conclusions:

- There is a lack of policies that have an integral approach to the sector.
- Institutional weakness affects the independence of the regulatory bodies.
- Civil society lacks knowledge of the role of the regulatory bodies.
- Regulations are deficient.
- There is little civil-society participation in the regulatory system.
- There are shortcomings in the coverage and quality of the provision of services.
- Expansion goals require investments that are very substantial in relation to the population's ability to pay.
- With few exceptions, there is a lack of efficient subsidy mechanisms.
- There are problems of asymmetric information between the regulator and regulated enterprises.
- The results of privatisation processes have not been very encouraging.
- Agreements to protect investors which, in the experience of Argentina, result in arbitration mechanisms that reduce the powers of the State and give priority to the rights of investors.

Several experts emphasised in their presentations that one of the priority areas to be reviewed by ECLAC should be the influence of international agreements for investment and trade protection on the national capacity for regulation of public services.

As a result of the debate, the experts formulated the following recommendations on drinking water supply and sanitation services:

- To formulate comprehensive policies which cover resource management and environmental protection, and are based on the needs of the community and its socio-economic conditions.
- To strengthen the technical capacity and financial sustainability of the regulatory bodies, as essential elements for management independence and autonomy.
- To disseminate information on the role of the regulatory bodies in order to foster a greater understanding of their aims for improving services.
- To encourage users and civil society in general to participate in the regulatory system.
- To ensure that the providers' plans consider in a balanced manner the need for services and the population's ability to pay.
- To devise financing mechanisms and subsidies to guarantee the socio-economic sustainability of the services.
- To implement programmes to strengthen the regulatory bodies and other relevant actors in the process.
- To improve the regulatory frameworks, with particular attention to adjudication mechanisms and contractual frameworks, as well as instruments to make the regulator's management more effective.
- To analyse in greater depth regional experiences in connection with arbitration mechanisms in the area of public service contracts.
- To encourage the dissemination and exchange between the countries in the region of their experiences and lessons learned, both in relation to regulatory practice and in issues of international arbitration relating to public service contracts.

Bilateral investment treaties and compulsory international arbitration

We present below the conclusions of the presentation made at the above meeting by Horacio Rosatti, Procurator of the Argentine Treasury, on the subject of ***bilateral investment treaties, compulsory international arbitration, and the Argentine legal system***.

The arbitration system of the International Centre for Settlement of Investment Disputes (ICSID), which is triggered by certain provisions included in the bilateral investment treaties, is a mechanism which is both *hermetic* (once entered into, there is no way of exiting) and *self-referential* (it is a mechanism that interprets itself) which inhibits any attempt to control —by means of a national tribunal and based on content— the correspondence between the text, the interpretation and the application of a treaty and hierarchically superior national regulations that are in force in the country.

For the Argentine Republic, the impossibility of exercising local judicial control of unconstitutionality is not an issue of *process* but of *substance*, to the extent that it inhibits the consideration of the validity of the following *principles of public law*, observance of which is a condition, according to the National Constitution, for the validity of international trade treaties: the *representative, republican and federal form of government*, the *principle of jurisdiction and that of reserved powers*, the *principle of equality*, the *non-absolute nature of rights* and the benchmark of *reasonableness for its regulation* and *due legal process*.

Prima facie, the Argentine *public law principles* referred to above may be violated in certain circumstances by a combination of bilateral investment treaties and ICSID as follows: the *representative form of government*, in so far as the activity of the constituted national powers is restricted or limited (the legislative power, in the case of a prohibition on modifying the initial legal conditions of the investment on account of the "legal stabilisation clause", and the judicial power, in the case of impossibility of taking action to monitor constitutionality); the *republican form of government*, in so far as when the attributions of the national legislative or judicial powers are assumed or limited, an imbalance is generated towards the executive power (which is the one that designates the arbiters, who —to a large extent— replace the national constituted powers referred to), thus blurring the criterion of "division of powers" which is consubstantial to the republican form of government; the *principle of jurisdiction and of reserved powers*, in so far as the overestimation of the legal power of trade treaties introduces a modification in the Argentine regulatory hierarchy established by the National Constitution by methods other than those established by the latter; the *principle of equality*, in so far as —under certain circumstances and by joint or separate application of "most-favoured nation" and/or "legal stabilisation" clauses— a discriminatory situation is established in favour of foreign legal entities; the *non-absolute nature of rights*, in so far as there is a prohibition on legislative modification for certain rights relating to the original status of the investment through application of the "legal stabilisation" clause referred to; and *due legal process*, in so far as access to national jurisdiction is impeded, frustrated or interrupted, and the principle of natural judge is infringed or similar local remedies are limited.

The incipient jurisprudence of ICSID in relation to the interpretation of bilateral investment treaties tends to generate an increasingly wider gap between *national and international* perspectives in relation to investment disputes and threatens to destroy the climate of confidence patiently reconstructed between countries such as Argentina (there are surely others) and the international legal system.

In the case "*Maffezini, Emilio Agustín vs. Kingdom of Spain*", by virtue of a peculiar application of the "*most-favoured nation*" principle, and as if the issue at stake was merely of a *procedural* nature, the impossibility of exercising local judicial control of the foreign investment relationship was multilateralised. On the basis of that precedent, the clause should be renamed the "*most-favoured investor*" clause.

Even more seriously, on the basis of the decision on acceptance of jurisdiction in "*CMS Gas Transmission Company vs. Argentine Republic*" the door has been opened (in fact a floodgate) for any minority shareholder to take action against a sovereign State in relation to an investment over which he has no effective control. This case, on the pretext of resolving a procedural issue, has caused serious damage —the extent of which is not yet known— to a sovereign country, in terms of multiplication of litigation, of encouraging abuse of the arbitration process, of reckless recourse to international jurisdiction and potential disruption of the emerging process of contractual renegotiation. This precedent shows to what point the arbitration system turns on its own axis and around its own interests, ignoring the economic, institutional and social consequences that it generates.

If international arbitration on commercial issues is not understood as a *system*, linked —on the one hand— to other commercial arbitrations brought against the same sovereign State and —on the other hand and "in some way"— with the national regulatory order, the consequence is obvious: the success of the first investor will be inversely proportional to the success of the others, because "there won't be enough for everyone". This will, among other undesirable consequences, distort one of the basic objectives invoked in the establishing of bilateral investment treaties, which is to achieve a "stable legal framework" and higher levels of "legal security" for foreign investors.

If the escalating lack of confidence is to be contained, the mistakes (and abuses) committed in the past will have to be assumed *reciprocally*, and the purely commercial mentality with which certain issues are approached will have to be modified (to take into account the global socio-economic

context). The profile of the arbiters will have to be reviewed, and also their representativeness and responsibilities and —basically— *common sense* must not be forgotten, as it is a fundamental source of *legal good faith*.

Can a clause reflect reality when it stipulates as eighteen months the duration of a controversial case in the tribunals of Argentina (and of how many other countries!) from its initial presentation to obtaining a definitive sentence? A sample was carried out by the National Auditing Department of the Procurator of the National Treasury, on a universe of 1600 cases of significant economic importance that were brought against the National State. All cases were presented between 1985 and 2000 and all involved evidence subject to judicial review, that is, they were similar in nature to a conflict generated by non-compliance with a bilateral investment treaty. The survey showed that the "average duration" of the judicial process —calculating from presentation of the claim to obtaining the judgement of first instance— is six years and one month. This is not an anomaly that is attributable to the courts involved; other surveys carried out in other forums with regard to cases where evidence is subject to judicial review show similar average duration periods.

Another *default* (this time jurisdictional) by the countries receiving investments could be a harsh setback not only for the investors and for sustainable and harmonious development of the countries affected, but for the international legal system. In so far as it reflects thought-out and sensible positions —rather than a victory *at any cost* of a dominant position— will make it possible to progress towards a universal awareness which transcends all differences and is ready to acknowledge supranational values.

The text of this and other papers presented at the meeting are available at *http://www.eclac.org/drni/noticias/noticias*.

ToolBox is a tool designed by GWP which seeks to facilitate the exchange of experiences with regard to good and bad practices in water resources management (see Circular Letter N° 17). It is complemented by a series of case studies that illustrate the use of the ToolBox tools. In the previous issue we reported on case studies carried out by SAMTAC in Buenos Aires, Argentina; Cochabamba, Bolivia and Talcahuano, Chile. In this issue we present the document "*Mercados de agua: estudio de caso del Código de Aguas de Chile de 1981*" (*Water markets: a case study of the 1981 Chilean Water Code*) by Guillermo Donoso.

Water markets: a case study of the 1981 Chilean Water Code

The main aim of this work is to conduct a case study of the water rights market established in the 1981 Chilean Water Code as a mechanism for allocating water resources. For this purpose, an analysis was made of the formulation, development, implementation and evaluation of the results obtained with the operation of that market. In the context of the case study analysis, a round table was held to determine the most significant lessons learned from this study. The main results are presented below.

What are the indispensable conditions for establishing a market system for water rights in a specific society? In general, the participants agreed that the main conditions are:

- A resource shortage. That is, when water has a scarcity price.
- Protection of the intangibility of water rights.
- Clearly defined water rights.
- Free transferability of the right.
- Adequate regulations to cover externalities, damage to third parties and the public interest, among others.
- A social and cultural context that is in harmony with the economic system.
- An inventory of water resources.
- The water should have a sense of individuality that is separate from the land.
- Security of rights: (i) physical security: management, knowledge and control of the source; and (ii) legal security.
- Infrastructure that allows for transfer of rights.
- A flexible mechanism for conflict resolution.

Has the market facilitated the reallocation of water rights from uses of lower value to uses of higher value and in what circumstances has this occurred? The participants agreed that:

- Transfers have taken place from those who value the resource less to those who value it more.
- In the drinking water supply and sanitation sector, the highest level of activity has been in Santiago, but the quantity of water transferred from one sector to another has scarcely changed historically and has been proportional to the growth of the city.
- Drinking water supply and sanitation companies have an open purchasing power; conditions have been created for the transactions.
- Transfers from the agricultural sector to the drinking water supply sector have involved water in the agricultural sector that had been used only marginally or had fallen into disuse or had been covered by urban growth.
- There has been no case of a transfer from intensive agricultural use, unless the land was sold, or there was excess water.
- The exceptions to the above statement are: (i) the case of the river Loa: mining companies have made significant purchases, so that water previously used in the agricultural sector has been transferred to the mining sector, but agriculture is not very significant in the Loa area; and (ii) the case of the Paloma system: the short-term market is very flexible and significant.
- Transactions take place when there is no water available for the State to provide free of charge, hence the element of scarcity is fundamental for the existence of the market.

The consensus was reached that the information available is insufficient for a formal response to the question of whether the market has allowed a reallocation of water rights from uses of lower value to others of higher value. A good public database is needed in order to verify the operation of the market.

What type of issues have been resolved through the market and in what situations? It was concluded that:

- The market has made it possible to place a value on raw water.
- It has facilitated mining development in areas of scarcity through the purchase of agricultural rights (for example, in the river Loa).
- Drinking water supply companies have resolved problems relating to high demand (for example, Agua Potable Cordillera).
- It has helped to resolve scarcity problems when a rapid response was needed (as for example in the case of the mining company Manto Verde in Copiapó).

Which issues have not been resolved through this allocation mechanism?

- The need to enhance the efficiency of water use in all sectors, not only the agricultural sector.
- Environmental problems, maintaining ecological flows.

What elements have hindered reallocation through the market?

- The lack of an obligation of use, which encourages monopolistic behaviour.
- The lack of a register of water rights owners.
- Lack of a flexible mechanism for conflict resolution.
- Lack of a clear definition of water rights.
- Little flexibility for temporary transfers.
- Rigid infrastructure that does not facilitate market operation.

Have there been problems of monopolisation of water rights? The participants concluded that this behaviour:

- Is not a problem relating to the market, but rather one of initial free allocation without obligation of use.
- It has happened, but not because of the market. It is because of the initial allocation and the structure of water rights. It is also due to the way in which water rights are allocated by the administration.
- There is evidence of monopolisation of water rights granted under the 1981 Water Code, in specific river basins, for consumptive and non-consumptive uses.

Prevention and reduction of the danger posed by natural disasters

We present the preliminary conclusions of the four case studies (sub-basin of Arroyo del Medio, Argentina; Limarí river basin, Chile; Tunjuelo river basin, Colombia and Sisa river basin, Peru) carried out as part of the project "***Prevention and reduction of the danger posed by natural disasters***" (see Circular Letters N° 16 to 18). This project is implemented by ECLAC, through the Natural Resources and Infrastructure Division, with support from the German Agency for Technical Cooperation (GTZ).

- To introduce, through education and mass public information, the concept of prevention of risks in the institutional and citizens' culture; it should be the backbone

multi-sectoral and decentralised or deconcentrated, which include the subsidiary concept and in which each national, departmental and municipal entity acts under its own responsibility and with its own technical and financial resources, and in which other society actors are involved, are the best guarantee for the sustainability of the process of risk reduction in a country, a department or province or at the municipal level.

- The participation of the different institutions concerned with risk issues cannot be left to depend merely on the good will of the latter; regulations are required which establish individual responsibilities for each institution. It is also essential to have regulations which explicitly assign responsibility to the risk generators, whether public or private actors or individual citizens. In this connection it is important to encourage the territorial administrations to define policies that establish public and private responsibilities in relation to risks and generate risk-transfer strategies that deal with insurance for public goods and provide incentives for the private sector;

- The establishment of specialised permanent agencies in the territorial governments for integral risk management would contribute substantially to increasing the continuity and effectiveness of such management and to creating forums for integration and coordination of the various actors involved in the issue in each territory.

- In order to provide an institutional framework for integral risk management, it should be made explicit in departmental and municipal regulations the functions and responsibilities of each of the organs of administration, such as planning, finances, health, education, public services, infrastructure and the environment, so that they work on the issue under their own responsibility and with their own resources

- The greatest possible effort should be made to generate mechanisms and procedures whereby the social players participate in the decision-making processes for activities to be carried out and for public investment in risk management.

- The political, administrative and financial decentralisation of a country is almost a prerequisite for the autonomy, responsibility and sustainability of effective risk-reducing action at the departmental or provincial and municipal level. In those countries which have a very centralised administration, at least some effort must be made towards deconcentrating functions, responsibilities and resources.

- To link the issues of risks with areas such as culture, governability, the environment, territorial development, health, education, public services and the fight against poverty, creates greater possibilities for political, social and financial sustainability for risk reduction.

- A complementary strategy should be the incorporation of the topic of risks in political campaigns for governmental elections at the various state levels, in order to receive commitment from that time from the future governors.

- To promote the introduction of the risk topic in government plans of the national and territorial administrations is also an indispensable step for achieving political support and the allocation of technical and financial resources during the corresponding mandate.

- Legislation for territorial planning with a deep-rooted preventive element offers one of the greatest opportunities for the Latin American and Caribbean countries to achieve, in the long term, a real reduction in socio-natural risks. Analysis should be carried out at the local or municipal level, which is where the limitations and