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SYSTEMS OF ADMINISTRATIVE ORGANIZATION FOR THE INTEGRATED
DEVELOPMENT OF RIVER BASINS

Outline of the different types of institutional structure
used in Latin America and the rest of the world

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Note by the secretariat

At its sixth session, held at Bogota in 1955, the Economic Commission for Latin America adopted resolution 99 (VI) on energy and water resources in which it recommended, inter alia:

That Governments should "bear in mind the advisability of creating and improving ... institutions responsible for the formulation of policy in this sphere and also organizations responsible for compiling information and statistics and for evaluating the potential ..., water ... resources and their final utilization";

That the secretariat should "carry out a preliminary examination of water resources in Latin America, and of their present and future utilization in so far as possible for multiple purposes"...

Pursuant to the last recommendation, the secretariat set up, jointly with the Technical Assistance Administration and World Meteorological Organization, a Working Group to carry out the necessary studies.

As part of the general background information for more specific studies in Latin America, Mr. Guillermo J. Cano, the legal and administrative expert of the Group, was requested to prepare a study on systems of administrative organization for the development of river basins. It is thought that member Governments will be directly interested in such a study which is a compilation of the experience acquired in this field in all parts of the world.

The following text is not final. The author assumes sole responsibility for the accuracy of the information and for the opinions expressed.

INTRODUCTION

1. Governmental levels at which the problem of agencies responsible for the development of water resources arises.

Purpose of the Study

The most suitable types of administrative organization for the development of water resources fall into five categories: (a) international; (b) national (covering an entire country); (c) regional (covering part of a country, usually a river basin); (d) local (a province, State or any other major political sub-division of a country); and (e) municipal.

(a) With respect to the international level, i.e., the administration of development programmes for international river basins, a preliminary study has been made in a recent United Nations document.^{1/} Prior to this, the International Labour Organisation also considered the subject.^{2/} So far the only organizations to be set up in Latin America, are those for research or programming which are listed in a publication by the Interamerican Bar Association,^{3/} but none has executive functions as yet. The Economic Commission for Europe (ECE) and the World Health Organization (WHO) are concerned with the international organizations dealing with the problem of water pollution in international river basins.^{4/} ECE has also done constructive work in promoting the establishment of organizations for

^{1/} Integrated river basin development (E/3066), p. 35 (paras. 26-38) and p. 39 (paras. 6-9).

^{2/} Herman Finer, The TVA: Lessons for international application, Montreal, 1944, para. 140.

^{3/} Guillermo J. Cano, The juridical status of international (non-maritime) waters in the Western Hemisphere, Interamerican Bar Association, Washington 1958 (United States Library of Congress, catalogue card #58-12112), pp. 99 et seq.

^{4/} WHO, Administrative aspects of water pollution control, Preparatory paper N° 1, Fourth Inter-Agency Meeting of Water Resources, Geneva, 1957; ECE, Problems concerning water pollution abatement in Europe, note for the same meeting; A study on water pollution control problems in Europe (E/ECE/311), pp. 56-71, and Water pollution control problems in Europe (E/ECE/312), paras. 6-7.

international trade in hydroelectric energy.^{5/} These two aspects - water pollution and the international utilization of energy - are only individual uses or aspects and do not by any means constitute the whole problem of integrated water resources development. In both cases, however, administrative organization is one of their most important aspects.

(b) With regard to the national or country level, the Economic Commission for Latin America (ECLA) has completed studies of water resources in Chile and Ecuador. Both documents include a chapter on the national aspect of the question. The Economic Commission for Asia and the Far East (ECAFE) has published some information papers on the countries in its sphere of action.^{6/} The Secretary-General of the United Nations has repeatedly emphasized the need for water development commissions or boards to be organized in each country on a national basis, and has formulated recommendations in this respect.^{7/}

(c) The regional level (mainly by river basins) will be dealt with in this report.^{8/} An attempt has been made to give an objective and systematic description of the main organizations of this kind in the world in order to guide and inform Latin American Governments and persons interested in these problems. Similar agencies operating in Latin America will also be reviewed.

^{5/} Prospects of exporting electric power from Yugoslavia (E/ECE/192); International action for the development of Austrian hydro resources with a view to power exports (ECE/EP/63); International action to install a pumping station in Luxembourg (ECE/EP/64/Rev. 1).

^{6/} Proceedings of the Regional Technical Conference on Water Resources Development in Asia and the Far East, Flood Control Series N° 9, United Nations publication, Sales N°: 1956.II.F.3, Bangkok 1956, and N° 11, United Nations publication, Sales N°: 1956.II.F.8, Bangkok, 1956.

^{7/} E/2603 and Corr.1, paras. 43-46 and 59; E/2827, paras. 21-23.

^{8/} This aspect has also been dealt with in document E/3066, p. 10 (paras. 9 and 10), p. 16 (paras. 59-61) and p. 26 (paras. 91-107).

(d) and (e) Problems at the local and municipal level have been discussed in a FAO publication^{9/} though in relation to only one aspect: the use of water for irrigation - as well as in an ECLA study on water resources in Ecuador. A report prepared by the United Nations Technical Assistance Administration examines the relationships between the national and local levels in Argentina.^{10/}

2. The administrative organization of regional water development programmes (mainly with respect to river basins).
Nature of the problem.

This is not a legal problem but one of "administrative science". The municipalities have the widest experience in regional administration and are considered by one author to be multi-purpose regional bodies.^{11/} This may indeed be the case, but since by definition they deal with urban problems only and those now being studied cover a much larger territory, they should be left aside. Moreover, the common denominator of the technical problems whereby an area is defined territorially as a "region" and considered in this sense here, is the river valley or basin, with all its inherent or related natural resources.

The problem becomes more complicated in countries that are politically organized as federations, when the agency responsible for carrying out a regional development programme has to act in a zone that comprises several political jurisdictions (provinces or States).^{12/} This is not true of all federal countries, but only of those in which jurisdiction over water resources is divided among the different government levels. Mexico, Brazil and Venezuela, for instance, do not follow this procedure because their respective federal Governments have exclusive jurisdiction over virtually all the waters in question.

^{9/} Guillermo J. Cano, Las leyes de aguas en Sudamérica, Cuaderno de Fomento Agropecuario, N° 56, FAO, Rome, 1956.

^{10/} Advisory Commission on Hydro-electric Planning (Comisión Asesora de Planificación Hidroeléctrica), Una solución nacional. Agua, electricidad, economía, Buenos Aires, 1958, pp. 92 and 106.

^{11/} Finer, op. cit., p. 126.

^{12/} Ernest A. Engelbert, "Federalism and water resources development", Law and contemporary problems - water resources, Duke University School of Law, Durham, North Carolina, 1957, summer issue.

There is no need to enlarge any further in this document on what constitutes an integrated development policy for a river basin. This has been dealt with in a comprehensive report recently published by a United Nations panel of experts, which stresses the importance of choosing the right type of organization for carrying out a policy of this kind.^{13/} It will suffice to state very briefly that such a policy is based on the concept that all natural resources - water, forests, land, mines, fauna, air, flora - are interdependent, and that water, or rather water resources, including snow and clouds, underground and surface waters, etc. can have multiple uses,^{14/} and may also be harmful in several ways.^{15/} Hence, if the maximum social and individual benefit is to be obtained from these multiple uses and effects, they must be co-ordinated and integrated with those of other natural and human resources in the basin. During their early stages of their development, communities have always used water for separate and unconnected purposes. But when the growth of the population and its increasing demand for food, clothing and manufactured goods, made it imperative to use these resources as intensively and efficiently as possible, the concept of their multiple, co-ordinated and integrated use emerged, by virtue of which every use becomes more economic.

The interdependence of natural resources should be emphasized precisely because it is the justification for their integrated or joint administration. If land or forests are used inadequately, waterways silt up and floods are more disastrous. The excessive use of water leads to erosion. Mines cannot usually be exploited without an abundant supply of water for consumption and for generating electric energy and often have to be drained before work can begin. The use of water affects fish, which are often an important item in the human diet. The organization of an agency to carry out an integrated river basin development programme is therefore not merely a problem of civil

^{13/} E/3066, op. cit., pp. 46, 79 and 86.

^{14/} Population supplies, irrigation, electricity, driving power, industrial uses, recreation and touring, transport, medicinal uses and fisheries.

^{15/} Floods, pollution, saline impregnation, undermining of land, erosion, harmful effects on human and animal health.

/engineering,

engineering, consisting in the projection of water works, the excavation of canals or the construction of electric lines. On the contrary, it involves a number of highly complex problems which should be envisaged in advance, as, for instance, the population growth which would result from such a programme, the town-planning and education problems creating capital requirements, the lack of trained technical personnel, which is usually acute in under-developed areas, the need for more roads and railways to transport production, market problems, etc. Hence, it would be useful to take advantage of the valuable experience acquired by countries which are already familiar with these problems, while avoiding the mistake of restricting the activities of the authorities responsible for carrying out programmes of this kind to a few aspects only, to the exclusion of all others or, at least, to the detriment of a co-ordinated approach.^{16/}

There are many valuable sources of information on this type of organization in the world, and countries which are anxious to begin development programmes should make use of past experience in order to avoid the same errors.^{17/}

The earliest experience acquired in this field dates back to 1602, when the Netherlands Government founded the East Indies and West Indies Companies.^{18/} These companies were originally created for a single purpose (in contrast to multi-purpose organizations), but, even so, their experience is useful as regards administrative decentralization, i.e., the adoption of new types of organization which depart from the classic concept of public administration. The idea of multi-purpose regional agencies is of recent origin, dating back only thirty years.

^{16/} Stefan Robock, Regional aspects of economic development: with special reference to recent experience in Northeast Brazil (submitted to the Regional Science Association), criticizes the lack of co-ordination among the various offices responsible for regional development, with reference to the north-east of Brazil.

^{17/} Harry A. Steele and Mark M. Regan, "Organization and administrative arrangements for an effective water policy", Journal of Farm Economics, Vol. XXXVII, N° 5, December 1955, p. 892. This deals with the mutual influence of water policy and of the type of administrative organization chosen to carry it out.

^{18/} Waldemar Ferreyra, "A Companhia Geral para o Estado do Brasil", Revista da Faculdade de Direito, Vol. I, Sao Paulo, 1959, p. 78.

3. World experience in this field

The annex to this study enumerates the principal regional organizations of the world which are concerned with the utilization of water resources, and contains a bibliography and some brief comments on the objectives and powers of those organizations. Not all deal with water resources only, but in every case it is at least one of their functions.

This compilation is intended to supply interested Governments and persons with as much information as possible on the criteria that have been adopted in dealing with these problems in different parts of the world, including Latin America, in order to help them to benefit from past experience.

As one of the main aspects of the problem is the relationship between different Government levels in the same country where the disparity between their powers can be observed more clearly, the list of organizations has been divided into two parts; the first comprises inter-jurisdictional agencies, which are organized by more than one political or administrative authority, and the second, those which are governed by one authority only. In the special case of the United States, which has a great number of agencies of this kind, the classification has been arranged by purposes. This country appears in both parts of the list, since it has organizations in the two categories.

The two categories contain 39 agencies in all, which is indicative of the vast experience that has been accumulated in this field.

Chapter I

TYPES OF ADMINISTRATIVE ORGANIZATION SUITABLE FOR REGIONAL DEVELOPMENT
BASED ON THE UTILIZATION OF WATER RESOURCES

Table 1 outlines the different methods which might be adopted to organize the administration of regional development programmes based on the utilization of water resources and also indicates the way in which the subject has been dealt with in the present chapter.

Table 1

TYPES OF ADMINISTRATIVE ORGANIZATION SUITABLE FOR REGIONAL DEVELOPMENT
BASED ON THE UTILIZATION OF WATER RESOURCES

-
1. Ordinary ministerial (or departmental) organization
 - (a) Independent action by the different offices
 - (b) Inter-office (inter-ministerial) agreements
 2. Decentralized organization (autonomous bodies)
 - (a) Offices with functional jurisdiction
 - (i) Ordinary autonomous bodies
 - (ii) State enterprises
 - (b) Offices with territorial-functional jurisdiction
 - (i) Public corporations (autonomous regional bodies)
 - (ii) "Districts"
 3. State companies
 - (a) Among official bodies
 - (b) Between one official body and private persons (joint company)
 - (c) Among several official bodies and private persons or companies (joint company)
 - (d) Private persons only, but with governmental powers
 4. The use of public establishments or works through contracts with private companies.
-

It has been wisely asserted that this subject cannot be made to conform to cut-and-dried formulae,^{1/} that stress should not be laid on the number of

^{1/} Finer, op. cit., p. 113.

/agencies but

agencies but on the tenor of their statutes,^{2/} and that what matters in the last issue is the ability of those responsible for administering such agencies.

No country has the same geographical and physical features as another or has reached the same stage of economic development. In addition, each has a different historical background which has formed its institutional structure and organizational habits and given rise to traditions which it is sometimes neither feasible nor advisable to abolish even when strictly technical reasons seem to counsel such a step. In view of all these circumstances, it would be impractical to propose a "model" of institutional organization for the problem that is being studied here.

Nevertheless, countries have some racial or cultural elements in common; they may be of the same origin or culture, have developed to much the same level or be faced with the same technical problems (in engineering, agronomy or economy). Hence, their experience can be shared to a certain extent. Moreover, some of the principles underlying the technique of programming economic development have been enriched by experience in other fields of human activity which they have clearly drawn upon to good purpose.

Of all the types of administrative organization examined in this chapter, those reviewed in chapter I, sections 2 and 3, have obviously produced the best results as regards the utilization of water resources.

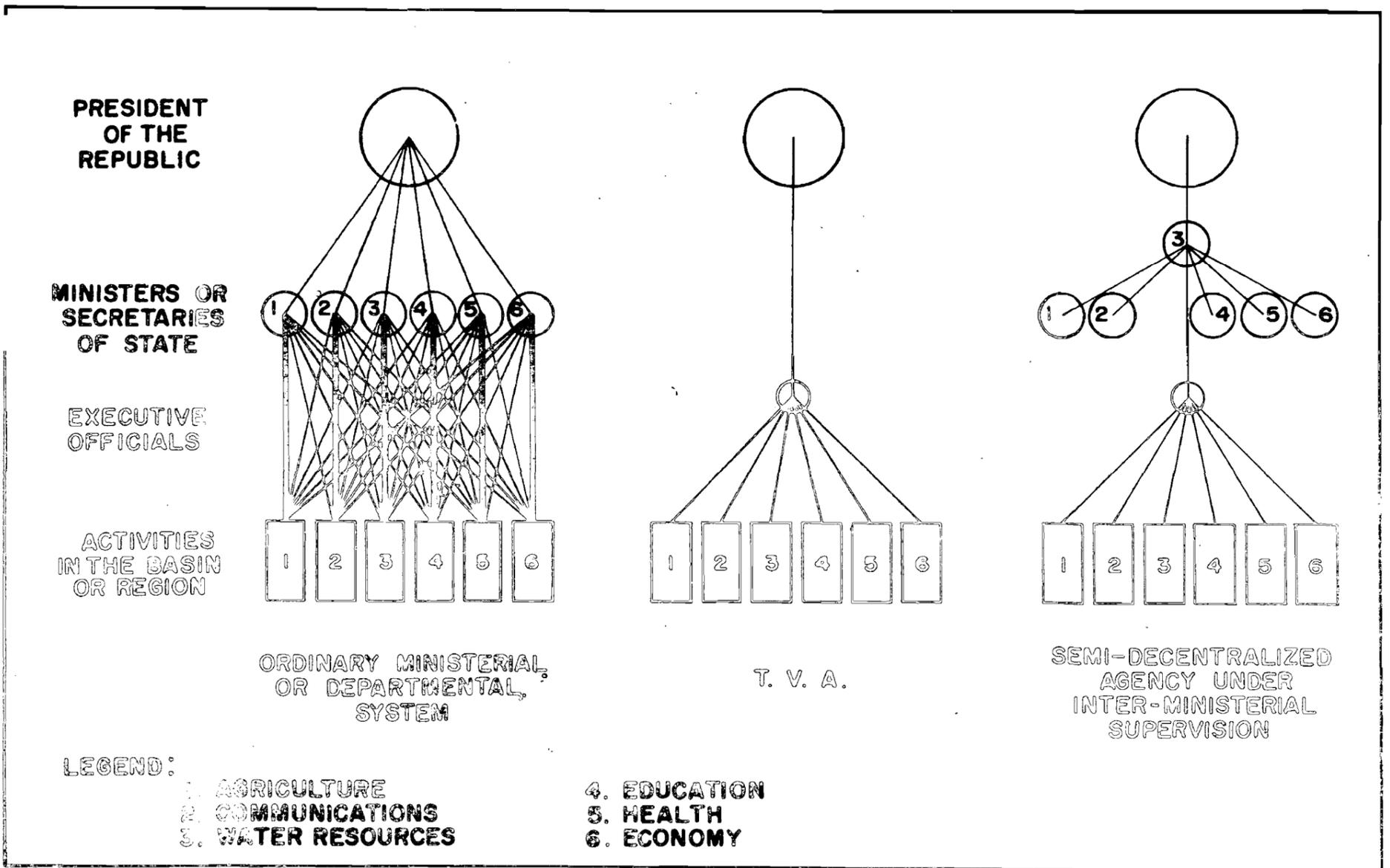
The choice between a private association in which the State has an interest or a public organization that is highly decentralized will depend partly on the political philosophy of the country in question and partly on the need to emancipate such organizations in order to increase their efficiency. A few countries, of which Chile is one, have succeeded in freeing many of their organizations from the pressure of political interests. Although such pressure does not impair administrative efficiency, it is evident that administrative and executive decentralization, combined with the concentration in regional bodies of powers that are normally dispersed among the different Government ministries or departments, can have a very favourable influence on the implementation of river basin development programmes, for the simple reason that the

^{2/} Report on the seminar on organization and administration of public enterprises in the industrial field (E/CN.12/T&T/102) - 10

FIGURE 1

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COMPARISON OF THE VARIOUS TYPES OF ORGANIZATION FOR THE ADMINISTRATION OF RIVER BASINS OR REGIONS



SOURCE: DEPARTMENT OF WATER RESOURCES, MEXICO, "LA CUENCA GRIJALVA USUMACINTA" (MEXICO, 1957) P. 61.

river basin is the common denominator of all problems which imposes a co-ordinated solution.

Hence, the subject will be studied in the light of the foregoing remarks without any particular type of organization in mind. Figure I presents the three systems described below in diagrammatic form. On the left-hand side is the ordinary ministerial or departmental type of organization, in the centre, a decentralized agency with functional-territorial jurisdiction (an autonomous regional body), and on the right, a decentralized office dependent on an inter-ministerial committee.

1. Ordinary ministerial (or departmental) organization

(a) Independent action by the different offices

A Government is usually organized on the so-called "horizontal" pattern, since it is divided into a series of ministries or departments which carry out their duties without any liaison other than their contact at the summit, i.e. their dependence on the President of the Republic or Prime Minister. The ministries are superimposed, from the territorial point of view, since each one has jurisdiction over the whole country. Their powers are distributed on a functional basis, that is to say, according to the activities assigned to each in its own field of action.

This type of organization is quite impractical for regional development purposes, since it would result in the super-imposition, within a limited area, of officials from a series of unrelated departments who would have to depend on instructions given by their chiefs (ministers or secretaries of State) who, being outside the area, would often have little knowledge of the region's problems and no direct contact with them.

Moreover, the ability to take decisions, and therefore the efficiency of the public administration as it is at present, is impaired by cumbersome routine formalities. This slowness is chiefly a result of the controls that have to be placed when public funds are involved.

The problem is so familiar that there seems little need to enlarge upon it any further here.^{3/}

^{3/} See E/CN.11/I&T/103, op. cit., p. 12 and A.D. Gorwala, op. cit., p. 13.

(b) Inter-office (inter-ministerial) agreements

The simplest solution for the situation that has just been described would be the conclusion of inter-office agreements for the co-ordination of activities. This might be done on a national or regional scale. Esprit de corps is apt, however, to weaken these agreements. This problem has already acquired serious proportions in the United States with respect to water resources, and has been discussed in several well-known reports. Offices that are in different departments but deal with the same matters and even work in the same places base their plans of action or appraisal of situations on criteria that are dictated by their own partial and individual objectives, and are disinclined to accept those of the others. Inter-office agreements are capable of remedying this situation to some extent, especially at top levels, but they cannot eliminate the problem altogether since they are powerless to destroy the team spirit among lower-ranking officials. In chapter II, reference is made to a general agreement that was signed in the United States between federal agencies concerned with water resources and regional committees set up to work in the same field.

The same procedure has been adopted on a regional basis in the Philippines for the river Marikina project; the committee is composed of the chief engineers of the National Power Corporation, the Bureau of Public Works and the Metropolitan Water District, under the chairmanship of an official from the National Economic Council (which is for development purposes). The committee meets weekly to project and co-ordinate the studies that each body undertakes separately. The Hokkaido Development Bureau in Japan^{4/} and the Bhakra Nangal and Hirakud Boards in India^{5/} operate along similar lines.

Mexico has similar regional development commissions. Only two have legal status (Papaloapán and Tepalcatepec), while the others are administrative in nature. They are presided over by the Secretary (Minister) for Water Resources, (Secretario de Recursos Hidráulicos) who delegates his executive responsibilities to an official who is always an engineer in Government employ. The third member (secretary) represents both the Ministry of

^{4/} Proceedings of the regional technical conference on water resources development in Asia and the Far East, Flood control series N° 9, op. cit., pp. 49, 52 and 428.

^{5/} ST/TAA/M/7 n 11

National Property (Secretaría de Bienes Nacionales) and that of Finance. The Act of 19 December 1951 gave these commissions exclusive control over their own property and the administration of their income, transferred public lands in the river basins to them and conferred upon them certain powers of taxation. The President of the Republic retains many powers for himself, such as those of approving budgets, wage-scales and respective work programmes. The members of the Commission are directly responsible to him. The Commission has also been given the power of promulgating regulations, in matters falling within their jurisdiction, that concern the integrated development of the areas under their control. The Comisión Hidrológica de la Cuenca del Valle de México is for study and planning purposes only, and is composed of representatives of the Government (the manager of the construction works in the Valle who represents the Ministry of Water Resources, and three engineers acting on behalf of the Federal District Government and the States of Hidalgo and Mexico), and of private associations (College of Civil Engineers and Association of Architects).

2. Decentralized organizations (autonomous bodies)

There are two types of decentralization: functional and territorial. With regard to the first, the higher authority delegates its powers in specific questions to an agency which it has itself set up, thereby conferring on it the right to take an independent decision in such matters. Territorial decentralization takes place when the delegation of powers is made rationae loci, that is, when they are confined to specific zones. Centralization and decentralization may also be undertaken as regards the internal organization of an office. If an office has members in the field which continue to act under its authority, its internal organization will have been decentralized.^{6/} Some exponents of administrative law also make a distinction between autonomy and self-sufficiency, stating that the first is the concern of political law and the second of administrative law.

^{6/} Rafael Bielsa, Derecho administrativo, 4th ed. Vol. II, El Ateneo, Buenos Aires, 1947, p. 8; Guillermo J. Cano, Las leyes de aguas en Sudamérica, op. cit., p. 98.

(a) Offices with functional jurisdiction

(i) Ordinary autonomous bodies. With the exception of municipalities, which are examples of functional and territorial decentralization, the past evolution of administrative organizations shows that functional has always preceded territorial decentralization in the form of "self-sufficient bodies", "public establishments" or "autonomous organizations".

Many countries have set up offices of this kind to deal with some of the uses of water resources, mainly electricity production and irrigation,^{7/} but since they have always dealt with single uses, they have never become multi-purpose and integrated organizations, apart from the exceptions that will be enumerated later.

Although these offices have all the advantages of decentralization (technical efficiency and powers of rapid decision), they are not exempt from some of the drawbacks inherent in the ordinary system of public administration. For instance, they are not based on a uniform system, but are organized with varying degrees of self-sufficiency as circumstances require. The executive authorities usually retain control over their general economic policy.

What should be stressed here is that they are unsuitable for regional development programmes since they lack cohesion and co-ordination at the regional level. The fact that each one receives instructions from a head office situated outside the area hampers and slows down its work, and the high-ranking officials who formulate policy have no knowledge of local conditions or the necessary daily contact with them. In the United States, an attempt has been made to remedy this situation by means of inter-office agreements at the regional level, but practical results have not been encouraging so far.

(ii) State enterprises. State enterprises are more decentralized. They usually consist of autonomous bodies which have been transformed into State enterprises by the acquisition of an even greater degree of independence.

^{7/} See the list of the South American organizations in Cano, op. cit., pp. 98-135.

The concept of the State enterprise does not consist in the attainment of greater independence only, but derives also from its particular internal structure and modus operandi, which resemble those of private enterprises and are far removed from the supervision typical of the usual organization of an office.^{8/}

The field of action of a State enterprise may cover the whole country as in the case of the Argentine Agua y Energía Eléctrica. When this is so, the enterprises fall within the classification under consideration here. There are also State enterprises whose activities are circumscribed to a specific zone.

Autonomous State enterprises suffer from the same drawbacks as those described in the previous paragraph with regard to autonomous regional bodies.

It should be added that the type of State enterprise that is under departmental (or ministerial) authority, i.e. which is responsible to or connected with one ministry, is usually less efficient than that under inter-departmental administration;^{9/} in the latter case, the board of directors includes representatives of the various ministries directly or indirectly concerned with the activities of the enterprise, and this introduces an element of co-ordination that is lacking in the case of the former.

(b) Offices with functional-territorial jurisdiction

It has already been stated that, even though municipalities belong to this kind of institutional structure, they have been excluded from this study since they have a different organization and raison d'être.

This category also includes some organizations which have functional-territorial autonomy but are single-purpose only. For instance, Rione was established in Uruguay^{10/} for the study, projection and construction

^{8/} ST/TAA/M/7, pp. 13, 16 and 29.

^{9/} E/CN.11/I&T/103, p. 12.

^{10/} Usinas y Teléfonos del Estado (UTE), Aprovechamiento Hidroeléctrico del Río Negro - Leyes y decretos, Montevideo, 1950, Acts 9786 and 11407.

of hydroelectric works at Rincón del Bonete, on the River Negro. This office was functional (limited to the production of hydroelectricity) and territorial (confined to the district of Rincón del Bonete) and had a single purpose, since it was not intended to promote the integrated development of the region or to attain any other objective.

This is also the case with respect to the Australian Snowy Mountains Hydroelectric Authority,^{11/} and the St. Lawrence Seaway Corporation, the Port of New York Authority, and the Delaware River Port Authority, etc. in the United States.

There are two kinds of organizations of the type under consideration: autonomous regional multi-purpose agencies and "districts"; the latter, which are known by this name in the United States but have different titles in other countries, will be studied later.

In general, the disadvantage of such organizations is that they have no say in cabinet meetings and are therefore unable to take part in the formulation of national programmes or to present their own problems in this respect. On the other hand, one of their attributes, which may be deemed an advantage, is that their long-term programmes are approved by Congress on an over-all basis, which frees them from what would otherwise be an annual dependence on the decision of Congress which, in the case of ordinary autonomous bodies, often paralyses or slows down their activities.^{12/}

In several countries (the United States, Argentina, etc.), it was found necessary to standardize the legislation for this type of organization after a few had been established separately. The United States Government Corporation Control Act^{13/} has attempted to standardize their accounting procedures and has made it obligatory for them to draw-up a commercial-type budget (section 102). The privileges of the TVA have been left intact (section 104) since, although its accounts have to be

^{11/} Proceedings of the regional technical conference on water resources development in Asia and the Far East, Flood control series N° 9, op. cit., p. 51.

^{12/} Roscoe Martin, op. cit., p. 27.

^{13/} Public Law 248 (79th Congress) of 6 December 1945.

looked over by the General Accounting Office, it is allowed to maintain them according to its own Statutes rather than the less flexible regulations of the latter.

(i) Multi-purpose regional autonomous bodies. The TVA^{14/} in the United States is an example of this type of organization (and has served as a model for the others), as well as the DVC in India, the CVC in Colombia, the Corporación del Santa in Peru, the Gal Oya Development Board in Ceylon and the Comissao do Vale de São Francisco in Brazil.

All these are "public corporations". In the Anglo-Saxon countries, this term is understood to mean an official organization which has its own political and juridical personality (in public and private law), as distinct from that of the Government as a whole, autonomy in its internal organization and, to a certain extent, in its external activities, and its own property. It may also appear in court on its own behalf, and has rights of succession and of using its own seal; the latter is merely a formal right but is invariably included in all instruments creating organizations of this kind.^{15/} Other details concerning the scope of their functions vary from one case to the other.

The following characteristics have been mentioned as those of the ideal regional development organization: ^{16/}

- (a) It should be semi-autonomous, of the "quasi-corporate" type;
- (b) The central Government should direct and supervise high policy and over-all programme aims;
- (c) It should maintain a proper balance among national and regional interests and purposes when establishing its objectives and guiding policies;
- (d) A good balance should be achieved between centralized national policy control and decentralized regional administration of programming;

^{14/} For the significance of these abbreviations, see the Annex.

^{15/} Roscoe Martin, op. cit., p. 26 (chapter by Joseph Swidler); Finer, op. cit., p. 113.

^{16/} Roy Bessey, "The unified water resources development plan", Proceedings of the regional technical conference on water resources development in Asia and the Far East, Flood control series N° 9, op. cit., p. 448 and C.S. Parthasarathy, "Organizational set-up for execution of water resources development", op. cit., p. 430. See also E/CN.12/I&T/103, p.15.

- (e) All main offices should be situated in the region;
- (f) The organization should have a small, compact board of directors responsible for general policy, programme, operations and public relations control, although all operations should be in the hands of a single responsible general manager;
- (g) Technical and advisory committees should be set up in which official organizations and private local interests could participate;
- (h) The co-operation of suitable experts and of a good group of specialists in regional programming should be obtained.

It has also been stated that an agency of this type should be created only after a project has been studied in sufficient detail and a sound approximate estimate of its cost made. This opinion coincides with an observation by the United Nations Panel of Experts,^{17/} underlining the need for changing to another kind of administrative organization once the programming stage had been superseded by that of execution. However, according to TVA experts, this should be only a "reorganization" instead of a complete change, since they consider it highly advisable that the successive stages of programming, projecting, construction and operation should be in the hands of one organization in order to ensure continuity and uniformity of ideas between the concept and its execution. Hence it might be possible to begin with a small programming organization which could be enlarged and adapted in due course.

It is also considered essential that parliament should give its prior blanket approval to the programmes and that all investment should be authorized in toto beforehand, in order to forestall subsequent interventions or delays in the executive phase.^{18/}

The faculties granted to agencies of this kind should be defined and limited both functionally and territorially. As regards the first aspect, the agencies will be able to undertake only such duties as have been expressly assigned to them, and all other matters germane to official activity

^{17/} E/3066, p. 46.

^{18/} Ibid., p. 45; Parthasarathy, op. cit., p. 431 in fine.

/(supervisory and

(supervisory and executive) will devolve upon the usual organs of the administration. Even questions that are recognized to be within their competence will be dealt with as provided for by general legislation, unless otherwise authorized. These agencies are not "super-States",^{19/} but simply single bodies in which a number of clearly defined official functions have been grouped instead of being divided among various offices as is customary, with the aim of unifying and co-ordinating activities in order to achieve the specific objective of regional development. Thus, the following official activities usually remain outside the competence of such bodies (even though they may be within its sphere of action): the administration of justice, security police, defence, education, public health and political government, to name only the most important. Territorial jurisdiction is delimited in order to mark out the zone in which the regional body may exercise its powers, which are also functionally limited. It is not intended in so doing to establish the omnipotence of the agency within its own jurisdiction to the exclusion of all other forms of government, but merely to indicate that it will have no powers outside the boundary line.

The main principles on which an organization of this kind is based will be systematically described below, in order to indicate their general tenor:

1. Functional jurisdiction: powers. The Gal Oya Development Board in Ceylon is responsible for water and electric development, afforestation, anti-erosion measures, public health, the control of animal and plant diseases, agriculture, industry and cultural progress. It has jurisdiction over two zones: one that is developed and includes pre-existing towns, and the other, under-developed. In the latter, the Board acts on behalf of various official organizations which have delegated their powers to it (State land and electricity offices), and also wields authority in its own right. In the developed zone, it merely plans and co-ordinates.

^{19/} Lawrence Durisch, "TVA, state and local government", in Roscoe Martin, op. cit., p. 242.

The Corporación del Cauca (Colombia) is intended to produce and co-ordinate private electricity supplies, to organize flood control, irrigation, drainage, anti-pollution measures, soil conservation and reforestation, State-owned forests, communications and transport; to regulate municipal and industrial uses of water and to safeguard and develop the exploitation of mineral resources and wild fauna and flora.

The Corporación del Santa (Peru) develops and exploits natural resources in the river basin bearing the same name, and the mineral and industrial riches of other basins which have to use the port of Chimbote. The Corporación is also responsible for constructing and operating public works in the same areas and exploiting mineral and industrial resources in others related to its own zones. Lastly, it administers the public services that the Government has assigned to it.

The Comisión del Papaloapán (Mexico) has to build defence works, look after irrigation, energy and drinking water supplies, sewage, and transport and communications (including railways and telephones) and deal with urbanization problems.

The Cassa per il Mezzogiorno (Italy) is responsible for agricultural development, irrigation, flood control, anti-erosion measures, roads, railways, the tourist industry, and agricultural industries and administers the private credits granted for these purposes.

The functions of the TVA will be described in chapter II.

The Comissão do Vale do São Francisco (Brazil), is in charge of water, industrial and agricultural development in the valley of that name, as well as of transport, immigration and settlement, social welfare, education, public health and the utilization of natural resources. In order to carry out these duties, it may either act itself or promote and co-ordinate the action of other official organizations (federal or State) or private enterprises.

The DVC (India) is responsible for the construction and operation of irrigation works, and for flood control, hydroelectricity and navigation. It also deals with problems of afforestation, erosion, public health and agricultural and industrial development in its own area. It is important to note how its powers have been defined in relation to those of local

/Governments: (a)

Governments: (a) with respect to irrigation, it has to hand over responsibility to them for distributing the whole water supply; (b) as regards community and industrial supplies, it may sell water to the users directly; (c) hydroelectric energy cannot be sold at less than 30 000 volts (which means that retail supplies are in the hands of local Governments), while the DVC has a monopoly of the production after a minimum level of 10 000 kW installed capacity and of distribution and sales over the 30 000 volt limit.

2. Territorial jurisdiction. Finer rightly points out that any enlargement of the area of a regional development project depends on the nature of the resource to be developed, since it may be less than a square mile (a mine) or cover a whole continent (energy), and that existing divisions in the world (inter- or intra-national) do not by themselves constitute self-sufficient economic units.^{20/}

The legislation examined indicates a great variety of ways of delimiting the territorial zone of jurisdiction. Thus, the competence of the Delaware River Port Authority extends over an area of 35 miles around Camden; that of the Potomac Commission, over the entire river basin and tributaries; the Ohio Commission over all the territory of the eight States whose waters flow into the river Ohio or into its tributaries. The area of the Gal Oya Board is designated by law, which specifies the geographical boundaries but provides for their extension by ministerial decision. The Board is also authorized to have offices and warehouses outside its zone.

The DVC's zone of operations is also fixed by the agreement which created it, but its limits may be extended beyond the valley by official decision.

In the Valle del Cauca, the territorial limits of jurisdiction have been fixed by the Government upon the recommendations of the CVC's steering council.

In Argentina, the river Bermejo Treaty (signed on 31 January 1958 and awaiting ratification) fixed a zone of influence stretching 30 kilometres on each bank of the artificial canals to be constructed.

^{20/} Finer, op. cit., p. 221.

/If this

If this kind of definition is omitted, a regional agency's powers would cover the whole territory of the political body which created it, i.e., they would extend outside the valley or zone that it is intended to develop.

3. Composition and appointment of authorities. All studies on this subject agree that it is an advantage for a regional body to have two superior authorities: (a) a directorate or board, composed of a few people, which would be primarily concerned with policy-making, i.e., it would take all essential decisions as to the agency's politico-economic activities and supervise its work; (b) a general executive manager who would be responsible for running the agency.^{21/} Even the system of a board of directors consisting of the heads of the departments into which the agency is divided (functional boards) is considered inadvisable, since these heads of departments cannot form a picture of the work as a whole and each might be tempted to give priority to the work of his own department.

K. K. Sinha, in his examination of the DVC's organization, criticises the fact that (1) the financial adviser, representing the central Government, may overrule and thus restrict the authority of the board of directors by means of his implicit right of veto; (2) the secretary of the board is elected not by the board but by the Government; (c) participating Governments have, in practice, reduced the autonomy legally conferred upon the DVC; and (4) there is no general executive manager (the Bhakra Board is praised for having one).^{22/}

In relation to the Gal Oya Board, Mr. Sinha disapproves of the fact that one of the directors represents the Ministry of Finance on the grounds that "departmental (ministerial) pull" continues to affect the regional body. As this director may at any time be replaced by his Minister, he cannot have a feeling of solidarity with the Board.

^{21/} John Oliver, "Administrative foundation", in Roscoe Martin, op. cit., p. 42; C. Parthasarathy, op. cit., p. 430; Sinha, ibid., p. 438.

^{22/} K. K. Sinha, op. cit., p. 436.

The ways in which the authorities may be nominated vary considerably according to the constitutional organization of each State. Thus, the three directors of the TVA are appointed by the President of the United States, with the approval of the Senate, for a term of nine years. The Cauca Council has seven members who serve for three years each, four of whom are nominated by the President of the Republic, while the other three are ex officio the Governors of the provinces concerned. There is also an executive director, nominated by the council, and a senior administrative chief, who may issue resolutions that create or modify the rights of each member. The director may speak but not vote in the council.

The Comissão do Vale do São Francisco has three directors who are appointed by the President.

Since programming and construction are lengthy processes, it is better to make appointments for long periods, as in the TVA, since frequent changes of directors are apt to impair the continuity of the work. It may be pointed out in this connexion that the President of the United States is elected for four years, while the directors of the TVA serve for nine years, i.e. more than twice the presidential term of office.^{23/}

4. Control of the regional body by the Government that established it

This control, which is indispensable in a democratic régime, may be exercised in many ways.

One is control by the people, i.e., by users and consumers who form associations for this purpose. The efficacy of this method has recently been successfully demonstrated, chiefly in the United Kingdom with respect to water and electricity supplies.^{24/}

Another method is that of parliamentary control. The way in which this should be applied depends on the traditions and customs of the parliament concerned. It has already been pointed out that parliament

^{23/} ST/TAA/M/7, p. 36.

^{24/} K. K. Sinha, op. cit., p. 435.

should study and give its blanket approval to programmes and investments. This would prevent regional offices from having to seek its approval annually and, while waiting for the necessary authorization which is often held up, to have their work impeded or even paralyzed. In the case of the TVA, the United States Congress has approved aggregate sums for its projects, thereby departing from its usual custom of making an itemized study of projected expenditure. A similar system has been adopted for the St. Lawrence Seaway Corporation, which was authorized to invest up to a total of 105 million dollars, 10 per cent to be spent in the first year and 40 per cent in the remainder.

The programmes of the Comissão do Vale do São Francisco have to be approved by the Brazilian Congress.

Control by a higher administrative authority, with which the regional body is connected and to which it is in a certain degree responsible, also admits of many gradations. The Comissão do Vale do São Francisco, for instance, which has autonomy as regards its property, may not nominate its own employees who are appointed by the President of the Republic. This power is vested in the directors in nearly all other regional organizations. In Ceylon, the Gal Oya Board must have governmental consent before appointing its foreign employees.

The Government of India indicates the policy to be followed by the DVC and gives instructions to its board of directors. The Governments represented on the Bhakra Board have to ratify all the Board's fundamental decisions.

The Gal Oya Board is also bound to comply with ministerial instructions.

The programmes of the Corporación del Cauca must be approved by the National Planning Board (Consejo Nacional de Planeación).

The Papaloapán and Tepalcatepec commissions in Mexico have to submit their programmes, wage-scales and other matters for presidential approval.

As regards auditing, the General Accounting Office in the United States audits the accounts of the TVA and other public corporations, but one of the amendments to the Statute of the TVA provides that it may use its own auditing methods in common with private companies instead of being obliged

/to adopt

to adopt the official system of the Accounting Office.^{25/}

The Tribunal Federal do Contas do Brasil audits the accounts of the Comissão do Vale do São Francisco which is responsible to the Federal Government only. The same occurs in the case of the Gal Oya Board. A State official audits the accounts of the Cauca Commission; he is nominated by the President who also fixes his salary though it is paid by the Commission, as are those of his assistants. The Corporación Peruana del Santa is obliged to send its balance-sheets to the Banks Department (Superintendencia de Bancos) and to the Government, but if these have made no comment within a certain time, it is taken to indicate tacit approval of the accounts. The auditing is done by a private firm.

The Canadian River Commission (United States) is not subject to the accounting laws of its member States, and its auditing has to be carried out by a qualified independent public auditor.^{26/}

Each of the Governments concerned maintains separate control over the accounts of other inters-State commissions.^{27/}

In Argentina, the accounts of the OIANA are checked by the official auditors of the province of Tucumán, which is one of the participants in the organization and where the head office is situated.^{28/} The books of the OIACSE are initiated by the general auditors of the two constituent provinces, each of whom may make a separate examination.^{29/}

5. Internal administrative organization. An expert of the United Nations Technical Assistance Administration^{30/} who has been studying this problem in particular, has recommended that all regional development organizations concerned primarily with the utilization of water resources

^{25/} Finer, op. cit., p. 152.

^{26/} 66 Stat. 74, sec. IX (b).

^{27/} New England, Potomac, Breaks and Palisades.

^{28/} Internal regulations, article 54.

^{29/} Internal regulations, articles 10 and 14.

^{30/} Roy Bessey, "The unified water resources development plan", Proceedings of the regional technical conference on water resources development in Asia and the Far East, op. cit., p. 448.

should have departments or divisions dealing specifically with: (a) the direct handling (administrative, planning, budgeting, financing and operation) of activities such as the utilization of a river and its waters, the production of hydroelectricity and the preparation of land for cultivation; (b) co-ordination of the different programmes related to the exploitation of a river basin (land, forest, pasture, crops, etc.); (c) the co-operative administration of parallel subsidiary programmes for minerals, raw materials and the development of basic industries; (d) the close co-ordination of physical planning with the other economic and social programmes which concern regional communities, families and even individuals, thereby obtaining the maximum yield from basic physical development.

Figures II, III, IV and V present in diagrammatic form the internal systems of organization of the TVA, the CVC, the DVC and the Comissão do Vale do São Francisco, respectively. The TVA and CVC are under the statutory obligation to model their internal organization on that of a private enterprise.

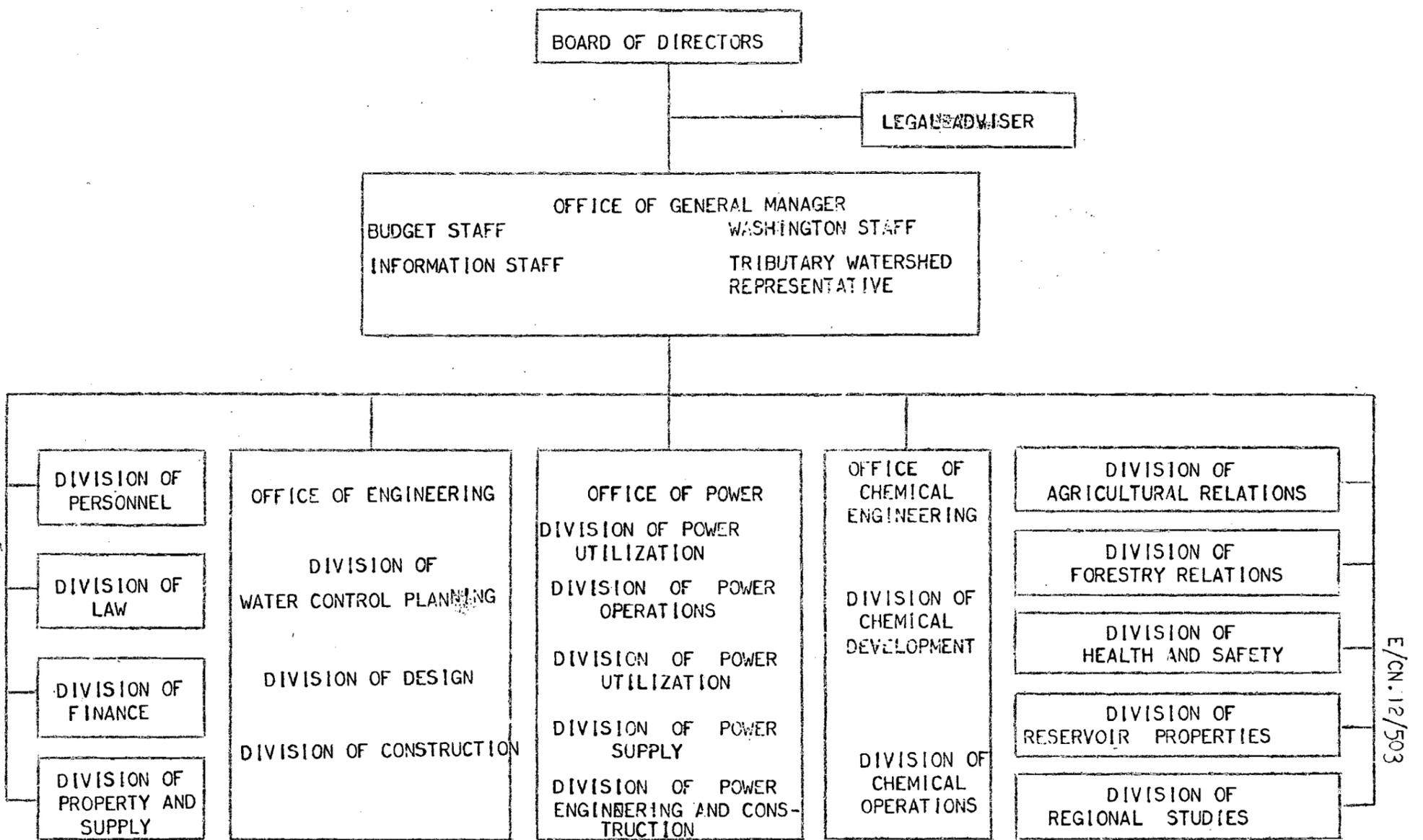
6. Relations with the local authorities and public. TVA experts accord the highest importance to this aspect in order to ensure the efficient operation of regional agencies which is largely dependent on the goodwill and spirit of co-operation displayed by the public.^{31/} The TVA has laid special emphasis on the payments in lieu of taxes which it makes to local Governments.

It is also considered essential that the directors of a regional agency should reside in the area under their jurisdiction. This is expressly stipulated in the act that established the TVA. The CVC has its head office at Cali, which is the centre of its zone of action. The act creating the St. Lawrence Seaway Corporation states (sec. 4, ch. 6) that for judicial purposes the Corporation will be considered as adjacent to the judicial district in the northern area of New York State. The Corporación del Santa, on the other hand, is situated in Lima instead of in its own area, while the Argentine CIACSE is in Frías, which is the site of its activities.

^{31/} Ackerman and Lewry, Proceedings of the regional technical conference on water resources development in Asia and the Far East, op. cit., p. 444; Clapp, idem., p. 73. See also ST/TAA/M/7, p. 87.

/In numerous

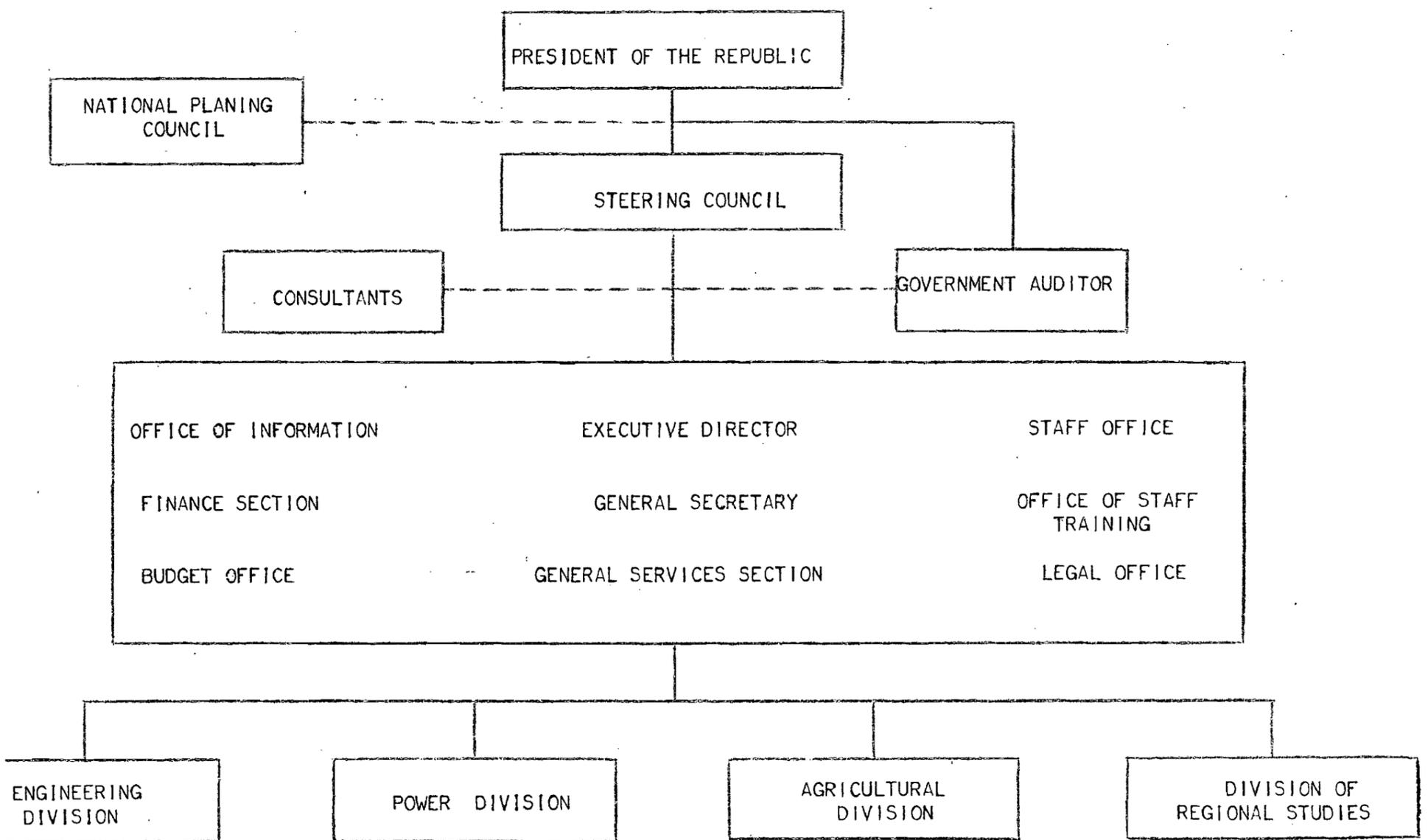
FIGURE 11
 ORGANIZATION OF "TENNESSEE VALLEY AUTHORITY"



SOURCE : ROSCOE MARTIN, OP. CIT., P. 37

E/CN.12/503

FIGURE III
 ORGANIZATION OF THE "CORPORACION DEL VALLE DEL CAUCA"



SOURCE : CVC.A REGIONAL PROGRAM, CALI, 1957, P.7.

CVC/1957/7

FIGURE IV
 ORGANIZATION OF THE DAMODAR VALLEY CORPORATION

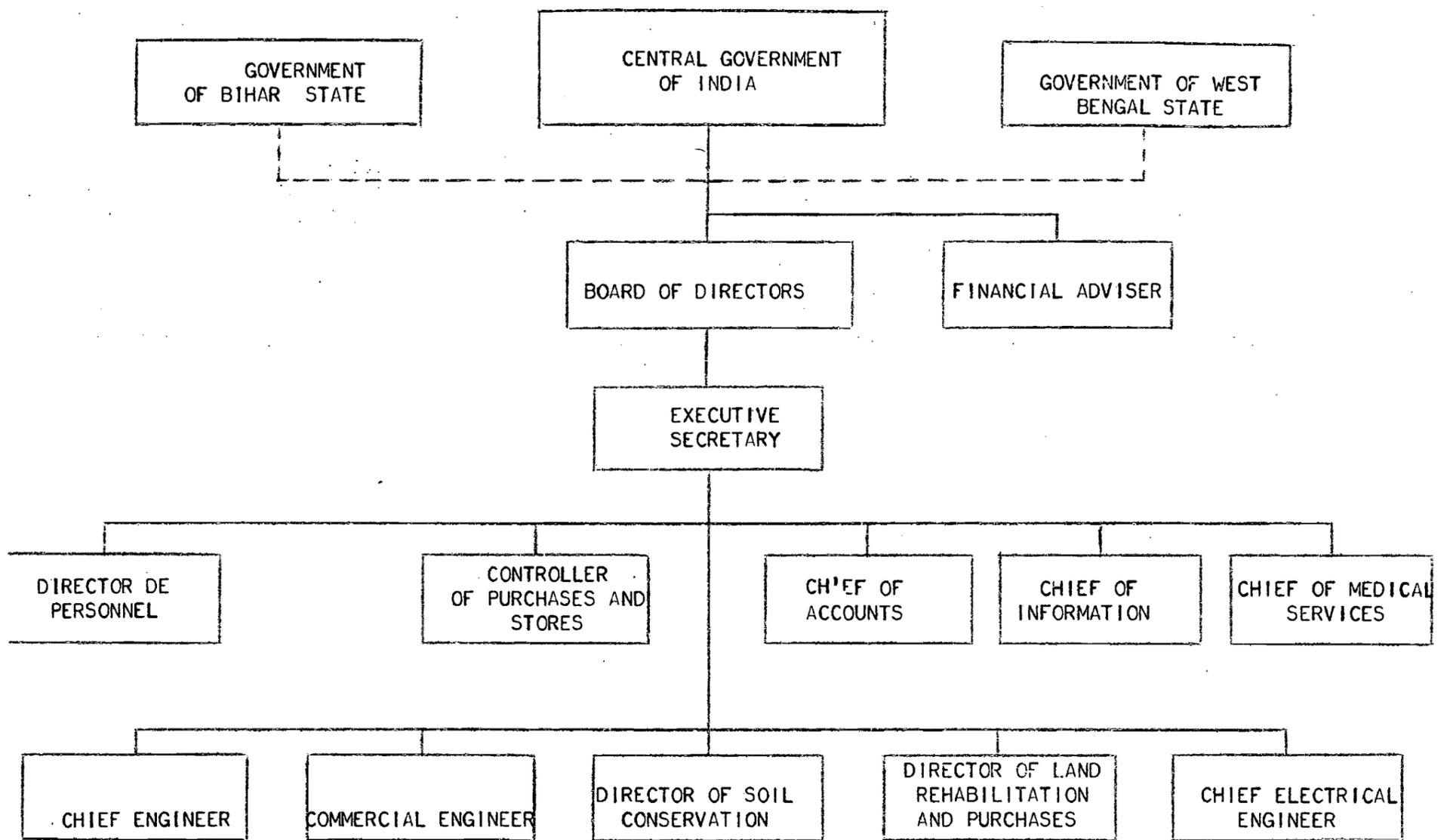
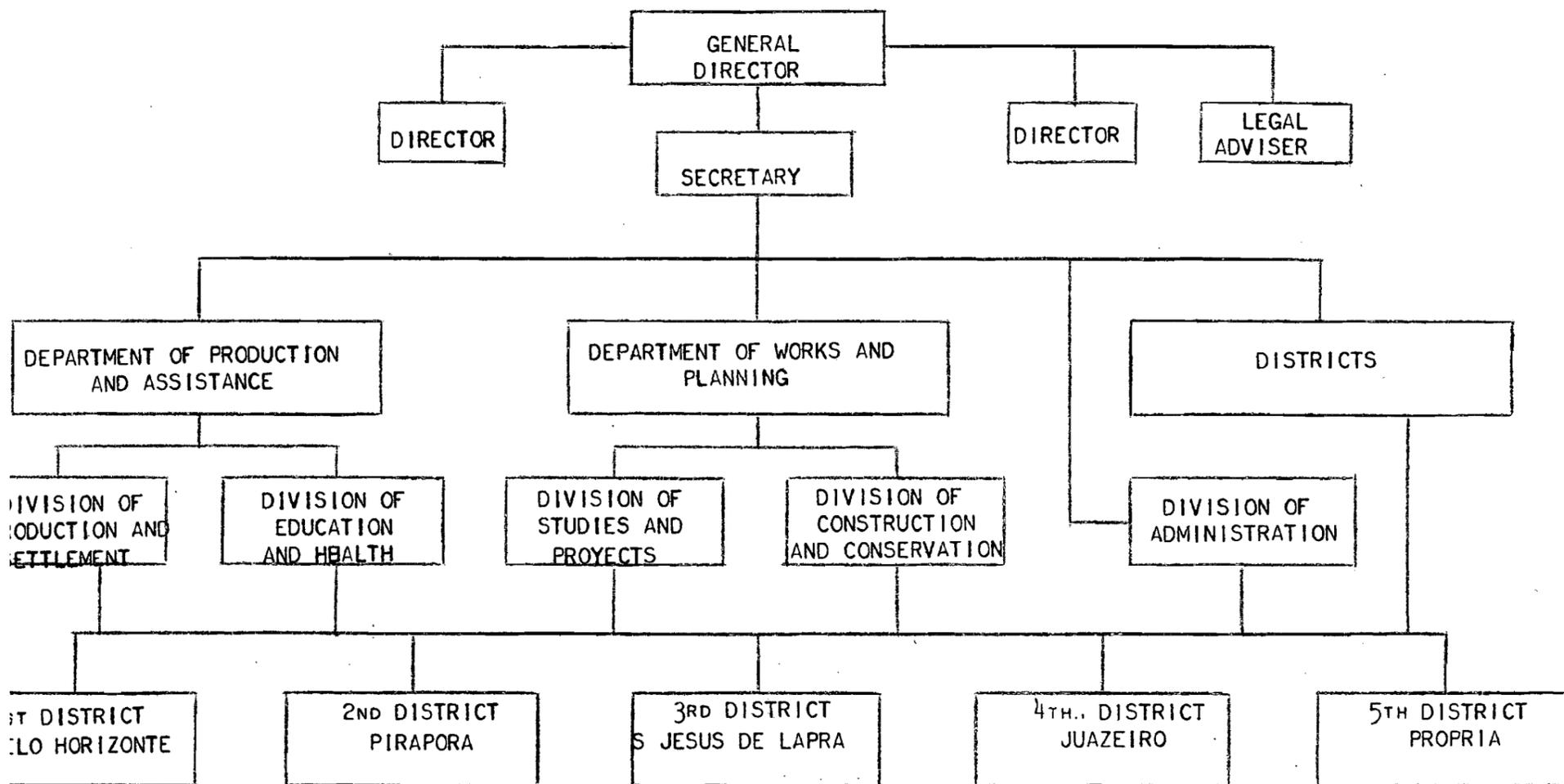


FIGURE V
ORGANIZATION OF THE "COMISSAO DO VALE DO SAO FRANCISCO"



In numerous cases (e.g. the Gulf States Marines Fisheries Compact, DVC, etc.), provision has been made for the appointment of advisory committees consisting of representatives of private local interests. ^{32/}

7. Guiding principles for their activities. Various instruments that created regional bodies have laid down their basic principles of policy. For instance, the Delaware River Port Authority must uphold the United States principle of free competitive private enterprise (section IV). The CVC has to act as an example and training school for personnel who will subsequently organize other agencies of the same kind; it must also guarantee the profitability of its investment, which rules out the use of capital for development or non-recoverable expenditure, and stimulates private enterprise. The Bear River Commission is obliged to adopt the principle of integrated programming without regard to political limits (section VI). The Costilla Creek agreement (United States) embodies a similar principle (section I).

The River Bermejo treaty (Argentina) which is awaiting ratification, specifies the order of priority for future uses of water: (a) navigation, (b) community supplies, (c) rural drinking water, (d) industrial uses, and (e) irrigation.

8. Staff recruitment and training. One of the biggest problems confronting all regional development offices is the scarcity or lack of competent technical personnel at all levels from senior officials to specialized workers. This is, of course, a problem that is bound to crop up in the kind of organization that always operates in under-developed zones. It would be worth while for steps to be taken to deal with it during the early stages of the agencies' establishment. Robock says ^{33/} that such steps were found to be a pre-requisite during the preliminary stage of the work on the development of north-east Brazil. The DVC's Board of Directors has stressed its importance in its reports. The CVC is expressly authorized to sign agreements with educational bodies for

^{32/} ST/TAA/M/7, p. 85.

^{33/} Stefan Robock, op. cit., p. 22.

/this purpose.

this purpose. The TVA has already done so, particularly with the local universities (Alabama and Tennessee), and has also made direct arrangements with or subsidized State Government offices in its region responsible for public education. The Corporación del Santa maintains a technical school to train workers for its projects.

9. Privileges. Many of these regional bodies enjoy privileges such as monopolies or tax exemptions. The DVC has the electricity monopolies already mentioned, but is liable to taxation like any private enterprise. The TVA, on the other hand, is being strongly opposed by private electricity companies, which accuse it of using the taxpayers' money, paying little or no interest, and being exempt from taxes, all of which gives it an unfair advantage as regards rates over its rivals in the private sector. Many regional agencies may establish rates or taxes and fix and charge a tariff for their services.

In general, they have the right to expropriate real estate or exercise servitudes of aqueductus or electroductus, after due indemnization.

(ii) "Districts".^{34/} The other form of decentralized functional-territorial administration that will be considered here is that of the "districts" for irrigation, drainage or conservation (United States) or "channel authorities" (Mendoza, Argentina).

This type of organization appears in a variety of forms, only some of which are relevant here. Frank Adams summarizes them in this way: (a) irrigation, drainage or land improvement districts (including super-districts of "comarca" or county size formed by a group of smaller districts); (b) co-operatives or mutual-aid societies for irrigation purposes, which are non-profit-making and may or may not have juridical personality; and (c) irrigation societies for commercial purposes.

^{34/} Frank Adams, Community organization for irrigation in the United States, FAO development papers N° 1, Rome, 1953; Wells A. Hutchins, Organization and operation of co-operative irrigation companies, Farm Credit Administration, Washington, 1936; United States Department of Agriculture, Mutual irrigation companies, and Commercial irrigation companies, Washington, 1929 and 1930; Guillermo J. Cano, op. cit., pp. 141 and 115.

The first of these includes the channel authorities that are to be found in various provinces of Argentina (Mendoza, Salta, etc.); their statutes have force of law and they are endowed with their own powers by the State Governments. They are thus in fact decentralized official organizations. They may prescribe and levy taxes, draw up regulations and exercise jurisdictional functions among their members. The directors are elected by the users. It is all-important that there should be a close connexion between this type of agency and regional development organizations as regards programmes for the utilization of water resources, since the former should take charge of water distribution for irrigation or drinking purposes, hydroelectricity supply and the maintenance and management of secondary aqueducts.

The other two types described by Adams (co-operatives and commercial societies), which are private companies with governmental powers, fit more appropriately into the last category of companies (3 (d)).

These districts and channel authorities are "functionally" restricted to the construction and administration of irrigation and drainage systems or related activities, and "territorially" circumscribed to the zone served by a canal or irrigation system. They are not of course intended to promote integrated development although some are multi-purpose.

In the United States, the provisions creating "districts" have force of law. A salient feature of these districts is that participation in them may be compulsory even though certain individuals are opposed to it, and that such participation involves the contribution of funds for its operation together with the right to share in the administration and to enjoy the benefits it provides. Thus, for instance, landowners who are interested in draining a certain region may persuade the competent authority to form a "drainage district" in it; if this is done, all the landowners in the zone - including those who oppose such an initiative - will be obliged to contribute financially to the district and to carry out the necessary work, provided that the majority agree that the work should be done.

These districts may be formed for the most varied purposes, such the construction and operation of irrigation systems - with surface or underground waters -, the drainage of waterlogged land, and the preparation of
/fallowland for

fallow land for cultivation, etc.

In order to organize the Port of New York into a body of this kind, a "port district" was created by law. This means that all owners of real estate within the new district have to pay a certain sum for improvements, which was intended to compensate for the rise in the value of their property and other benefits accruing to them as a result of the operation of the port. In order to organize the Ohio River Valley Sanitation Commission, a "district" was set up with the same results, which moreover places all those living in the Commission's zone of influence under its jurisdiction in so far as its specific field of action is concerned. "Conservation districts", such as that of the Inter-State Commission for the Potomac river basin, have also been established to combat water pollution.

This type of administrative organization may also be put to other purposes. It may, for instance, be used for the formation of districts to deal with agricultural plagues frosts and hail. These activities require the co-operation of all the inhabitants of the region in question if the cost of the work is to be reduced and its efficacy guaranteed. Nevertheless, the recalcitrant attitude of certain landowners, and, from time to time, the opposition or abstention of one of them, frustrate the efforts of the others, for example, with regard to drainage or anti-fruit-pest campaigns. Thus the agricultural and industrial development which may be expected of every integrated project for the development of a river basin may require this type of organization in order to supplement on the spot the general work of the regional body. Moreover, without an additional effort of this kind, the regional agency would be forced to curtail some of its activities.

3. State companies

In order to carry out its industrial or commercial activities, the State normally adopts the form of a "company", i.e., the type of administrative and juridical organization of a private enterprise. It also adopts it for public utilities, as for instance the Empresa Nacional de Electricidad, S. A. (ENDESA) in Chile, the Companhia Hidroelétrica de São Francisco in Brazil and so forth.

/The following

The following are some of the reasons which have been given for the creation of public enterprises:^{35/} lack of private capital, the prevalence of the principle of State control over natural resources and the assumption by the Government of control over large bankrupt private enterprises which might create a social problem if they were to close down entirely.

The fields in which the State most frequently intervenes are the development of water and energy resources, national transport services and certain large-scale activities of a monopolistic nature such as the iron and steel industry.

State enterprises have already been studied, though only those which are entirely under State ownership, or, to be more precise, under the control of a Government office. They are "enterprises" rather than Government "companies", since a "company" with only one partner is an impossibility. All companies require at least two partners or owners. What will be discussed here are the State "companies", in other words, organizations whose property is owned by and administration divided among more than one State office at the same or at different levels.

(a) Among officials bodies

The Corporación del Valle del Cauca (CVC) belongs to this category. Although it was organized by the federal Government alone, the governors of the three provinces concerned (known as departments in Colombia) are ex officio members of the board of directors. The assets which are given to it by other public bodies (particularly local Governments) confer upon the donors (article 18 of the Statutes) the right to recover such assets upon the liquidation of the Corporación. For this reason, the property of the Corporación is held in co-ownership by the different contributors but there is no private participation.

(b) Between one official body and private persons (joint company)^{36/}

The SOMISA in Argentina, which consists of the Department of Military Manufactures (Dirección General de Fabricaciones Militares) and various private iron and steel companies, belongs to this type. As only one official

^{35/} E/CN.11/I&T/103, p. 6.

^{36/} ST/TAA/M/7, p. 21.

/body is

body is involved, the only problems of inter-relationship that can arise are those deriving from relations between the Government and private persons. In the United States, organizations of this kind come under the Government Corporation Control Act of 1945 (section 201).

(c) Among several official bodies and private persons or companies (joint company)

This type poses the dual problem of relations among the official bodies themselves and between them and private persons or companies.

ENDESA in Chile is a clear example of this kind, since its shareholders consist of the Development Corporation (Corporación de Fomento de la Producción), which is an autonomous Government body, ten municipalities, three semi-public companies and seven private enterprises, although the last mentioned hold no more than 0.1 per cent of the social capital. The ENDESA has been set up in the form of a joint stock company and is governed by the Commercial Code (Código de Comercio) without any amendment and enjoys no special privilege.

Brazil has the Companhia Hidroelétrica do São Francisco^{37/} which was organized by the federal Government for the development of energy production on a stretch of the São Francisco river. Its stock is in two series. The A series (200 million cruzeiros' worth of ordinary shares) was subscribed entirely by the federal Government, which may sell up to 49 per cent of the total to other State agencies, preferably pension funds. The B series consists of preferential shares which do not entitle the holders to vote but pay a special minimum dividend of 6 per cent. It also amounts to 200 million cruzeiros and was opened to public subscription. The four-man board of directors is elected by the assembly, at which only Government shareholders are allowed to vote, although, as stated before, 49 per cent of their stock may be held by autonomous bodies which can therefore take part in the election. There is also a fiscal council (syndicate) of three members likewise elected by the assembly. The representatives of each

^{37/} Legislative decree 8031 of 3 October 1945.

State (province) served from another council of a purely advisory nature. The chairman of the company, who is appointed by the President of the Republic, may overrule the decisions of the board of directors.

The French Compagnie Nationale du Rhône (CNR)^{38/} is the best and clearest example of this type of organization, and has achieved very successful results. An Act of 7 May 1921 provided that a company, whose statutes were to be established by law, would be given a concession for the multi-purpose development of the river Rhone, and that if such a company could not be formed, the river would be divided into six sections for which an equal number of concessions would be granted, although all the concessionaries were to act in co-operation. The main objectives of the act were the integrated development of the river for navigation, irrigation and electricity production. One very special feature was its provision that an area lying outside the river basin (the department of the Seine around Paris) should receive part of the energy produced and contribute to the financing of the projects, which was later duly carried out.

The company has registered capital of 2 400 million francs. It may issue up to 99 per cent of this amount in bonds that can be amortized in 50 years from the date on which the works financed by such bonds are completed. For this purpose, each issue relates to a specific phase of the work. The bonds give a rate of interest that is guaranteed by the State, and while this guarantee has to be provided, the shares pay no dividends. Otherwise, they pay a dividend 2 points higher than some Government bonds. Twenty per cent of any profits left over after the payment of basic dividends is distributed among the shareholders, and 80 per cent earmarked for reimbursing to the State, without interest, the

^{38/} Its statutes of 11 October 1932 were approved by the assembly on 27 May 1933. The decree of concession of 5 June 1934 approved the contract for the same purpose signed on 20 December 1933. Other documents relating to the CNR are the Public Administration Regulations of 13 January 1931, promulgated under the Act of 1921, and the General Load Log, appended to the decree of concession. See Compagnie Nationale du Rhône, Recueil des textes constitutifs, Lyon, 1951, and Rapport à l'Assemblée Générale Ordinaire du 25 juin 1957, Lyon, 1957.

sum paid by the latter as guaranteed interest on the bonds. When the CNR has wiped out its debt to the State, the profits over and above the basic dividend are divided in equal proportions among the shareholders and the Government. In 1957, a dividend of 6.539 per cent was paid.

Nine-tenths of the cost of pumping irrigation water and of irrigation channels are subsidized by the State without any reimbursement charge. Moreover, this use of energy has first priority. The CNR bears the cost of all other works.

The capital has been divided into four series of 600 million francs each:

- Series A: open to municipalities, official bodies and chambers of commerce in the Paris region (department of the Seine);
- Series B: open to municipalities, official bodies and chambers of commerce in the Rhône basin;
- Series C: subscribed by the French railways (State-run);
- Series D: subscribed almost entirely by Électricité de France (official), a branch company of the CNR and private user.

The shares are nominal and transferable only to persons included in the categories for the respective series.

A small number of shares in series D are held by the Société pour l'Aménagement du Rhône, which is affiliated to the CNR, and the bulk by Électricité de France. Series A has been entirely subscribed by the Government of the Seine department, i.e. by a local governmental body outside the Rhône basin. Series B, on the other hand, has been subscribed by more than 250 chambers of commerce and municipalities and by the Governments of departments in the Rhône basin. The chambers of commerce are private associations of businessmen and industrialists.

It has been legally decreed that two-thirds of the board of directors should consist of official representatives (from national, departmental and municipal Governments) and two-fifths of representatives from the central Government. Thus, out of a hypothetical total of 15 directors, 10 should represent official bodies and at least six the Government of France. According to the statutes, the board consists of nine members appointed to serve for six years, of whom five represent

/the French

the French Government and each of the other four is elected by the shareholders of each series meeting in partial assembly. The Chairman of the board is always a representative of the national Government.

The State delegates have the right to request at the assemblies that an item be reopened for discussion and that their observations be incorporated in the records. The representatives of the central Government in the board of directors may also ask for reconsideration of a question, and if the board insists on abiding by its original decision they have the right to demand a stay of execution for eight days until the Government has made a statement on the matter. If no such statement is made, the board may carry out its decision on its own responsibility.

Accounts are audited by a commission of six members (three nominated by the Minister of Finance, of whom one is the Chairman, and three by the Minister of Public Works) and a Government inspector acts as Rapporteur.

When 75 per cent of the capacity of a plant has been committed, the CNR is obliged to begin building a new one. All projects for different uses such as irrigation, electricity and navigation must be carried out along parallel lines on each of the six sections of the river (except projects for international rivers which require the prior conclusion of an international treaty).

The CNR has been granted the right to use the Rhône's waters and electricity potential according to requirements and provided that it complies with all the formalities (publicity, etc.) laid down in the water and electricity legislation in force, as would a private person. The concession may be withdrawn if the CNR fails to comply with the technical conditions which are required of it administratively (the maintenance of load logs).

The CNR may impose servitudes under ordinary law. Consumers who hold shares in each plant amounting to at least 1/500 of its value have first option on the energy supply and the right to receive a pro rata share on the basis of their holdings of securities up to a limit of 25 per cent of the plant's potential. This is known as "optional energy".

/The rate

The rate fixed for optional energy for shareholders in series A has to be equal to the cost of thermal energy produced in the Paris area (department of the Seine) where such shareholders must reside.

The rate charged for optional energy for shareholders in other areas (series B) must be equal to that of non-optional energy in the region and standard in every part of it (rates may be varied according to the time but not according to the amount of supply). Shareholders of series A and B who do not opt to receive energy are given a 3-per-cent bonus dividend.

The CNR is authorized to interest itself directly or indirectly in other companies or in industrial, commercial or financial operations related to its purposes.^{39/} By virtue of this, it has promoted the formation of or contributed capital to the following: (a) the Compagnie Nationale pour l'Aménagement de la Région du Bas Rhône et du Languedoc, which is a concessionary of irrigation and land reclamation works in the area of that name (the CNR holds 14 million of the 500 million francs that make up its capital); (b) the Compagnie Générale de Navigation Hautes Pyrénées-Lyon-Méditerranée, which operates the Rhône river fleet and to which boats have been supplied by the CNR; (c) the Société pour l'Aménagement du Rhône mentioned previously; and (d) the Groupement d'Etudes pour l'Expansion Economique du Sud-Est.

Concessionaries of electroducts holding concessions outside the competence of the CNR that buy a minimum of 500,000 francs' worth of shares in the latter, have priority as regards the transmission and distribution of optional energy.

During the first 20 years, electricity for irrigation purposes is given the advantage of an infinitesimally low rate (0.02 francs per kWh in 1934), which the consumer may use either for 4,000 consecutive hours (five and a half months) or permanently except for the four hours a day for which the CNR does not allow reduced rates. During these four hours and apart from the quota of 4,000 consecutive hours, ordinary

^{39/} See also ST/TAA/M/7, p. 27.

/rates are

rates are in force. After the first 20 years, the electricity rates for irrigation may not exceed half the average rate for other uses. The utilization of irrigation channels and pumping stations is managed by communities of farmers formed for this purpose.

Lastly, for illustrative purposes, it may be added that 2,250 million of the 12,300 million francs invested in 1956 came from the CNR's own income, 3,500 million were lent by the Economic and Social Development Fund, 2,650 million originated from a compulsory loan from the reserves of insurance companies and 3,900 million from medium-term credit operations backed by the State.

(d) Private persons only but with governmental powers

This type comprises the irrigation co-operatives and mutual-aid societies which exist in the United States, and were mentioned in connexion with irrigation and similar districts.

Analogous to these are the "channel associations" in Chile.^{40/}

The observation made earlier that a "district" is a type of administrative organization which must necessarily assist regional development bodies in river basin development projects is applicable to all such organizations.

4. Utilization of establishments or public works
through contracts with private companies

The United States Government has recently begun to use this system of decentralized public administration ^{41/} for operating its nuclear research and production plants, and a contract was signed for this purpose, between the Atomic Energy Commission and the General Electric and Du Pont companies. The Commission had to pay a fixed sum annually to the two companies and assume responsibility for all operational costs. The efficacy of the system has been questioned, since it is difficult to make it function efficiently. Moreover it is a source of worry to the Government, since, if one of the agreements has to be rescinded for non-fulfilment, the Government may find itself without trained personnel to continue running the plants directly.

^{40/} Cano, op.cit., p. 127.

^{41/} E/CN.11/I&T/103, p.17 and ST/TAA/M/7, p.23.

Chapter II

PROBLEMS OF JURISDICTION AMONG AUTHORITIES
AT DIFFERENT LEVELS IN THE SAME COUNTRY

As this study does not attempt to consider problems other than those relating to the administrative structure of water resources development at the regional level (by river basins), similar problems which are to be met with in several countries ^{1/} and which affect the whole of their territory, i.e., with national implications, are not touched upon.

This chapter deals with the problems that arise from the existence of internal political sub-divisions (States or provinces) in certain federal countries. This aspect has been thought worthy of special attention since it is one of the principal and most frequent problems besetting hydraulic development programmes in those countries.

This is not true of all federal countries. In Latin America, Brazil, Mexico and Venezuela labour under this difficulty but only slightly, since their constitutions give the central Government jurisdiction over most waters.

Table 2 outlines the different aspects from which the question has been tackled, and indicates the explanatory method to be adopted in this chapter.

Table 2

TYPES OF FEDERAL-PROVINCIAL CO-OPERATION FOR THE REGIONAL
DEVELOPMENT OF WATER RESOURCES IN FEDERAL COUNTRIES WHERE
WATER JURISDICTION IS DIVIDED AMONG AUTHORITIES
AT DIFFERENT LEVELS

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1. Federal action only with participation of provinces on an advisory basis
 2. Agreements among federal-provincial organizations
 3. Legal control of water rights and separate administrative procedure in each State
 4. Simultaneous or parallel legislation
 5. Inter-jurisdictional agreements, treaties or compacts
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^{1/} See the ECLA study on water resources in Ecuador which is being prepared. With regard to Argentina, see also the Advisory Commission on Hydro-electric Planning, op.cit., Buenos Aires, 1958, pp.92 and 106.

/Argentina is

Argentina is the sole country in Latin America with a federal organization, and the United States the only one as far as the rest of the continent is concerned. The case of countries outside the Western hemisphere which find themselves in a similar situation will also be discussed, since the solutions they have adopted may also be useful for Latin America.

Federalism and the institutional problems it creates are often unintelligible for those who are familiar only with the experience of countries organized under another form of government.

Federalism does not derive from written political constitutions but from historical and cultural traditions. It frequently takes the form of an emotional attitude against which considerations of convenience based on political techniques or administrative science are powerless. Apart from its historical origin, federalism is also based on geographical and physical factors. Therefore, instead of attempting to bypass or even suppress it, the easiest thing to do from a purely theoretical point of view may be to accept it as a fact and look for solutions which, far from ignoring it, take it into account.

With regard to the different solutions that have been reviewed in this chapter, the best and quickest results seem to have been produced by interjurisdictional agreements which set up the necessary organizations for developing river basins that fall within more than one political jurisdiction.^{2/} In several countries, this solution has only been reached after a long process of trial and error with other possibilities. Their experience may be useful to other countries which are facing the same problem by enabling them to eliminate much fruitless investigation.

Wherever direct agreements are still not feasible, the next best solution might be to resort to parallel legislation. Although this has less stability than an agreement, it may achieve the same results so long as the principle of concurrent legislation is maintained.

^{2/} Steele & Regan, op.cit., p.892, refer to a project of Senator Hannings of the United States with respect to the Missouri basin recommending the organization of an inter-ministerial federal programming commission to act in collaboration with a board set up by an inter-State compact.

1. Federal action only with the participation of
provinces on an advisory basis

The classic example is that of the Tennessee Valley Authority (TVA) which is administered by a board of three directors nominated by the President of the United States who are responsible to him rather than to a ministry (or its equivalent) and in which there is no State (provincial) participation. This organization has been strenuously opposed, among other reasons, for its invasion of State powers. Its supporters assert that it constitutes a new form of federal-State co-operation^{3/} and that the favourable attitude taken up towards it by the Governors of the States in which it operates is the best yardstick with which to form an opinion.^{4/} In accordance with one of the fundamental provisions in its Statute, the TVA acts in close co-operation with local Governments, although they take no direct part in its administration. Such co-operation assumes the following forms: (a) the TVA produces and sells energy on a wholesale basis only since local distribution and retail sales have been contractually ceded to municipalities and local co-operatives; (b) in lieu of taxes, it pays the State Governments sums considerably exceeding the revenue which the latter would otherwise have received from articles normally subject to State taxation but that, by virtue of the TVA Act, are exempt;^{5/} (c) it acts in close consultation with neighbourhood associations, professional organizations, trade associations and local universities thereby ensuring that all their members take an interest in it. In brief, the TVA is said to be responsible for developing the river, whereas the development of the valley depends on the co-operative efforts

3/ Clapp, op.cit., pp. 71 and 75.

4/ Ackerman & Lewry, Proceedings of the regional technical conference on water resources in Asia and the Far East, op.cit., p. 444. According to Roscoe Martin, op.cit., p. 242, the seven Governors alluded to do not consider the TVA to be a "super-State".

5/ Finer, op.cit., p. 145. According to section 145 of the TVA Act, 5 per cent of the gross income from sales of energy produced at the plants in Alabama and Tennessee is handed over to the State Governments concerned, plus 2.5 per cent of the proceeds from energy sales elsewhere.

of official bodies and local communities. The TVA's main activities are afforestation, electricity distribution, local flood control, regional social and economic research and the development of local valleys. They have led to an improvement in the economic status of the people and a considerable expansion in the activities of local Governments, which, far from restricting their field of action, have considerably widened it and simultaneously added to their income. One specific form of co-operation consists of loans for development purposes which the TVA makes (for example, to municipalities) to finance electricity grids.^{6/}

The Corporación del Cauca is also exclusively federal. Its board of directors consists of seven members (four being designated by the President of the Republic and the other three being ex officio Governors of the departments of Caldas, Cauca and Valle del Cauca who are also appointed by the President). Local Governments help to finance the Corporación, since, while the federal Government pays for the power station at Colima and its transmission line, provincial Governments contribute their revenue from territorial land taxes, improvement taxes and certain rates.^{7/}

The Comissão do Vale do São Francisco, which is also exclusively federal, is composed of representatives (without the right of vote) from the State Governments of Minas Gerais, Bahia, Pernambuco, Alagoas and Sergipe (Federal Act 541, article 13).

Bondholders that have contributed to the loan used to finance the Chambal Valley Project in India have the right to elect representatives with the right of vote to the control board in charge of the work.^{8/}

It has also been suggested that control boards composed of representatives of the Government and general public might be established in this type of organization,^{9/} but those who have studied the TVA set-up object

6/ K.K. Sinha, op.cit., p. 438.

7/ CVC-A regional program, op.cit., p. 21; Estatutos de la CVC, article 25.

8/ Proceedings of the regional technical conference on water resources development in Asia and the Far East, op.cit., p.434.

9/ Gunasekera, Proceedings of the regional technical conference on water resources development in Asia and the Far East, op.cit., p. 48.

/to such

to such an innovation unless the board is to be of a purely advisory nature. Nevertheless, advisory boards are considered to be advantageous, since the support of public opinion in the neighbourhood for a regional authority is believed to be an all-important factor in the success of a regional programme.^{10/}

In Argentina, the river Bermejo treaty (awaiting ratification) does not make clear line of demarcation in this field. According to the treaty, the agency which would build and manage the basic works would be exclusively federal as would be the funds for financing it. However, as regards irrigation, for example, the construction of secondary distribution channels and their administration would be in the hands of the provincial Governments. Similarly, hydroelectric plants and transmission lines, whether international or interprovincial, would be under federal jurisdiction, although local grids would be set up and operated by the provinces concerned.

2. Agreements among federal-provincial organizations

Those examined here are administrative agreements with no legal status. Agreements with force of law will be studied in section 5.

Shih ^{11/} points out that one type of interstate organization consists of agreements among agencies even though they may have no provision for Federal participation. An example of this kind is the Interstate Commission on the Delaware River Basin, which was established by agreement among the Departments of Public Health in the States of Delaware, New Jersey, New York and Pennsylvania. Its sole functions are those of programming and advising. It may also propose regulations for adoption, but each State makes its own legislation in this respect and is responsible for seeing that the laws are enforced.

In the United States, an agreement was concluded among federal organizations in 1954 and ratified by the President;^{12/} this made

^{10/} Finer, *op.cit.*, p.118.

^{11/} Shih, *op.cit.*, Vol. 2, p.1006.

^{12/} "Interagency agreement on co-ordination of water and related land resources activities", adopted on 26 May 1954 by Presidential Order N° 61874.

/provision for

provision for all federal organizations to co-ordinate their policies, programmes and activities in the field of water resources, and was endorsed by the Secretaries of State, Agriculture, Trade, Health and Defense and by the President of the Federal Electricity Commission. The agreement sets up a committee on which the organizations concerned must be represented by an official who is not lower than an Assistant Secretary in rank. In addition, chapter 6 provides for the establishment of local committees of the same types, with the optional participation of provincial Government representatives, who must act in co-ordination with the main committee. The latter is empowered to draw up the charters or statutes of the local committees and to approve their regulations. By virtue of the above-mentioned provisions, the following local committees have been organized (by river basins): (1) Missouri, (2) Columbia, (3) Pacific Southwest, (4) Arkansas-White Red and (5) New England-New York. These are programming and co-ordinating bodies only. The execution and administration of the projects is the responsibility of the organizations represented on the committees. Recommendations made by local Governments are not binding. The charter of the Columbia Basin Inter-agency Committee, for instance, grants representation, to the federal organizations already mentioned and to the States of Washington, Oregon, Idaho, Montana, Wyoming, Utah and Nevada, all of which form part of the Columbia river basin.^{13/} It states that the Governors of these States will be "invited" to participate, but that they may delegate their powers of representation. Other provincial bodies may be invited to form sub-committees or to attend Committee meetings. The Chairman of the Committee is elected by the federal members only. One of the aims of the Committee is to promote co-ordination of the federal and provincial organizations' activities at the regional level and to recommend to the States any changes in legislation or policy that might be required to co-ordinate and solve problems among the agencies.

^{13/} Adopted on 16 November 1954.

The efficacy of these organizations is praised by some ^{14/} and denied by others.^{15/} In any case, they are merely allowed to act as programming and co-ordinating bodies and never have any executive functions, which would have to be bestowed by formal inter-governmental agreements (treaties or compacts). The latter factor is precisely what leads to doubts as regards their efficiency, since their usefulness is limited to the different stages of programming and may not be extended to those of execution and administration - or they may simply be considered as preliminary steps towards formal legislative agreements.

3. Legal control of water rights and separate administrative procedure in each State

In some federal countries inter-State disputes have been referred to the courts for settlement. The latter may give a ruling only in so far as regulations are concerned, since their faculties are limited to distributing water to each State and its inhabitants and supervising this distribution, and they can neither establish organizations nor stipulate the administrative procedure for carrying out the regulations. However, they have proved an important source of progress, since, in putting an end to the disputes which impeded or disrupted the use of interprovincial water resources, they enabled such resources to be employed more extensively.

The Indian Interstates Water Disputes Act of 1956 lays down the procedure to be adopted in settling such disputes. A judge or former judge of the Supreme Court or Court of Appeal is to be chosen as arbiter, and his ruling is final. Arbiters of this kind settle interstate disputes only and do not hear private cases. The central Government may establish the general procedure to be followed in trying a case, after consultation with the provincial Governments. Disputes between States which have

^{14/} Mid-Century Conference on Resources for the Future, Proceedings, Washington, 1953, section III, p.8; Gunasekera, Proceedings of the regional technical conference on water resources development in Asia and the Far East, op.cit., p. 48.

^{15/} Ackerman and Lewry, op.cit., p. 439.

already set up boards for the administration of interprovincial rivers are excluded from this procedure and instead come under the Rivers Board Act of 1956 which will be studied later and which establishes an arbitration procedure.^{16/}

In the United States, the rulings of the Supreme Court have, since 1901, paved the way for the use of interprovincial rivers, since it was only after the settlement of numerous disputes that the practice of direct inter-State compacts was instituted. (See the United States Government publication which contains the principal rulings given in this field.)^{17/} Some earlier decisions (1852) refer to navigation only. The jurisprudence in this field has been classified according to two types of lawsuit: (a) those between private persons in different States, in which it was decided^{18/} that the allocation of water for different uses should be determined by the principle of priority and that it should apply between two persons even when they lived in different States; (b) those between States, in which the principle of the equitable distribution of water was laid down.^{19/} (See the interesting analysis which Richard Witmer has made of all this jurisprudence.)^{20/} It may also be observed that it was the United States Supreme Court itself which, in its rulings, commended the procedure of interprovincial treaties as being preferable to that of the distribution of water resources according to legislation.

The Swiss federal tribunal has also ruled on inter-cantonal water distribution.^{21/}

^{16/} Multiple-purpose river basin development, Part 2B Water resource development in Burma, India and Pakistan, Flood control series N° 11, United Nations publication, Sales N°: 1956.II.F.8, Bangkok, December 1956, p.71.

^{17/} United States Department of the Interior, Documents on the use and control of the waters of interstate and international streams, compiled by Richard Witmer, Washington, 1956, pp. 457-733.

^{18/} Bean v. Morris, 221 US 485, 1911.

^{19/} Kansas v. Colorado, 185 US 125, 1902; 206 US 46, 1907.

^{20/} Richard Witmer, The interstate compact and a permanent irrigation agriculture, presented to the First Intersociety Conference on Irrigation and Drainage, San Francisco, California, April 1957.

^{21/} Konrad Schulthess, Das internationale Wasserrecht, Zürich, 1916, p.26.

The solution contemplated here, although useful and effective, is incomplete since it only deals with the framing of regulations, or, in other words, with the aggregate distribution or sharing of water among the different States or provinces concerned and does not govern the relations between Governments and users nor the organization and operation of the agencies which build and manage the works, supply the requirements of the public or carry on industrial or commercial activities.

4. Concurrent or parallel legislation

The principal commentators on the system of administration for inter-State rivers in the United States ^{22/} point out that joint, concurrent or parallel legislation is one of the forms that such administration may take. Since all interprovincial compacts in the United States have to be approved by Congress, this type of legislation has been used for matters the importance of which is not considered sufficient to require the consent of Congress and which therefore escape all the tedious negotiations attendant upon such consent. It has also been used for setting up non-contractual systems from which it is easy to secede since they involve no bilateral obligations and each of the participating States may revoke or amend its concurrent legislation unilaterally without the others lodging a complaint. There are various ways of applying this system.

Thus, the States of New Jersey, New York and Pennsylvania ^{23/} enacted identical and simultaneous legislation on the Delaware river basin to govern the use of the Delaware's waters within their territories for municipal and domestic purposes. The relevant permits are issued by the water-control organizations in each State. But recommendations affecting the common interest of all the States may be presented to the inter-State commission of the river Delaware, which is composed of representatives of the above-mentioned States. The commission may also undertake research in the common interest. Each such Act contains a

^{22/} Witmer, *op.cit.*, p.2; Shih, *op.cit.*, Vol.2, p.1006.

^{23/} New Jersey Laws, 1944, p.328; New York Laws, 1943, p.1457; Pennsylvania Laws, 1943, p.422.

provision suspending its entry into effect until the secretary of the respective State has certified that the other two have also enacted identical legislation.

Similarly, New Hampshire and Vermont, in 1946, enacted parallel legislation for the river Connecticut which obliged private persons wishing to use the Connecticut's waters to obtain permission from the Attorney General of each State.^{24/}

South Dakota and Minnesota took a further step forward drafting concurrent legislation creating the Boundary Water Commission in 1939^{25/} to deal with the waters of Big Stone Lake. The commission is presided over by an engineer - nominated by joint agreement between the Governors of both State - and consists of the Director of Conservation, Fisheries and Hunting in South Dakota and the Commissioner for Conservation in Minnesota. The commission may draw up regulations, but must call upon the local courts in the respective States to enforce them.

Before the conclusion in 1937 of the treaty between New York and New Jersey setting up the Palisades Interstate Park Commission, these States had each designated their own administrative commission for their respective part of the park, in conformity with their own legislation, but both had nominated the same persons commissioners. Thus, in actual fact, the two separate commissions consisted of the same persons.^{26/}

States which are parties to treaties often provide for expansion or amendment by means of parallel legislation, for example, New York and New Jersey in the case of the Port of New York Authority.^{27/} The signatory States of the Gulf States Marine Fisheries Compact^{28/} have agreed, on the other hand, to adopt the recommendations of the inter-State commission constituted by the Compact itself and also to increase its powers.

^{24/} New Hampshire Laws, 1946, ch. 268; Vermont Laws, 1946, N° 16.

^{25/} Minnesota Laws, 1939, ch. 60; South Dakota Laws, 1939, ch. 294.

^{26/} Shih, *op.cit.*, Vol. 2, p.1228.

^{27/} In 1947, it was empowered to build and administer airports - New York Laws, 1947, ch. 802; New Jersey Laws, 1947, ch. 43.

^{28/} United States Public Law N° 66 (81st Congress), chs. IX and X.

5. Interjurisdictional agreements, treaties and compacts

(a) Countries in which they are used

This is one form which Argentina, Australia, India, Switzerland and the United States have adopted to solve the problems of water distribution and jurisdiction over interprovincial rivers. Owing to its nature, it is suitable for use by federal countries only. It should be remembered, however, that at the beginning of this chapter, it was stated that in some federal countries - for example, Brazil, Mexico and Venezuela - the constitution has conferred upon the federal Government the responsibility for managing water and energy resources, and that the problem of super-imposed jurisdictions therefore does not arise.

In the newly-emancipated Asian countries such as India and Pakistan, where water resources are overwhelmingly important from the economic point of view, there is a tendency to leave their administration to provincial Governments. Thus, the 1956 Constitution of Pakistan empowers these Governments to control the use of waters, manage supplies for municipalities and look after irrigation, drainage, flood control, water storage, hydroelectricity, anti-pollution measures, fisheries and navigation.^{29/} Much the same occurred in India, as will be seen later.

In federal countries where the provincial Governments have jurisdiction over the waters, integrated river basin development programmes are, as already stated, faced with a dual problem: (1) how to reconcile the powers of the Governments of the different political jurisdictions in one and the same country with a view to the joint management of a river basin and the adoption of only one programme; and (2) how to choose the best type of administrative organization for this purpose. Inter-State agreements combined with a system of autonomous valley organizations have proved to be a success in Australia, India and the United States. The Australian RMC and Indian DVC are both examples of this type of multi-purpose organization which have fulfilled their aims and carried out works of great importance. There are many more examples to be found in

^{29/} Multiple-purpose river basin development, op.cit., pp. 85 and 116.

the United States, but all are of less importance since the two outstanding regional development programmes undertaken there (TVA and Columbia Basin programmes) were the responsibility of the federal Government alone.

According to some United States commentators, the system involved in this combination is efficacious only in so far as inter-State water distribution or problems of water pollution are concerned which require the drafting of regulations rather than the execution of large-scale projects.^{30/} The TVA experts also impugn its effectiveness, on the grounds that inter-State authorities in the United States have undertaken single-purpose projects rather than integrated development programmes.^{31/}

Some Asian specialists are also critical of the system. For instance, they consider that the DVC's failure to become more efficient arises from the fact that it has to satisfy not one master but several.^{32/} All the same, it must be observed that: (1) both the DVC and RMC have striking achievements to their credit; (2) difficulties in India derive mainly from the fact that its political divisions are, generally speaking, founded on differences of race, religion or tongue which, by interposing emotional factors, make interprovincial relations more difficult.

A survey will next be made by countries in order to see how the system has been applied and what results have been obtained.

(b) Argentina

After 1955, Argentina began the practice of interprovincial agreements for rivers flowing through more than one province. They include the following:^{33/}

^{30/} Mid-Century Conference on Resources for the Future, Proceedings, Washington, 1953, section III, p.8.

^{31/} Ackerman and Lewry, op.cit., p. 439.

^{32/} K.K. Sinha, op.cit., p.435; A.D. Gorwala, Report on efficient conduct of state enterprises, p.33.

^{33/} From September 1955 to May 1958, when the interprovincial agreements cited above were concluded, Argentina was ruled by a de facto Government. Some sectors questioned the right of interprovincial authorities to subscribe to such agreements, and as a result a few of them may have to be ratified anew or may be allowed to lapse. See Guillermo J. Cano, Treaties and compacts between the political divisions of federal countries as sources of international water law, presented to the 48th Conference of the International Law Association, New York, 1958.

- (1) River Colorado. On 29 August 1956, the provinces of Buenos Aires, La Pampa, Mendoza, Neuquén and Río Negro set up an interprovincial organization in which the federal Government was not to participate. This is already in operation and its objectives are to programme the development of the resources of the basin and project the distribution of its water among the riparian provinces.
- (2) Organización interprovincial del agua del Noroeste Argentino (OIANA). The provinces of Catamarca, Formosa, Jujuy, Salta, Santiago del Estero and Tucumán founded this organization on 14 December 1956 for the purpose of studying problems of regional water resources development. Its jurisdiction is not limited to any particular basin, but covers several small comparable areas.
- (3) River Bermejo. This river is also international (with Bolivia). The Argentine Government established a federal commission ^{34/} to study, project, and invite tenders for, development works (navigation and irrigation channels, hidroelectric plants and dams for regulating the rate of flow). At the same time, the provinces concerned (Chaco, Formosa, Jujuy, Salta, Santiago del Estero and Santa Fe) and the federal commission signed a treaty on 31 January 1958 for the development of the river Bermejo, which provided for the participation of the federal Government and for the establishment of an unspecified administrative organization to manage the works. Prior to this, another similar instrument was passed but never actually enforced as it lacked the requisite number of ratifications.^{35/} The Bolivian Government has been notified of the Argentine

^{34/} Act 4962 of 14 May 1957. In article 5, the provinces concerned are invited to nominate delegates without the right to vote.

^{35/} Memoria del Congreso sobre el Canal del Río Bermejo, Resistencia, 1957, official edition by the Chaco Government, p.267. See also J.A. Martínez de Hoz, "El petróleo y las fuentes naturales de energía frente a la reforma de la Constitución", Diario de Jurisprudencia Argentina, 15 November 1957, p. 3.

Government's projects, but has never signed any treaty in this respect.

- (4) Ríos Albigasta and Guayamba. The provinces of Catamarca and Santiago del Estero concluded an agreement on 1 November 1957 for the joint utilization of the above-mentioned rivers, setting up for this purpose a special interprovincial agency - the Comisión Interprovincial del Agua de Catamarca y Santiago del Estero (CIACSE) - which is in operation.
- (5) Río Negro. The provincial Governments of Chubut, Neuquén and Río Negro signed a treaty with the federal Government creating the Corporación Norpatagónica, which was approved on 17 December 1957. As it was signed by de facto Governments, provision was made for subsequent ratification by the de jure legislative authorities which took office on 1 May 1958. Ratification was refused, but the same Governments announced soon after that they had agreed upon new principles for the creation of a Unión Económica de la Patagonia (UNEPA) which, inter alia, would be responsible for developing the basin of the river Negro (interprovincial).

(c) Australia

The problem of the rivers Murray and Dumaresq-Barwon Border was solved in the same way; some brief information will be given on this point in the annex to the report.

(d) United States

Its experience is very vast. In order to demonstrate this, it has been thought worth while to list some of the more important United States compacts relating to rivers (see table 3).

Table 3

INTER-STATE TREATIES (COMPACTS) CONCLUDED IN THE
UNITED STATES IN RESPECT OF INTER-STATE RIVERS

Year	River	Year	River	Year	River
1922	Colorado	1939	Potomac	1948	Upper Colorado
1922	Plate	1942	Republican	1949	Snake
1923	South Platte	1943	Belle Fourche	1950	Canadian
1935	Port of New York	1944	Costilla Creek	1950	Yellowstone
1937	Red of the North	1947	New England	1951	Connecticut
1938	Rio Grande	1948	Arkansas	1953	Sabine
1939	Ohio	1948	Pecos	1958	Bear

There are also other treaties on navigation (Kentucky-Virginia), recreation (Pennsylvania-Ohio with respect to Lake Pymatuning), and river boundaries or fisheries which have been omitted from table 3, since this includes only those treaties that refer primarily to the agricultural use of water. The annex mentions several other compacts which are classified according to their objectives.

Before the theory underlying compacts is reviewed in general, it would be as well to note that the magistrate of one of the States in the United States ruled that it was unconstitutional to employ the funds of State Governments for inter-State administrations; this ruling was later rejected by the Supreme Federal Court.^{36/}

Richard Witmer, who will be used as a guide for these summary remarks on the compact theory, points out that, in order to be effective, compacts must fulfil three conditions:^{37/} (1) they must reconcile territorial political boundaries with natural boundaries; (2) they must be based on the principle that those who are intended to benefit from them are

^{36/} West Virginia v. Sims, 341, US 22 and 30, 1951.

^{37/} Witmer, *op.cit.*, p. 7.

/individuals rather

individuals rather than Governments; and (3) they must be flexible as to the type of administration to be adopted and admit the possibility of subsequent amendment.

With regard to the last point, it should be noted that when the Supreme Court has ruled on disputes, it always allows for the possibility that its decisions may be reviewed and rectified if the basic facts of the case change. The "facts" of course embody more than the physical aspects. Technical progress in water utilization may lead to new uses or different forms of utilization which would alter the basic facts in so far as the equitable distribution of benefits between two or more States is concerned. Witmer considers the immutability of many compacts to be a defect, firstly, because it prevents them from being amended even though the facts of the case may change, and, secondly, because it is apt to deter State Governments from resorting to them for fear of committing themselves sine die to solutions that might prove unsatisfactory in the light of subsequent experience. The United States Congress itself appears to be of the same opinion, since it recently made it customary, in cases that require its consent, for a clause to be inserted by which its consent may be retracted whenever necessary to enable a compact to be amended. The latest treaty of this type, referring to the river Bear, which was signed in 1958, provides (section XIII) for revision of the treaty every 20 years. It is very unusual, however, for any provision to be made for unilateral denunciation.^{38/}

As regards the "objects" or consumers, there are two general types of compact in the United States: those which distribute water among the different States as the Upper Colorado river compact, and those which concern individual users and the way in which they exercise their rights, as the Little Snake, Costilla Creek and Bear river compacts.

There are four varieties of compact for the administration of the different rivers: (1) those which do not provide for or create any

^{38/} The Gulf States Marines Fisheries Compact of 1949 provides (section XIV) that it may be denounced by State law with effect from six months after notification has been given of such denunciation.

/organization whatsoever,

organization whatsoever, such as the Colorado and South Platte river compacts; (2) those which delegate responsibility for the implementation of their provisions and for water management, within the respective State boundaries, to the ordinary authorities in each State, i.e. without creating any special organization, although the administrative procedure to be followed is laid down, as in the cases of the Belle Fourche, Costilla Creek, Plate, Republican and Snake river compacts; (3) those which set up special organizations, but limit their competence to the measurement of water, as the Canadian river and Rio Grande compacts; and (4) those which establish special organizations with wide powers. Examples of the last category are the Sabine River Compact,^{39/} which has set up a commission to record and authorize the points and methods of water diversion; the Bear River Compact, which has set up a commission that may decide how water distribution is to be carried out in times of drought; and the New York Harbor Pollution Control Compact, which has established a commission to execute its orders directly.^{40/}

It is recommended that officials in interprovincial organizations should have direct authority over users.^{41/} Nevertheless, most of the United States treaties only authorize such organizations to seek judicial enforcement for their orders, if those to whom they are issued are unwilling to carry them out.^{42/}

(e) India

India has followed the same procedure in regard to the Damodar, Bhakra, Tungabhadra and Hirakud rivers, as may be seen from the annex. The way in which inter-State river control boards are to be organized is laid down in the River Boards Act (N° 49 of 1956), which is of a general nature. Its main provisions are as follows:

^{39/} 68 Stat. 690, section III.

^{40/} 49 Stat. 932, sections X and XI.

^{41/} Witmer, *op.cit.*, p. 5.

^{42/} For instance, the South Dakota Commission, Bear River Commission (section III D), Connecticut Commission (section XI), Ohio River Commission (section IX), etc.

- (1) The boards may regulate water distribution and supervise development projects for inter-State rivers and valleys;
- (2) Boards are set up at the request of the States or by order of the central Government, but in the latter case, the States are consulted beforehand and should express their views on the formation of the board, its directors and its terms of reference;
- (3) The boards have their own juridical and administrative personality, may have their own property and may plead their own cases in court;
- (4) The tributaries of the respective principal rivers come under the jurisdiction of the corresponding boards;
- (5) Boards consist of a chairman and as many members (all technical experts) as the central Government sees fit to appoint; in setting up a board the Government must also define its organization and rules of procedure.
- (6) The boards may nominate advisory committees ^{43/} and bring in new members, who, however, may not vote;
- (7) The functions of the boards are to undertake studies, prepare projects, make recommendations as to the distribution of costs and benefits among the respective member Governments and advise the latter in their construction works. They must consult member Governments at all stages of their activities, and try to establish agreement among them. They may inspect the works constructed by the Governments and ask for reports on them.
- (8) The boards are financed by contributions from the central Government and State Governments. In one case, that of the Hirakud Control Board, the central Government provides all the funds but in the shape of a loan to the State of Orisa, which acts through its delegation forming part of the board together with members of both Governments.

^{43/} The Hirakud Control Board has a development board (for all matters concerned with land purchases, the settlement of displaced persons, etc.) and another for contracts.

- (9) The boards have to submit annual reports to the central Parliament and State Governments on their activities and present their accounts for auditing, which is carried out as stipulated in each case.
- (10) Any disputes that arise are to be settled by an arbiter appointed from among the magistrates and ex-magistrates by the President of the Supreme Court.
- (11) Board officials are considered as belonging to the public administration for the purpose of their penal responsibility and the boards may confer upon them some of their own powers.
- (12) The central Government is responsible for the formulation of the Act and the boards for their own rules of procedure.

It should be pointed out that the Government of India Act of 1935 drawn up under United Kingdom administration empowered State Governments to manage irrigation and hydroelectricity production. If conflicts arose among them over inter-State rivers, the central Government intervened by appointing a commission to prepare a report on which it would use as a basis for its ruling. After India became independent, the State Governments retained their powers and attempts to transfer full powers of river management to the central Government have so far been unsuccessful.^{44/}

The Damodar Valley Authority has its own Act which confers much wider powers upon it than those deriving from the River Boards Act. The latter governs all the Control Boards listed in the annex.

(f) Switzerland

Switzerland's experience goes back to 1841, when the cantons of Zürich and Schwyz regulated the use of the river Sihl in this way.^{45/}

(g) Attempt to systematize the principles governing interjurisdictional organizations

There is no question here of embarking upon an exhaustive analysis of

^{44/} Proceedings of the regional technical conference for water resources development in Asia and the Far East, op.cit., p. 246; Multiple-purpose river basin development, op.cit., p. 71.

^{45/} Schulthess, op.cit., p.41.

the principles that govern organizations created by interprovincial or inter-State agreements - which would fill a large volume - but of cursorily reviewing their general trends.

(i) Juridical personality. Many agreements create organizations with their own juridical and political personality (corporate and political bodies),^{46/} which must function as Government "instrumentalities" and may act under both public and private law. Some of these organizations have had State governmental powers expressly conferred upon them, i.e. they act in the name of the Governments.^{47/} The latter may therefore modify the terms of reference of an inter-State organization unilaterally, though the amendments will be valid only within the territory of the State concerned.

The fact that such organizations are exempt from the need to comply with the individual legislation of their member States - as regards contracts or staff recruitment, for instance - and are subject instead to their own statutes brings out even more distinctly the powers that are conferred by the possession of a juridical personality.^{48/}

(ii) Authorities. The directors or commissioners are usually elected in conformity with the laws of the State that they represent,^{49/} and in the United States, the chairman is often a representative of the President, without the right of vote.^{50/} It is normally required that they should be citizens with the right to vote who are residents in the organization's

^{46/} Bi-State Commission (section III), Canadian Commission (section IX), Delaware Port Authority (section I), Palisades Commission (section II), Breaks Commission (section II), Damodar (DVA).

^{47/} Palisades Comm. (section III), Bhakra Board.

^{48/} Comisión Interprovincial del Agua de Catamarca y Santiago del Estero (CIACSE), Argentina. Agreement of 1 November 1957, article III; river Bermejo treaty (unratified) of 30 November 1956, article 4; Canadian Commission (section IX(b)); Potomac Comm.(section I).

^{49/} IRMC; Dumaresq Commission; Bi-State Commission (section III); Canadian Commission, (section IX); DVC.

^{50/} Yellowstone Commission; Bear River Commission (section III); Ohio Commission (section IX); Potomac Commission (section I).

/jurisdiction. Certain

jurisdiction. Certain officials, who possess specialized knowledge, are often made ex officio members.^{51/}

The principle of unanimity for decisions to be valid is laid down in numerous agreements ^{52/} although in others a majority vote is deemed sufficient (DVC).

When each party to an agreement is represented by several members, agreements require not only a majority vote on the part of all the delegations but also that there shall be a quorum in each delegation.^{53/} Other agreements insist upon a total quorum.^{54/}

Some reserve for the Governors of the member States the right of veto with respect to important activities.^{55/}

The responsibilities of the organizations' officials are placed on a comparable level with those of State employees in certain agreements and with those of private companies in others.

(iii) Terms of reference. See the analysis of the terms of reference of United States organizations earlier on. Some merely establish regulations, and have no executive activities. Nearly all have jus edicendi, i.e., they may draw up regulations which are binding on all the inhabitants within their jurisdictions.^{56/} In exceptional cases, they have the imperium, or, in other words, the power to ensure that their own orders are carried out, although the majority are obliged to request enforcement of their orders by the judiciary.^{57/}

^{51/} Tungabhadra Board; New England Commission (section III); Gulf States Commission (section III).

^{52/} Comisión Interprovincial del Agua de Catamarca y Santiago del Estero (CIACSE), Regulations, article 5; RMC; Bi-State Commission, Canadian Commission (section IX).

^{53/} CIACSE, Regulations, article 5; Bi-State Commission (section V).

^{54/} RMC, except for questions of procedure; Canadian Commission (section IX).

^{55/} Bi-State Commission (section V); New York Port Authority.

^{56/} DVC; Costilla Creek Commission (section VIII).

^{57/} Bear River Commission (section III D); Ohio Commission (section IX).

/Nearly all

Nearly all organizations may appear in court as plaintiff or defendant, by virtue of possessing juridical personality. Many have direct rights of expropriation, while others have to request the Governments concerned to expropriate on their behalf. One is expressly authorized to spend funds abroad. Another is empowered to give orders not only to private persons, but to State organizations and municipalities. In a few cases, inter-State or interprovincial commissions may set up their own pension funds for their staff.^{58/}

(iv) Territorial jurisdiction. This generally comprises not only rivers, but river basins and valleys. In some cases, tributaries have also been explicitly included.^{59/}

(v) Control by member Governments. Political control is exercised in a great variety of ways. Ackerman and Lewry consider it desirable that an organization should not be obliged to undertake certain activities for motives of political convenience. The decisions of the Indian River Control Boards are subject to ratification by the member States, which implies a maximum degree of political control. In the case of the DVC, the central Government may give instructions on policy, which thereafter have to be carried out. In other cases, particularly in the United States, organizations have full autonomy; this is even one of the conditions attaching to their establishment in order to ensure impartial action on their part.

The auditing of expenditure accounts is sometimes left to the accounting offices of the member States and sometimes to qualified independent public accountants ^{60/} independently of the accountancy legislation of the States or provinces.

(vi) Privileges. Such organizations are usually exempt from payment of rates and taxes, but frequently have to make payments in lieu of taxes which are agreed upon contractually and replace the revenue that the

^{58/} Gal Oya Board, Rules, B1-25.

^{59/} India, The River Boards Act, section 4, para. 4; New England Commission (section I); Canadian Commission (section II).

^{60/} Canadian Commission (section IX b); see also ST/TAA/M/7, p.10.

member States cease to receive following the transfer of part of their powers to these organizations.^{61/} The DVC has to pay federal income tax in the same way as any private person. Some commissions are authorized to request exemptions from the federal Government when the latter is in a position to grant them.

(vii) Relations with member States, especially in regard to finance. Some treaties make provision for the accession of new member Governments.

A number of them lay down that any dispute that arises in connexion with the implementation of the treaties is to be settled by arbitration.^{62/}

The financial commitments of the members take on very diverse forms. Investment in the DVC (which comprises the central Government and two States) for the purpose of energy production is, for example, divided into equal shares; as regards irrigation, each State pays only that portion of investment from which it will derive benefit, and if the same investment is to serve more than one State, each contributes an amount proportionate to the quantity of water which has been guaranteed for distribution to it; with respect to investment for flood control, the federal Government and only one State bear half the costs each up to a fixed limit, beyond which the State Government assumes the entire responsibility; study, projection and administrative costs are divided into three equal parts. Interest is guaranteed on governmental contributions and is charged against overhead.

In the RMC, which is composed of three States and the central Australian Government, a quarter of the construction investment and administrative costs is paid by each Government and a third of the maintenance costs by each of the provincial Governments.

In the Argentine CIACSE, study and projection costs are paid in equal proportions by the members. Construction and execution costs are charged in proportion to the benefits that each province expects to receive.

^{61/} Delaware Port Authority (section XI).

^{62/} DVC; RMC: in this agreement, the arbiter is nominated by the Chief Justice of the Tasmanian Supreme Court (another State) since the central Government, being one of the contracting parties, may be involved in the controversy.

Some United States treaties fix ceiling quotas for each State's contributions which vary according to the magnitude of the interests involved. Thus, the New England Interstate Water Pollution Control Compact has allocated the following quotas in dollars: Massachusetts, 6,500, Connecticut, 3,000, Rhode Island, 1,500 and the others 1,000 each.

The river Potomac treaty establishes the contributions on the basis of various indices: (1) population; (2) the scale of industrial water pollution and of that arising from the urban use of water in each State; (3) plus a basic standard rate for all. No State may pay more than 30,000 dollars a year for all items.

Nearly all the United States agreements contain a clause providing that inter-State organizations may not compromise the individual credit of signatory States. However, many of them authorize these organizations to issue bonds or other securities which involve only the organizations themselves.

In other cases, the States must vote their contributions annually when so requested by the organizations and the latter may not compromise themselves financially until such contributions have been paid to them.

The salaries of the commissioners representing the States are generally paid directly by the latter to ensure their independence. But the inter-State agencies are often authorized to pay their expenses for travel, etc.

(viii) Miscellaneous. Many United States compacts contain a provision to the effect that, if one of their regulations is declared unconstitutional, the rest remain in force.^{63/}

^{63/} New England Commission (section IV); Bear River Commission (section XV).

Annex

MAIN REGIONAL ORGANIZATIONS FOR THE
UTILIZATION OF WATER RESOURCES

Symbols or
abbreviations

I. ORGANIZATIONS ESTABLISHED BY MORE THAN ONE POLITICAL
BODY (INTERSTATE OR INTERPROVINCIAL) 1/

(a) AUSTRALIA

1. River Murray Commission (States of New South Wales, Victoria and South Australia and the central Government). Purposes: navigation, electricity, irrigation. Terms of reference: planning and drawing-up of regulations and administrative rules but not construction. It has no juridical personality or contractual powers. 2/ RMC

2. Dumaresq-Barwon Border Rivers Commission (States of Queensland and New South Wales). Created in 1947 by an inter-State agreement. Purposes: conservation, irrigation and community supply. Terms of reference: supervision and construction. 3/ Dumaresq

(b) UNITED STATES

(i) Multi-purpose organizations

3. South Dakota-Minnesota Boundary Water Commission (States of South Dakota and Minnesota). Created in 1939 by joint legislation in both States. S.Dakota Comm.

1/ Several international organizations which are outside the scope of this study have not been included.

2/ See Commonwealth of Australia, The river Murray water agreement, Canberra, 1957, with the text of the Treaty of 9 September 1914 and the reforms of 1923, 1934, 1948 and 1954; also RMC, the work of the river Murray Commission, Melbourne, 1955 and the River Murray Commission, "The development of control of the waters of the river Murray under the River Murray Agreement", Proceedings of the Regional Technical Conference on Water Resources Development in Asia and the Far East, Flood Control Series N° 9. United Nations publication, Sales N°: 1956.II.F.3, Bangkok, 1956, p.422.

3/ K.A. Murley, "Organization for the development of water resources in Australia", Proceedings of the Regional Technical Conference on Water Resources Development in Asia and the Far East, op.cit., p.418.

/Purposes: conservation,

Symbols or
abbreviations

Purposes: conservation, recreation and flood control.
Terms of reference: drawing-up of regulations,
administration and construction. 4/

4. Bi-State Development Agency of the Missouri-Illinois (Metropolitan District (States of Missouri and Illinois). Created by the Treaty of 31 August 1950. Purposes: the development of the city of St. Louis (Missouri) and of the neighbouring counties in the State of Illinois. Terms of reference: the construction of bridges, under-water tunnels, airports, sewage, rain drainage and drinking water systems. It has political and juridical personality. 5/ Bi-State Comm.
 5. Canadian River Commission (States of Oklahoma, Texas and New Mexico). Created by the Treaty of 17 May 1952. Purposes: to measure and distribute waters among the States. Terms of reference: drawing-up of regulations and administration. 6/ Canadian Comm.
 6. Yellowstone River Commission (States of Montana and Wyoming). Created by the Treaty of 30 October 1951 between the above-mentioned States and that of North Dakota. Purposes and terms of reference: similar to those of the Canadian Commission. It has juridical personality. 7/ Yellowstone Comm.
- (ii) Organizations for irrigation
7. Bear River Commission (States of Idaho, Utah and Wyoming). Created by the Treaty of 17 March 1958. Purposes: to measure and distribute water among the States and their individual irrigators. Terms of reference: drawing-up of regulations and administration. It has juridical personality. 8/ Bear River Comm.
 8. Costilla Creek Compact Commission (States of Colorado and New Mexico). Created by the Treaty of 11 June 1946. Costilla Comm.

4/ Minnesota Laws of 1939, ch.60; South Dakota Laws of 1939, ch. 294; Shih, op.cit., Vol.2, pp.1008 and 1227.

5/ United States Congress Public Law N° 743, 1950.

6/ 66 Stat. 74.

7/ 65 Stat. 663.

8/ 72 Stat. 38. Public Law N° 348 (85th Congress).

/Purposes: integrated

Symbols or
abbreviations

Purposes: integrated administration of inter-provincial irrigation systems. Terms of reference: measurement of waters and drawing-up of regulations.^{9/}

(iii) Organizations for port administration

9. Port of New York Authority (States of New York and New Jersey). Created by the Treaty of 23 August 1921. Purposes: construction and administration connected with access to the Port of New York (roads, railways, airports, grain elevators, lorry and bus terminals, under-river tunnels, river bridges). Terms of reference: the drawing-up of regulations, construction and administration. It has juridical personality.^{10/} N.Y. Port A.
10. Delaware River Port Authority (States of New Jersey and Pennsylvania). Created by the Treaty of 14 June 1932, amended in 1952. Purposes: administration of the "port district" in all aspects relating to facilities of access for freight and passengers, and administration of river bridges. Terms of reference: construction, administration, drawing-up of regulations, expropriation and fixing of tariffs for its services. It has juridical personality.^{11/} Delaware Port A.
- (iv) Organizations for the administration of public parks (recreation)
11. Palisades Interstate Park Commission (States of New York and New Jersey). Created by the Treaty of 19 August 1937. Purposes: administration of an inter-State park. Terms of reference: construction, administration and drawing-up of regulations. It has juridical personality.^{12/} Palisades Comm.
12. Breaks Interstate Park Commission (States of Kentucky and Virginia). Created by Breaks Comm.

^{9/} United States Public Law N° 408 (79th Congress).

^{10/} 42 Stat. 174; Frederick L. Bird, A study of the Port of New York Authority, New York, 1949.

^{11/} 66 Stat. 738 and 747.

^{12/} United States Congress Public Joint Resolution 65 (75th Congress).

Symbols or abbreviations

the Treaty of 27 July 1954. Purposes: administration of an inter-State park. Terms of reference: construction, expropriation, administration and drawing-up of regulations. It has juridical personality. 13/

(v) Organizations for the administration of fisheries

13. Gulf States-Marines Fisheries Commission (States of Alabama, Florida, Louisiana, Mississippi and Texas). Created by the Treaty of 19 May 1949. Purposes: protection, conservation and development of sea and fresh-water fisheries. Terms of reference: programming and co-ordination. 14/ Gulf States Comm.
14. Pacific Marines Fisheries Commission (States of California, Oregon and Washington). Created by the Treaty of 24 July 1947. Purposes and terms of reference similar to those of the Gulf States Commission. 15/ Pacific Comm.
15. Atlantic States Marine Fisheries Commission (States of Maine, New Hampshire, Massachusetts, New York, New Jersey, Delaware, Maryland and Virginia). Created by the Treaty of 4 May 1942. Purposes and terms of reference: similar to those of the Gulf States Commission and the Pacific Commission. 16/ Atlantic Comm.
- (vi) Sanitation and anti-water pollution organizations
16. Interstate Sanitation Commission New York-New Jersey-Connecticut (States named). Created by the Treaty of 27 August 1935. Purposes: to prevent water pollution along the seacoast. Terms of reference: drawing-up of regulations and powers of decision as to execution of anti-water pollution measures. 17/ Connecticut Comm.
17. Interstate Commission of the Delaware River Basin (States of Delaware, New York, New Jersey /and Pennsylvania). Delaware Comm.

13/ 68 Stat. 571.

14/ 63 Stat. 70.

15/ 61 Stat. 419.

16/ 56 Stat. 267. and 64 Stat. 467.

17/ 49 Stat. 932.

Symbols or
abbreviations

- and Pennsylvania). Created in 1936 by administrative agreement among the health departments of the States concerned. Purposes: conservation of water, soil and forests and prevention of water pollution. Terms of reference: advisory only. 18/
18. Ohio River Valley Sanitation Commission (States of Illinois, Indiana, Kentucky, New York, Ohio, Pennsylvania, Tennessee and West Virginia). Created by the Treaty of 11 July 1940. Purposes: prevention of water pollution. Terms of reference: drawing-up of regulations for sewage systems and industrial uses of water and arranging for judicial enforcement action. It has juridical personality. 19/ Ohio Comm.
19. Interstate Commission of the Potomac River Basin (States of Maryland and Virginia and District of Columbia). Created by the Treaty of 11 July 1940. Purposes: prevention of water pollution in the river Potomac. Terms of reference: study and advice to Governments. 20/ Potomac Comm.
20. New England Interstate Water Pollution Control Commission (States of Connecticut, Massachusetts and Rhode Island). Created by the Treaty of 31 July 1947. Purposes: to prevent the pollution of river and maritime waters. Terms of reference: drawing-up of regulations for projects that may result in water pollution. It has juridical personality. 21/ New England Comm.
- (c) INDIA 22/
21. Damodar Valley Corporation (States of Bihar and West Bengal and the central Government). DVC

18/ Shih, op.cit., Vol.2, p.1015.

19/ 54 Stat. 752.

20/ United States Congress Public Resolution N° 93 (76th Congress).

21/ Public Law 292 (80th Congress).

22/ In this country, there are two Acts referring to the regulation of interprovincial waters in general: the River Boards Act N° 49 of 1956 and the Interstate Water Disputes Act, also of 1956. See Proceedings of the regional technical conference on water resources development in Asia and the Far East, op.cit., p. 71 and Multiple-purpose river basin development, op.cit., p. 426.

Symbols or abbreviations

Created by inter-State agreement approved by Act N° 14 of the Indian Parliament on 18 February 1948. Purposes: integrated development of the multiple uses of the Damodar river valley (irrigation, flood control, municipal supplies, hydroelectricity, navigation, sanitation, afforestation, erosion and agricultural and industrial development). Terms of reference: construction, administration and drawing-up of regulations. It has juridical personality. ^{23/} Further details are given in the main body of this report.

- | | | |
|-----|---|-------------------|
| 22. | <u>Bhakra Control Board</u> (States of Punjab, Pepsu and Rajasthan). Purposes: water development in the Bhakra river basin. Terms of reference: financial and technical planning and administration. No construction. ^{24/} | Bhakra Board |
| 23. | <u>Tungabhadra Board</u> (States of Madras, Hyderabad, Misora and Andhra). Purposes: water development in the river Tungabhadra. Terms of reference: similar to those of the Bhakra Board. ^{25/} | Tungabhadra Board |
| 24. | <u>Hirakud Control Board</u> (the central Government and State of Orisa). Purposes: water development in the Hirakud basin. Terms of reference: it is subject to the control and approval of its member Governments; construction. ^{26/} | Hirakud Board |

^{23/} DVC, Eight years of DVC, Calcutta, 1956; K.K. Sinha, op.cit., p. 436; Multiple-purpose river basin development, op.cit., and E/CN.11/WRD/CONF.3/L.2, p.22.

^{24/} Multiple-purpose river basin development, op.cit., p.69; Proceedings of the regional technical conference on water resources development in Asia and the Far East, op.cit., pp. 49, 432 and 438; E/CN.11/WRD/CONF.3/L.3, p.24.

^{25/} Proceedings of the regional technical conference on water resources development in Asia and the Far East, op.cit., p. 433.

^{26/} Multiple-purpose river basin development, op.cit., p. 69; Proceedings of the regional technical conference on water resources development in Asia and the Far East, op.cit., p.49.

Symbols or
abbreviations

II. ORGANIZATIONS THAT ARE SUBSIDIARY TO OR CREATED BY
ONE POLITICAL BODY 27/

(a) BRAZIL

25. Comissão do Vale do São Francisco Com. S. Fco.
Created by Federal Act N° 541 of 15 December
1948. Purposes: integrated development of the
São Francisco valley. Terms of reference:
programming, construction and co-ordination with
local Governments. 28/

(b) CEYLON

26. Gal Oya Development Board. Created by Act N° 51 Gal Oya Board
of 1949, reformed by Act N° 40 of 1952. Purposes:
integrated development of the Gal Oya basin.
Terms of reference: construction and administration,
and the exercise in its own area of the functions
of other specialized agencies. It has juridical
personality.29/ For more details see the text
of this report.

(c) COLOMBIA

27. Corporación Autónoma Regional del Cauca. CVC
Created by federal decree 3110 of 22 October
1954. Statutes approved by decree 1829 of 5
July 1955. Purposes: integrated development
of the Cauca basin and adjacent lands. Terms
of reference: planning, construction, administration,
expropriation and drawing-up of regulations. It
has juridical personality in public and private
law.30/ Further details are given in the body of
this report.

27/ Only multi-purpose organizations are listed.

28/ The Companhia Hidroelétrica do São Francisco, set up by legislative
decree 8031 of 3 October 1945, which operates in the São Francisco
valley and whose functions should be co-ordinated with those of the
commission, has not been mentioned in the text since it is a single-
purpose body.

29/ Gal Oya Development Board, Annual report 1949-50, Colombo, 1951;
K.K. Sinha, op.cit., p. 437; E/CN.11/WRD/CONF.3/L.2, p.29.

30/ CVC-A regional program, Cali, 1956; International Bank for Reconstruction
and Development, The autonomous regional Corporation of the Cauca Valley
and the development of the upper Cauca Valley, Washington, 1955.

- Symbols or abbreviations
- (d) UNITED STATES
28. Tennessee Valley Authority. Created by Federal Act N° 17 of 18 May 1933 and subsequently amended several times. For further details, see the text of this report. 31/ TVA
29. St. Lawrence Seaway Corporation. Created by Federal Wiley-Dondero Act N° 358 of 13 May 1954. Purposes: construction and administration of projects in United States territory, in order to open up and operate a seaway from the Great Lakes to the Atlantic. Terms of reference: construction, operation, drafting of regulations and fixing of rates. Hydroelectric development is expressly excluded. It is an autonomous corporation. 32/ St. Lawrence Corporation
- (e) PHILIPPINES
30. Marikina River Committee. Inter-agency committee created by presidential decree. Purposes: hydro-electricity, irrigation and municipal supply. Terms of reference: planning and co-ordination. 33/ Marikina Comm.
- (f) FRANCE
31. Compagnie Nationale du Rhône. Authorized by an Act of 7 May 1921. Statutes of 11 October 1932. Enterprise constituted by various governmental and private bodies in the form of a private company but vested with certain official powers. For further details, see the text of this report. 34/ Purposes: development of the CNR

31/ 48 Stat. 58; 49 Stat.1075; 53 Stat.1083; 54 Stat.611. See also David Lilienthal, Democracy on the march, Harper & Bros., New York, 1953; Gordon Clapp, The TVA. An approach to the development of a region, The University of Chicago Press, Chicago, 1955; Roscoe Martin, TVA. The first twenty years, The University of Alabama and University of Tennessee Presses, 1956.

32/ See the St. Lawrence Seaway Manual, presented by Mr. Wiley, Senate Document N° 165, 83rd Congress, Washington, 1955.

33/ Multiple-purpose river basin development, *op.cit.*, p. 52.

34/ Compagnie Nationale du Rhône, Récueil des textes constitutifs, Lyons, 1951; idem Rapport du Conseil d'administration à l'Assemblée Générale, 1957, Lyons, 1957.

Symbols or
abbreviations

Rhône basin for navigation, hydroelectricity
production and irrigation.

(g) ITALY

32. Cassa per il Mezzogiorno. Created by Act N°
646 in 1950. Purposes: development and super-
vision of irrigation, flood control, anti-erosion
measures, roads, railways and agricultural
industries throughout the south of Italy.
Autonomous organization.

Mezzog.

(h) JAPAN

33. Hokkaido Development Agency. Created by an
Act in 1947 to plan, co-ordinate and administer
projects prepared by other organizations,^{35/}
with particular regard to water resources.

Hokkaido Ag.

(i) MEXICO

34. Comisión del Papaloapan. Created by executive
agreement on 26 February 1947, and ratified by
Federal Act of 19 December 1951. Purposes:
projection and construction of flood control,
irrigation and hydro-electricity works,
municipal water supplies, communications (rail-
ways, roads and telephones) and urbanization
of the Papaloapan basin. It has relative
autonomy as regards property and finances.
35. Comisión del Tepalcatepec. Created by the
agreement of 14 May 1947, ratified by the same
Act as in the case of the Comisión Papaloapan
which it resembles.
36. Comisión del Río Fuerte. Created by presidential
agreement of 27 June 1951. Similar to the
Comisión Tepalcatepec.
37. Comisión del Río Grijalva. Created by
presidential agreement on the same date and
subject as in the case of the Comisión
Río Fuerte.

Com.Papaloapan

Com.
Tepalcatepec

Com.R.Fuerte

Com.Grijalva

^{35/} Yoshitake Sasaki, "The present administrative structure for the water
development and the problems involved therein", Proceedings of the
regional technical conference on water resources development in Asia
and the Far East, op.cit., pp.49 and 427.

Symbols or
abbreviations

38. Comisión Hidrológica de la Cuenca del Valle de México. Created by presidential agreement of 13 June 1951. Purposes: to co-ordinate the programming undertaken by various other organizations, with the participation of professionals. Terms of reference: study only.

Com.Valle Méx.

(j) PERU

39. Corporación Peruana del Santa. Created by decree of 4 June 1943, under Act 9577. Purposes: integrated development of water and mining resources in the Santa basin, including the port of Chimbote. Its structure is that of a private enterprise and it is financed from special taxes (Act 10090 of 1944). For further details, see the text of this report.^{36/}

Corp.Santa

^{36/} Corporación Peruana del Santa, Statutes, Lima, 1951.

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