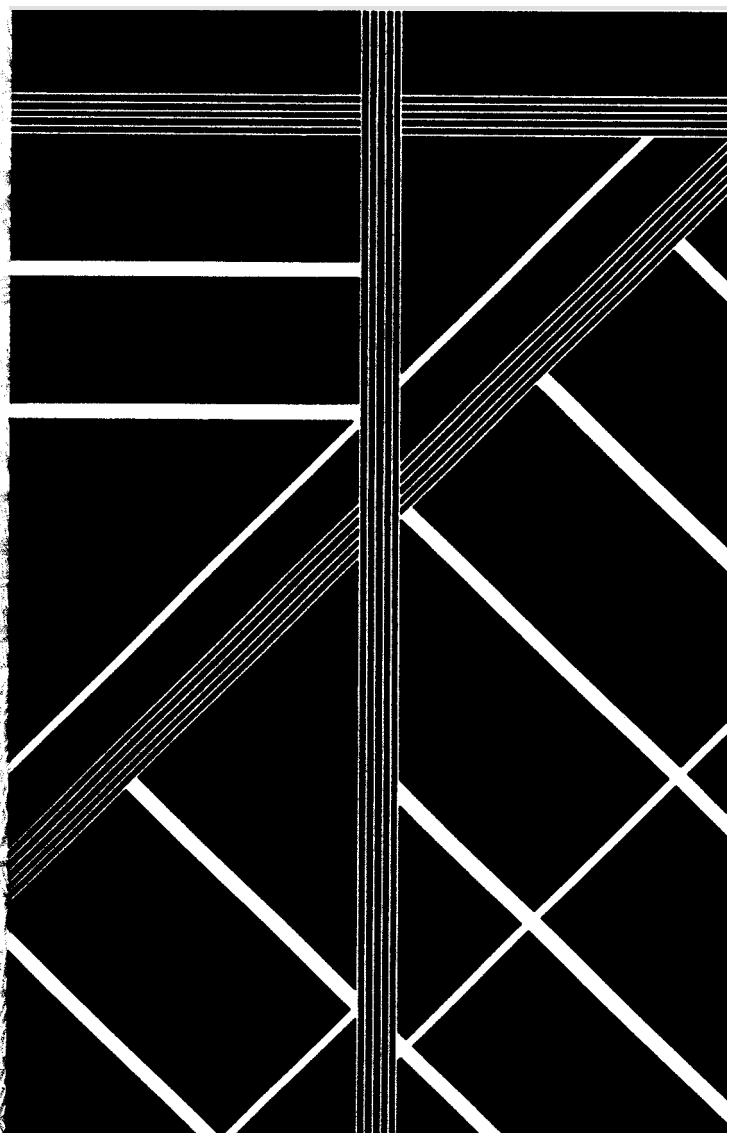


LOCAL ADMINISTRATION OF
WATER CONTROL IN A NUMBER OF
EUROPEAN COUNTRIES



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LOCAL ADMINISTRATION OF WATER CONTROL IN A NUMBER OF EUROPEAN COUNTRIES

A report to the
SUB-COMMISSION ON LAND AND WATER USE OF THE EUROPEAN
COMMISSION ON AGRICULTURE – F.A.O.

L'ADMINISTRATION LOCALE DE L'AMÉNAGEMENT DES EAUX DANS CERTAINS
PAYS D'EUROPE

ÖRTLICHE VERWALTUNG DER WASSERWIRTSCHAFT IN EINIGEN LÄNDERN
EUROPAS

ADMINISTRACIÓN LOCAL DE AGUAS EN ALGUNOS PAISES EUROPEOS

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INTRODUCTION

The development and management of water resources is an important part of the agricultural economy of many European countries. Central Governments carry much of the responsibility for water resource development, but more and more attention is being given to the possibilities of making efficient use of local governmental bodies for both development and management of water facilities. In a number of countries much attention is being paid to the organization and administration of local water control, especially to the control of floods by means of embankments and dikes, drainage of low lying areas by pumping and by systems of drainage channels, and to irrigation of lands under dry conditions. The main tasks of local organizations for water control are the construction of water control works. They also maintain the water control work, they manage the distribution of irrigation water and carry out other related functions. They levy assessments to cover the costs of the work. In many low lying areas in Europe local organizations for water control have existed for centuries, but in some countries such local organizations are relatively new.

The great diversity in the types of local organization of water control and the efficiency of such organization as found in the several European countries is worthy of note. The constant evolution of the local administration of water control is also striking in many countries.

The Sub-Commission on Land and Water Use of the European Commission on Agriculture meeting at Vienna in October 1957 saw in the foregoing a reason to decide to make a study of the local bodies for the administration of water control. The investigation was to comprise a survey of types of local bodies including a study of organizational structure, functions, financial arrangements and relationships with central governments, and including also an evaluation of the effectiveness of these local bodies.

The present report is the result of this study. In its preparation the author was assisted by especially appointed country correspondents. Seventeen such persons provided nation-

al reports in response to the authors requests. Several provided supplemental information of great value. In addition it was found possible to make use of some other sources of information. Contacts were established with international organizations in the water field, particularly with the International Commission on Irrigation and Drainage and with the Commission Internationale du Génie Rural. A concise and valuable documentation was provided by the latter organization. The assistance of the country correspondents and these international organizations is gratefully acknowledged.

Although the flow of water is regulated by the same hydraulic laws in all countries, there is a very great diversity of types of local administration of water control, a diversity that must be ascribed to differences in historic and political development. Nevertheless it may be observed that in spite of the differences in the form of local administration there is a great similarity in the aims of the several organizations. The factors which are the inducement for local administration of water control are the same in practically every country.

In chapter 1 of this report we shall first give an analysis of the factors which make a public development of local water control necessary. Chapter 2 will contain a survey, based mainly on the data extracted from country reports, of striking aspects and differences in the local administration of water control in the countries to which the questionnaire was sent. In chapter 3 the public district as important tool in the local administration of water control will be discussed, and the legal basis, organization, finances, etc. will be analysed. Finally, chapter 4 contains a brief review of the effectiveness of local administration for management and development of water control. The possibilities but also the limitations of some important types of local organization will be examined. An attempt will be made to indicate on what factors an efficient working of the local organization of water control depends.

1. OBJECTIVES OF JOINT DEVELOPMENT

1.1. THE NECESSITY OF JOINT DEVELOPMENT OF WATER CONTROL IN AGRICULTURE

The availability of water constitutes an essential condition for the vital functions of man, animals and plants. Development and management of water resources – including irrigation, navigation and water power – sustain prosperity in the life of the community. Not only is water of great importance as a friend of mankind, but also as an enemy, as an ensnarer of body and property. Water sometimes makes it necessary to take comprehensive and drastic measures, especially when it has to be held in check by flood control and drainage.

The way in which water occurs in a permanent cycle, its vast expanse and its fluid character make it pre-eminently a common possession. It is for these reasons that the management of water over large areas of the earth is regarded as a matter for the community.

In the field of agriculture there is a special aspect of the relation between land utilization and water. The need for water management will be found to be fundamentally the same within a given area. The earth may be divided into a number of areas within each of which hydrographical and hydrological conditions show little if any differences from one spot to the other, whereas there may be a great difference between the several areas.

It is not difficult to illustrate this with a few examples. In low lying areas along the coastal regions of low countries or along the banks of rivers and streams the different types of land share to some extent in the requirements of flood control and drainage by pumping. Sometimes the areas with the same hydrographical and hydrological qualities measure a few dozen hectares, and not infrequently the same peculiar water conditions are found over an area of some hundreds of thousands of hectares.

The consequence of the regional constancy of the water conditions is that the need of water control and the nature of water control measures to be taken over the full expanse of these areas are one and the same. In a low lying area all land users desire the same measure of drainage and amount of pumping of superfluous water as well as the control of flood waters from adjacent rivers, lakes or seas. In a dry area all farmers desire to a more or less same extent to have water brought to their lands for irrigation purposes.

Since the quantity of water involved in the supply and drainage of water is almost invariably extremely great a considerable effort is needed to effect water control. In general the conveyance of water is only feasible from a technical and economic standpoint when there are communal channels for the supply and removal of water. Flood control is only feasible if communal flood control systems are constructed to retain floods.

The foregoing factors have for generations determined the necessity of joint and coordinated development of water control.

Striking examples of this are to be found in the low countries, where flood control and drainage were developed as a communal interest centuries ago and now protect living space for millions of people. Mention must also be made of the extensive irrigation areas, where it has been possible to build up prosperous agricultural regions thanks to a communal development of the water resources.

There are however exceptions to the above rule, notably in areas where the hydrographical and hydrological territorial units are small and the plots of lands utilized are large. In such circumstances all desired measures in the way of water control may be taken within the boundaries of a single farm and independently of neighbouring farmers. The nature of the measures for water control also play a part in such cases. For instance tile drainage and sprinkler irrigation with pumped ground water may often be applied most effectively farmwise, both from a technical and an economic viewpoint. It sometimes happens however that also tile drainage or the pumping of groundwater calls for joint arrangements with neighbouring land users.

The regional character of water control gives rise to the question as to whether the exact extent of water control areas can be indicated. It is not possible to give a general answer to this question. In hilly territory it often occurs that only small areas are covered by one and the same measure of flood control or of land drainage. In estuaries on the other hand – e.g. the Po, Rhine and Scheldt regions – flood control and the appurtenant construction of dikes can only be accomplished effectively when areas of hundreds of thousands of hectares or more are considered as individual units. Extensive areas embracing the land of a large number of holdings are also often involved when works are constructed to divert water from rivers and for the conveyance of water to irrigation areas.

In recent times hydrologists have laid emphasis on the river basin as a regional unit. It is pointed out that in the approach to water control problems the river basin and its hydrologic cycle should be taken as a starting point. This applies notably when the object of the water control is many sided and comprises flood control, drainage, irrigation and also pollution control.

1.2. ADMINISTRATIVE AND ORGANIZATIONAL REQUIREMENTS OF JOINT DEVELOPMENT OF WATER CONTROL IN AGRICULTURE

For joint arrangement of the communal aspects of local water control greatly differing forms of organization have been developed in European countries. Despite this great

difference in form, which is discussed in chapter 2, there is a strong similarity in objectives. These may be deduced from the problems which come to the fore when a number of land owners and land users in an area begin to develop jointly a scheme of water control. These problems relate in the first place to the decision with respect to the execution and the management of the works and with respect to the division of the costs involved. They also relate to the management of the water available for joint use, for instance the distribution of irrigation water. They furthermore relate to the construction of joint works, especially in connection with the acquisition of land required in order that the constructional work can be carried out.

There are four essential requirements for success of joint arrangements for water development and control:

1. Joint development of water control calls for an arrangement whereby decisions can be reached that are binding the minority even when such a minority is opposed to the purposed action. Such decisions may be in connection with the execution of new works and the acceptance of the charges attaching thereto, and in connection with provisions for maintenance and exploitation and the appurtenant expenditure.

Attaching to this majority-minority aspect of the joint arrangement there is an important ancillary aspect. Care will have to be taken to ensure that a minority does not become bound by a majority decision with respect to a matter that is not in keeping with the requirements of fairness and justice. As for instance, a decision which imposes disproportionate high assessments.

There must be a right of appeal to a higher authority which can, if need be, declare the decisions of the majority void or modify them.

2. Joint water control entails expense. Revenues to cover this expense must be raised by the area in question. An important condition for the continued life and success of the local organization is that the expenses must be covered by the parties concerned and that no party can decline to pay.

It is a characteristic of the local organization of water control that there is a direct relation between interests in the work and contribution towards the costs of the works. In many cases water control is a means of increasing the productivity and the value of utilization of the land. For this reason the costs should be spread over the area in question.

If the land serves as a pledge for payment of the costs a sound basis is generally laid for the financing of the joint arrangement.

3. In the majority of cases it follows from the nature of the joint arrangements for water control that it will have to be possible to make regulations or bye-laws with respect to water control. Provisions must be made also to enforce such bye-laws or regulations.

It is desirable that this point be elucidated with a few examples. One might take as a first example the problem of drainage in a low lying region by making use of the existing water courses. In this case the flow of water through these water courses has to be assured. In the drainage system the flow of water must not be interrupted by structures or other obstructions built by individuals. Bye-laws or regulations should make provision for this.

In another case it may be desired to establish a system for the distribution of irrigation water in order to insure that every holding of land can obtain a certain quantity of water at regular times. This may require that there are not any uncontrolled diversions elsewhere. Here too it will be necessary to have a regulation that is respected and which can be enforced when occasion arises.

Another important situation is the regulation of stream pollution. There must be a control of discharges of waste water or of matter which causes too much pollution.

4. Joint water control will almost invariably be accompanied by the construction of drainage and irrigation channels. In the interest of the joint arrangements it must then be possible to acquire the land necessary for the construction of these channels even when the owners are not willing to sell the land which the local organization needs. There is accordingly call for an arrangement which provides for the possibility of the expropriation or compulsory purchase of land.

It goes without saying that such a possibility must be attended with the provision of compensation to the owners of the land, through which channels will have to be cut, for their loss of property and attendant damage.

The four points dealt with above form the most important requirements which the organization of joint water control must meet.

No matter what form the joint scheme takes, provision will always have to be made for these points if water control is to become an accomplished fact.

The foregoing suggests the conclusion that the organization for local water control will be in the nature of a corporation with certain legal powers. The four points mentioned cannot be provided for without charter rights. Other forms of joint organization, mutual contracts and agreements, cooperative society, association, do not adequately provide guarantees for the objects which have been described above as being indispensable for the success of local organizations of joint water control.

2. SOME TYPES OF LOCAL ADMINISTRATION OF WATER CONTROL

2.1. INTRODUCTION

There is a great difference in the form of the local administration of water control in various European countries. Differences in historical and political developments have had a great influence on the administrative organization of water control in different countries and geographical conditions have also been found to play a great part.

For centuries in low lying countries, where habitability depends on communal flood control and drainage, the organization of joint water control has been one of the most important administrative tasks.

In these areas one often finds local districts with a long history and with a strong background of tradition.

In other countries the need of joint water control is often of a more recent date or has been only of significance in areas of limited extent. Consequently the task of administration with regard to water control in agriculture was not developed independently and sometimes has been put into the charge of other and older administrative bodies.

It goes beyond the scope of this investigation to produce a complete survey of all types of local administration of water control, but in the following pages a description will be given of a number of the main forms of local administration of water control. They are divided into public district types and other forms of local administration of water control. Furthermore the division is based on differences in the nature of the local districts, notably their predominantly permanent or temporary character. The description does not deal with a historical-political account of the origin of the various forms of organization, but concentrates on a number of points which are important for the development of an organization of local water control which is sound from a technical standpoint.

It must be pointed out that in none of the countries investigated was it found that private associations, cooperatives or contractual arrangements played a very prominent part in the local administration of water control. One does however find mutual agreements or a cooperative for smaller objects, but not to such an extent as to have much importance as a form of organization for the local administration of water control in general.

2.2. ORGANIZATION OF LOCAL WATER CONTROL ON THE BASIS OF COURT DECISIONS

Historically, neighbours have squabbled about the water for the irrigation of their lands. Also over hundreds of years one land user has caused harm to his neighbours' lands through an excess of water due to the improvements in the drainage system of his own holding. In these conflicts between neighbours it frequently happened that the aid of the courts was sought to establish the rights and obligations of the contesting parties. In such cases the arbiter invoked the provisions of written or unwritten law. Many civil codes contain provisions relative to the rights and obligations of individual neighbouring land users with respect to water.

Civil law may provide for the right to improve the supply of water to or for drainage of water from private lands on the understanding that compensation shall be paid to neighbouring land owners who have to permit the construction and maintenance of irrigation or drainage channels through their lands. Civil law however, does not obligate land users to cooperate in groups in a joint effort to improve the supply and drainage of water with a sharing of the attendant costs.

In some countries the provisions have taken the form of special water legislation complementary to the civil law. Sweden may be mentioned as an example of this. In this country proposals from the parties concerned for joint water control in agriculture are subjected to a 'legal survey'.

The legal survey is carried out by a specially appointed inspector assisted by two trustees. They decide whether there should be joint water control. In so doing they take into account the advantages to be gained, the harm caused to land owners through, for instance, the cutting of channels, and the cost of the project. If the decision of the legal surveyors is positive the verdict of the authorities contains a description of the work to be done and states how the attendant costs are to be shared. The verdict moreover contains, if need be, other regulations with regard to water management in the area covered by the water control. In this way the basis for the local water control is laid. The verdict of the legal survey authorities is binding, but the parties concerned have the right of appeal. In certain cases the legal survey is subjected to an enquiry by one of the Water Courts set up in pursuance of the Swedish Water Act. If it should be found in the course of time that certain parts of a water control project that has already been executed call for revised or new provisions another legal survey must be carried out. The report of such a survey must contain new regulations, a new description of the work to be done and of the assessment of the costs.

Since 1920 some 20,000 legal surveys have been carried out. These surveys were of areas measuring on an average 20–30 hectares. A few of the areas are thousands of hectares in extent.

In the local administration of water control in other Scandinavian countries one finds features which are on the same lines as the solution for Sweden. With this form of local organization of water control the need is met of a decision regarding water control in areas in which a number of land users is located. This also meets the other requirements

referred to earlier, the assessment of costs, the formulation of the obligations of the land users and the acquisition of land for the construction of water works.

It should be pointed out that with this solution the accent is on the single-action scheme and not on the formation of a local body to undertake the development and management of water control as a constant and permanent task. The system seems to fit areas where most problems relating to water control are more of a restricted regional character owing to the nature of the topographical and hydrographical conditions. It should furthermore be pointed out that in the case referred to here the central government does not take the lead in connection with the local development of water resources. It provides the legal framework but does not induce the establishment of joint water control itself. The legal surveys are almost invariably the result of the initiative of parties directly concerned.

2.3. LOCAL WATER CONTROL BY DECENTRALISED GOVERNMENTAL AGENCIES

Apart from the national government the departmental or provincial governments can play an important part in the development of water resources. In many countries more extensive works for water control are being devised, executed and managed by the central and departmental or provincial governments. In these cases one can, often rightly, regard the governments as the representatives of all parties interested in joint water control. The present report is not concerned with water control in very extensive areas, but with local water control, and one may therefore – descending the ladder of State – ask whether the local or municipal governments are not the appropriate bodies for the local administration of water control. The actual position is that the local governments are playing an important part in such administration in only a very few countries. In Turkey they have been active in this respect together with other bodies. In Austria there are cases where groups of local governments have undertaken tasks with respect to local water control. In other countries they undertake the maintenance of some water courses for their account as an incidental task.

Among the advantages of local water control by local governments one might reckon the existence of well developed governmental bodies with – for the larger ones – adequate administrative and technical services. But the drawbacks outweigh these advantages. The most important drawback, which in most cases precludes the local governing council as a governmental body for water control, is that its territory, for instance the municipality, does generally not coincide with the regional unit of water control. A second, very great drawback is that the typical local council works in the general interests of the population, whereas water control is a functional object for which the parties directly concerned can be easily indicated. The spheres of interests do not always coincide, either in the territorial sense or with respect to the nature of the task.

While local governments do not as a rule play an important part in local water control, an active part is indeed played in the local water control by the central government in some countries, without local districts being formed.

This may be the case in countries where the local district is relatively unknown, in Turkey and Ireland, for instance. It may also be attributable to the consideration that general interests are too closely linked to a well functioning local water control. This is the case in Israel, where the sparsely available irrigation water must be utilized as rationally as possible. After the flood disaster in the Netherlands in 1953 there were many suggestions throughout the country advocating that in the low lying regions the flood control by means of sea dikes should be handed over by the local districts to the central government. After lengthy discussions, however, it was decided to leave the management of the heavy sea dikes to well organised local districts.

Generally speaking it is thought that there are drawbacks attached to local water control by the central government. It is difficult to have the interests of a specific local nature treated by the administration of the central government. All kinds of problems related to minor local improvements, maintenance questions, etc. soon give rise, in a national government service, to reports which have to follow a long and time consuming course before a decision can be taken. This can perhaps be avoided by drastic decentralisation of the relevant government agency, with greater powers being accorded to the heads of the local offices of the agency. This however still leaves the drawback of transfer, which, in the case of some officials, is fairly frequent. Finally there is the great drawback that the parties concerned in the local water control cannot easily make their interests known at administrative level.

An exception to these views must be made with respect to big and comprehensive projects in sparsely populated areas. If the government carries out such projects it will also primarily provide for the local administration of water control. In a later stage the works can be handed over to private land users and the water control can be entrusted to public districts.

This arrangement is found, for instance, in the reclamation scheme of polders in the former Zuiderzee in the Netherlands and in those areas in the United States of America, where big irrigation projects are being executed under the Reclamation Act. Greece might also be mentioned as an example. In these circumstances the central government rightly undertakes the preparation and execution of the projects and later on hands the exploitation and management of the completed project of water control over to local districts.

2.4. LOCAL ADMINISTRATIVE BODIES OF A TEMPORARY CHARACTER

In many countries a special type of local administrative bodies for water control are of the public district type but have as their sole object the obtaining of a vote of the parties concerned on some joint works of water control. An example of this is found in Luxemburg, where very many of such local districts were called into being by virtue of an act dating back to 1883. The local district is set up when more than half of the owners holding more than two thirds of the area, or more than two thirds of the owners holding more than half of the area vote in favour of a local district. Those who fail to vote are regarded as being in favour. The ballot is held after a preliminary project of the water control to

be carried out has been designed and has been discussed with the parties concerned and after an idea of the cost is obtained. Project designing is done by a governmental agency, which also supervises the execution of the project.

It is therefore true to say that a ballot is taken with regard to the setting up of a local district, but the accent is, strictly speaking, on the vote regarding the project. The local district is a body instituted for a single consultation, and it loses its significance rather soon after the decision has been made. This system is found in many European countries in connection with another form of development of land and water resources, to wit reallocation as a solution to the farm fragmentation problem. The legislation governing these public districts contains provisions regarding the assessment of the costs and the acquisition of land for the execution of works.

It is noteworthy that in these cases evidently no great need is felt for a permanent local management of water control. This is clear from the fact that a new local district is set up when after a number of years in the same area a new project, for instance for the further development of water resources, is contemplated. It is obvious that in these circumstances the maintenance of the existing works will suffer. We therefore find in Luxemburg that local governmental councils provide in general for the upkeep of works in the field of water control.

2.5. LOCAL ADMINISTRATIVE BODIES OF A PERMANENT CHARACTER

In most European countries there are local districts of a permanent nature. The simplest form is the one based on voluntary cooperation on the part of the parties concerned. Such organizations are found in many countries, but no great importance can be attached to them. The district with voluntary cooperation is as a rule confined to very small areas and to only a small number of participants. The vast majority of the districts – practically speaking nearly all local districts – are in the nature of a corporation of public right. As a result of this decisions passed by a majority can be carried out, measures relating to the management of water control can be put into effect, etc.

The principle of joint management implies a certain limitation as regards the extent of the area covered by the cooperation. As a rule the smaller the area covered by an association of interested parties the greater the cohesion within the organization. This factor has undoubtedly played a great part in connection with the formation and limitation of local districts. It is still reflected in the very many relatively small districts which exist in a number of countries.

In Austria and Switzerland there are many thousands of drainage and flood control districts in sizes measuring 100 to 1000 hectares. Germany reports 16,000 and the Netherlands 2,300 districts.

This aspect in organization may be in conflict with the necessity of planning and executing one project in the field of water control for a larger area on the basis of technical considerations, as for instance flood control for extensive areas, pumping for drainage for large

low lying areas or the supply and distribution of irrigation water over large dry areas. In such cases the unit of area which is desirable or perhaps even necessary from a technical standpoint may be many times larger than the unit of land which from a viewpoint of organization and history would appear to be the more desirable. This problem has been solved in some countries by setting up coordinating public districts which are supported by the smaller local districts and which look after the joint interests in the larger area. There are examples of this form of organization to be found in the Netherlands and in Germany, where one finds districts of more than 100,000 hectares.

One specially important factor in setting up local districts of a permanent character is the nature of the water control. If not only the project construction but also the maintenance and management play an important part in this connection the districts must continue to function after the works have been completed.

This is true in areas where irrigation water has to be distributed. Spain, Italy, Cyprus and Greece have long had water control districts with a permanent task. The same applies to countries where water control consists of draining excess rainfall by pumping. Many examples of this are found along the North Sea coasts. The same applies where flood control is accompanied by comprehensive and the ever recurring maintenance work on embankments and dikes which are exposed to attack by the strong currents and rough seas.

Great importance must be attached to the aforementioned public districts. For centuries past they have played an important part for the community in extensive regions in Europe either because they make the countryside habitable and ensure the permanent use of land by means of flood control and drainage or because they maintain the conditions for a prosperous agriculture by their management of joint irrigation.

2.6. RECENT DEVELOPMENTS IN LOCAL ADMINISTRATION OF WATER CONTROL

Noteworthy developments have taken place in the course of this century in the field of local administration of water control. These developments have come about mainly through the tension between what could be achieved by joint action on the part of interested land owners on the one hand and what was found to be desirable in the light of technical progress on the other.

It was pointed out that cooperation on the part of those concerned implied a certain limitation of the area to be covered by the joint action. It is easier to organize a joint action of land owners who live at a short distance from each other than it is to arrange collective activity on the part of land owners who are dispersed over a wide area.

It is however becoming more and more evident that modern technologies present possibilities that can be taken advantage of, and also make demands that can be met only when large areas are regarded as one unit.

The diversion of water from rivers and above all the construction of reservoirs for irrigation water often calls for a small number of extensive works by means of which large areas can be

supplied with water. A method of joint water control must then be devised for these large areas. Another example is flood control by means of sea dikes, where very often tens of thousands of hectares of land are involved. Since the weakest spot in such a dike determines the strength of the entire dike in the same way as the weakest link is decisive of the strength of the entire chain, the whole of the protected area must be regarded as one unit where the maintenance and eventually reinforcing of the dike is concerned.

One comparatively recent feature in the field of water control is the attempt to counteract the pollution of water courses. If this is to be undertaken with a reasonable chance of success the entire system of a stream, the river itself with all its tributaries, must be regarded as one entity. Then it will be possible to devise a plan which provides, for instance, for discharges from a number of sewers to be treated in one purifying plant, for full use to be made of the self-purifying powers of the water courses and, if need be, for discharges of waste water which is not easily purified to be concentrated in certain sections of the area.

In this connection the need to start water control with the river basin as unit area is of vast importance. In hydrological investigations the river basin is taken as an indivisible object, involving its run-off problems, its irrigation problems, its flood control and water storage aspects, supplemented nowadays with its quality aspects. All these must be studied collectively. Works in the field of water control executed in one part of the river basin, in many cases affect the water conditions in other sections of the river basin.

Mutual local cooperation of the participants concerned is subject to tension and outside influences also in another respect. Nowadays governments are striving within the framework of a national water policy to develop water resources to the full. In so doing they also wish to stimulate local activities, on the one hand in order that full advantage be taken of modern technical developments in the field of irrigation, flood control and drainage and on the other to induce new tasks, for instance quality control. Central governments on the whole now tend to lay down requirements, in the public interest, with respect to the effectiveness with which local bodies develop the local water resources, and they wish to impose new tasks on these local bodies.

In Spain legal measures were taken in 1926 and 1947 to set up public agencies for very large areas with the object of coordinating and developing water control per river basin. The new bodies, which do not replace the local water districts, are charged, among other things, with the distribution of the water from open water courses and the supervision of the use of such water.

In Italy an act passed in 1928 provided for a coordination of forces, with the result that there are now only 340 districts controlling 16,000,000 hectares. These large and consequently powerful districts have their own administrative and technical services, which look after the development and management of water resources in their districts. To a great extent the districts depend on the government for the financing of the work to be undertaken. There is close cooperation with government services when new projects are started in the districts. Some districts also have a task in connection with erosion control in hilly sections situated upstream within the river basin.

In England and Wales the River Boards Act of 1948 has made it possible through the setting up of River Boards to concentrate in a limited number of new authorities the related functions

of land drainage, prevention of river pollution and fisheries. Speaking more broadly the task of the Boards is to conserve, as far as practicable, the water resources of their areas. The River Boards are entrusted with the supervision of the old (internal) drainage boards, in so far as their functions have not been transferred to the River Boards.

In France an act passed in 1951 provides for the establishment of authorities which acquire powers, in areas indicated by decree, to carry out a general program of irrigation, reclamation and agricultural reorganization. This is therefore a scheme on a regional basis which includes the development and management of water control, but which furthermore aspires to influence directly certain aspects of economic life in the region concerned.

In the Netherlands there has been a steady pressure to unite small water districts to form larger, hydrographically determined, units. Moreover, in parts of the country a few large water districts have been established and allotted the task of quality control per river basin. Under the influence of the flood disaster in 1953 the authorities have been endeavouring with greater energy to unite small districts.

In Cyprus Water Development Committees can be set up, in pursuance of the Water Law of 1955, for certain areas in which it was considered necessary to secure more effectively the conservation and use of water resources. The Committees have powers to execute works, to make an assessment of costs and other powers already mentioned in connection with joint water control. So far only a very limited use has been made of these powers. The object is however clear: the government can by setting up a committee promote tasks which are at present not or only inadequately performed by the local water districts.

In Germany a new Water Control Law came into force in 1957 which was designed to promote complete development and an economic use of water resources. Mention must be made of a few very large water districts with special objects, such as water control in industrial areas. These water districts – in a few cases larger than 200,000 hectares – have been functioning for a number of years.

New developments are likewise to be seen in other countries or studies are being made of the subject matter.

In Yugoslavia the authorities are considering the feasibility of extending the task of local districts so as to include erosion control and soil conservation.

In Sweden and Denmark the authorities are wondering whether it would be desirable to introduce legal regulations with regard to the pumping of ground water for irrigation. In Switzerland cantonal governments are studying changes in the laws governing the local administration of water control.

Finland is faced with great difficulties in the management of water, due to the manifold uses of water for instance for generating energy and for floating lumber, and the significance of water control in the light of flood control and drainage. The possibility is being considered of setting up local water boards with powers to spread the costs of the works over all parties concerned. Also it is being considered to entrust the management of open water and of ground water as well as the control of water quality to the boards.

Greece is considering the institution of government bodies to coordinate over extensive areas existing local districts and to undertake the management of important works. Israel is aiming at the coordination of a number of incidental acts so as to form one general water law. In Turkey a bill is being debated with a view to according broad powers for operation to legal

districts which do not as yet exist. Ireland intends to place all rivers under the jurisdiction of regional bureaux of the Office of Public Works as provided in the Arterial Drainage Bill.

All these developments leads one to conclude that the governmental authorities are trying everywhere to bring about the further development of local water resources. In this endeavour local water control is left in some countries in the hands of local public districts, but attempts are being made, by means of a process of concentration, to transform these districts into bigger and more efficient administrative bodies. One also finds in these countries an effort to charge the districts with additional tasks for instance in the field of quality control.

In other countries one finds new administrative bodies which are vested with the powers of joint water control per river basin or group of river basins. These bodies are established by the central governments as new governmental authorities. They do not originate directly from previous organizations of land owners or other parties concerned. Sometimes the task of coordinating existing local districts is given to these new authorities. Generally it may be concluded that there is a tendency to enlarge the unit area of local water control and to broaden the task of the water control bodies.

3. THE LOCAL PUBLIC DISTRICT

3.1. INTRODUCTION

Local administration of water control is entrusted in many countries to public or legal districts with the parties concerned themselves jointly looking after the development and management of the communal aspects of local water control. Since these districts play an important part in water control a separate chapter will be devoted to them. In this chapter will be discussed the way in which the local districts are built up, the internal organization, the financial aspects and the relations with the central government. It is not the intention to give a uniform and detailed guide for the establishment of these districts. It would seem more advisable to enumerate the more important applications for the said aspects and to sum up briefly any definite advantages or drawbacks attaching to certain solutions that are sometimes adopted.

If a tentative definition is wanted it may be said that: a public district for local water control is a corporation of public law uniting parties interested in water control and binding those concerned with respect to the interests taken care of by the districts.

3.2. LEGAL BASIS

Local bodies for the administration of water control aim at a regulation of public right for joint water control by the parties concerned in a given area. It goes without saying that there must be a legal basis which provides for the institution of such districts and which provides for the powers accorded to them. These powers relate to the implementation of resolutions passed by a majority, to the assessment of costs, to the establishment of bye-laws for the management of water control and to powers to acquire property for the construction of water control works. As a rule legislation will deal with such points in a general sense. In many countries a general law gives the framework within which the establishment of local districts can take place.

The institution of the local bodies is left to special acts, decrees or to the decisions of departmental or provincial governments. Then the various aspects which often differ

from district to district can be laid down in the resolutions by which the local district is constituted. These aspects comprise, for instance, the task, the demarcation of the area over which the costs are to be spread, the composition and the appointment of the board and the regulation of the assessments.

An important point is, should the establishment of the districts be dependent on a majority decision of the parties concerned or should they be established by a higher authority, eventually after consultation of the parties concerned. Both systems occur. If the district aims at the execution of a certain work and if the water control is, in effect, confined to the execution of this work there is much to be said in favour of allowing these concerned to vote on district and project. A plan of the project must in that case be designed and an estimate of the costs drawn up before the vote on the district is taken. Another procedure is desirable in cases where the development of water control will be planned after the district is established and after the district has equipped itself with staff etc. When such a district is formally established some or other form of consultation with the parties concerned is sufficient, it is not necessary to take a vote.

3.3. FUNCTIONS

Historically drainage, flood control and irrigation have been prominent among the functions of districts for local water control. Technical progress during the last century has, however, also given rise to other interests for which joint development and management are desirable.

We have already seen that pollution control has been added to the functions of local public districts in a number of countries. The local districts have sometimes also a task to perform in connection with salinity control in coastal zones and in irrigation areas.

It is characteristic of the older districts that they deal mainly with surface water: the conveyance of irrigation water via open channels from rivers and streams to private lands, the removal of excess rainfall by means of ditches and channels, the protection against the flood water from the sea and from rivers. There is, however, also a need of joint action with respect to the ground water in those areas where ground water is used on a large scale for irrigation purposes. This need has already resulted, in the U.S.A., for instance, in the establishment of public ground water districts. These districts may lay down rules and regulations with respect to the management of the ground water, notably in order to counteract an excessive drawing off of this water. They may moreover construct joint works and spread the costs over the parties concerned. There are also other ways in which it may be desirable for the public districts to engage in subterranean activities. Drainage by means of joint water courses need not be limited to open channels; it may be desirable for various reasons to effect drainage partially via subsurface pipe lines through the properties of different land owners.

Consideration must be given to the question whether a separate district must be set up for each function or whether one district may have several functions. There is nothing against numerous functions being performed by one district. Generally speaking one

might even say that all aspects of water control which are more or less functionally connected in a given area should be taken care of by one district in an integral and comprehensive approach.

In this way the situation may occur that in one district the entire area is involved in a pollution control scheme, but that only a part of the area is interested in flood control, whereas only relatively small areas are interested in drainage with pumping stations. In former times this would have led to the formation of three separate districts with different functions and different areas. Nowadays one district is preferred because the functions are often interwoven from a hydrological point of view and because of considerations in the field of organization. In both the technical and the administrative sense a large district has definite advantages.

In a few countries the districts are also given tasks connected with erosion control in hilly or mountainous regions situated upstream. Also in such a situation the functional connection between the water control of the several parts of a river basin is evident.

In chapter 2 we saw that there are districts whose functions are confined to the construction of works and to the division of the costs of the projects, sometimes of a single project. It is, however, clear that if a district is to work effectively for the local water control the functions must comprise not only the construction, but also the maintenance and the exploitation of water control, in short its entire development and management. Only then will the area be able to derive full benefit of the water control and, in the course of time, be able to adapt it to new agricultural and other requirements and to new technical possibilities. Water control is seldom a matter that is completed when once a project has been carried out.

Change in land use, for instance, through intensification necessitates a more exact control of the water table in drainage districts. Progressive mechanisation of farming may make it necessary for tertiary channels to be replaced by underground pipe lines. Generally speaking one may state that the development and management of land and water resources calls for an unceasing concentration of attention, also where local water control is concerned.

In the light of the foregoing we arrive at the following general qualification of the functions of public districts for local water control: the development and management of water resources within the river basin including surface waters and ground water and including the quantitative as well as the qualitative control.

It is well to realize that this is an ultimate aim. For the time being however this description of function is too general. In view of this it must be observed that it is desirable that the functions of a district be clearly defined in the resolution to establish a district. The districts have the power to make bye-laws which affect the interests of individual persons, and therefore it is essential that a clearly defined legal basis exists in this respect. There is, however, yet another reason why the functions should be clearly defined. In most countries the districts have a self-governing character, thus a high degree of independence. It may, however, occur that from the point of view of national water policy a district

does not sufficiently look after the interests for which it was created. In such a case it is desirable that a stimulating influence can, in some way or other, emanate from the central government. It should be stated that if the central government is to take effective action the task of the district should be clearly defined in its regulations, so that there is no argument about its responsibilities. Still another and equally important reason for a clear definition of responsibility in the charters and bye-laws of local districts is that all water management functions, in the programs of both the central government and the districts, are for the purpose of benefiting the peoples whose interests they affect.

Therefore, should the people having such interests find it necessary to take effective legal or administrative action which may affect either the government or the district, it is necessary that the powers and responsibilities of both be clearly established.

Finally a short remark about a limitation of the functions of joint water control. The activities of the districts extend over the joint works and joint interests; they do not include water control on individual farms. The district may, however, introduce measures with regard to individual water control works if such works threaten to affect adversely the joint water control.

As an example may be mentioned the wasteful use of irrigation water by individual land users. The district may also introduce regulations in drainage areas in connection with drainage ditches within the lands of individual properties if such ditches are of any significance for the discharge of water from lands of neighbouring land owners.

3.4 ORGANIZATIONAL STRUCTURE

Regulations

As a rule a national law defines the general object of the districts, that is to say all that the various districts have in common, such as form of management, powers to levy assessments, powers to acquisition of land, powers to enact bye-laws, etc. The establishment of each district is in most cases based on a special enactment or decree. Its content can then be adapted to the nature of the area in question and the object of the district concerned. These special aspects, which differ from district to district, are defined in the regulations of the district. They lay down the functions, the composition of the board, the system for spreading the cost, etc.

Board

The task of the board comprises the continuing management of the functions of water control, the preparation of new projects, the establishment of bye-laws, etc.

As a rule the boards consist of five to ten members, who are generally elected by the parties concerned. In districts with greatly differing areas or with manifold functions an effort is frequently made to bring the composition of the board into line with these variations. For instance in a district which has a task in the field of flood control and

drainage, as well as in pollution control a number of board members may be drawn from the circle of land owners (with a view to drainage and flood control), a number from the circle of the municipalities in the district (with a view to the interests of the residential areas in flood control and pollution control) and a number from the circle of the industries in the district concerned (also for flood control and pollution control). In larger districts it is desirable to have board members from the different regions within the district area.

In some countries the chairman is nominated by the central government to ensure that the leading figure is above all the interested parties. This need not be a rule. Generally speaking all members of the board have equal voting rights, irrespective of the extent of the interests they have in the local district or represent in it.

General assembly

The task of the general assembly is the election of the board and the passing of resolutions on the works to be constructed. It may be said that the general assembly decides on proposals of the board, the broad outline of the policy to be pursued, the board sees from day to day that the policy is carried out. The ideal situation is one in which all the parties concerned are directly participating in the functions of the general assembly.

In a drainage district all those concerned with the land may be termed interested parties; whether they are land owners or tenants, whether their interests are great or small. On the whole however one finds that the general assembly is confined to land owners. Water control is regarded as an aspect which determines the value of the land and as such it is the domain of the land owners. That the participation in the district is confined to the land owners is moreover obvious in regions with many tenancies and a more or less frequent change of tenants. In general the tenant will not take any measures with regard to the productivity of the land by flood control, drainage channels or pumping stations, that will extend in their effect or their costs over a period longer than his rental period. And yet it must be observed that in some countries tenants are now very gradually being brought into the general assembly because efficient management of water control is of the utmost importance also for them and because they become gradually willing to share the cost of water control schemes. There are instances where the tenants contribute the costs for maintenance and exploitation of water control structures.

The next point is how interests are reflected in the voting rights. As a rule, in drainage and flood control districts as well as in irrigation districts the number of hectares is taken as the basis of the voting rights. In areas, however, where there are throughout the district great differences in the interests attaching to water control, the voting rights are regulated according to the extent of the benefit of water control. Since the assessment of the costs is often directly related to the extent of the interests, in those cases the voting right of each landowner can be made proportionate to his share in the cost. For administrative reasons it is usually not possible to grant a right to vote to very small areas or very limited interests. In order to ensure that the majority of the votes do not get into the hands of

one or of a relatively very small group of parties with large interests in the district, a certain restriction is applied to the voting rights as the interests per participant become greater.

In some countries interested parties are granted voting rights in proportion to their interests in water control only when a ballot is taken in connection with financial matters. When the ballot relates to the election of persons, notably board members, each individual has only one vote.

It has already been pointed out that there are also voting procedures in which the decision is dependent on a certain combination as regards the number of votes and the area, or interests, represented by these votes.

In the case of irrigation the extent of each person's voting rights is often dependent on the quantity of water which interested parties can claim.

In large districts with many interested parties it is extremely difficult to make a general assembly function properly. In such circumstances the number of members of the general assembly is limited. The members are then elected from and by the interested parties per sub-district. If the task of the district entails the representation of towns and industries as well, municipalities and industrial organizations, for instance chambers of commerce, are allowed to nominate members of this assembly. It goes without saying that the ratio of the number of representatives of land owners, of the towns and of the industries to one another as well as their election or nomination must be laid down in the regulations of the district.

Bye-laws

Bye-laws often play a great part in the organizational structure of a district. In drainage districts care must be taken to ensure effective maintenance of the drainage channels including the smaller ones which are frequently situated within private lands but which are often of importance for the discharge of water from neighbouring lands. In irrigation districts the distribution of the available water must be regulated and there must be rules to prevent uncontrolled use of water. In districts where there is pollution control rules must be laid down with respect to waste water disposal; it must be possible to have waste water outlets subject to certain terms. These are vital points in the local administration of water control. As a rule the committees of the local bodies have powers to enact bye-laws to regulate the above-mentioned aspects. In general such bye-laws do not become effective until they have been approved by some higher authority. The act of approval is preceded by a period during which the bye-laws are made public and anyone who has objections to it may appeal to the aforesaid higher authority. This procedure is prescribed to ensure that bye-laws contain no regulations which might be prejudicial to the interests of some third party.

This can be illustrated with an example. In drainage districts it may happen that the owner of a water mill keeps the water of a stream at a level which is undesirable for the agricultural use of lands adjacent to the stream. This manipulation with the water table by the miller may be

based on some ancient rights. The district in which the land owners have a voice would be only too glad to enact a bye-law prohibiting the possession or erection of obstacles in water courses – including water mills – or making such possession or erection dependent on a permit, possibly subject to certain terms. It will be clear that in such circumstances a proposed bye-law should be made public so as to give everyone – and thus the miller – an opportunity of raising objections to it before it comes into force. A higher authority must then decide whether an ancient right can be revoked or whether the owner of the water mill should be compensated in some way or other when he is deprived of his right by the bye-law and its application by the board of the district.

If the bye-laws are to be effective it is essential that the boards of the districts have powers to see that they are observed and that they take action when something is done contrary to the provisions of the bye-laws. Such action may consist of the imposition and collection of fines or it may consist of the board having the work done for the account of the defaulting party for instance with regard to maintenance of main drainage ditches.

Registers

Drainage districts are often established in regions where some of the drainage channels are within the boundaries of private lands. It is in such cases desirable that an official record be kept in a register showing the measurements to which the channels must conform and the names of the persons responsible for their maintenance. The same applies in the case of districts, entrusted with flood control, to small dikes which have formerly been constructed on land belonging to private land owners, without this land being conveyed to the district. In every district it is important that a list be kept of those works that are of communal importance and that are not property of the district.

Also with such registers the rights of private persons are involved, and there should be provisions for some process of approval and appeal to ensure that existing rights are not unfairly harmed by the establishment of the registers.

Staff

Many old districts are founded on the cooperation of a limited number of land owners in a restricted area. When the districts were being established the participants elected a committee which, on the basis of the empirical knowledge prevailing at the time, itself considered what measures ought to be taken. Usually a part-time official was engaged for the administrative work. If structures of any extent had to be designed the services of a consulting engineer were acquired. For the rest, the committee members themselves decided all aspects of the management of water control in their district. It will be clear that the old districts in this way became centres of managerial activity, in which persons with authority and capability, good judgment and experience had an opportunity of coming to the fore.

The possibility of basing water control on good judgment and experience gradually decreased when scientific research made available an increasing number of solutions for

technical and hydrological problems and when the task of the districts became more and more extended. This gave rise to the need of setting up a permanent technical staff. There had already been a similar trend in respect of the administrative task, in which connection a knowledge of legislation had long since formed an important feature. Technical and administrative staffs have to be created to advise the board, it goes without saying however, that the ultimate decisions in matters of water control remain with the board and the general assembly.

This increase of staff naturally occurs most rapidly and easily in the case of large districts. There are countries in which in addition to the chairman of the board the heads of the administrative and technical departments play a prominent part not only in the district but due to their technical and social standing also in other circles of the community. Often only persons with a thorough training in administrative or technical fields are selected for such functions.

The position of smaller districts is clearly unfavourable in this respect. They have not the financial means to build up a staff of any importance. In many countries it is because of this that an effective development and management of water control on the part of the local districts is severely hampered. In certain countries we find, on this account, an endeavour to merge the small districts so as to form a limited number of larger districts; an endeavour which is desirable for other important reasons as well.

In a number of countries the need of staff assistance is met by governmental agencies – either from the Ministry of Agriculture or from the Ministry of Public Works – which afford assistance via their local offices. Although the technical efficiency of the local water control can be promoted in this way it seems undesirable for organizational reasons. In this situation the government officials concerned have to obey two masters, the government and the district. Moreover their personal link with the region is weak to a certain extent because they are liable to be transferred within the government service to other positions. If really a good staff in a large district is wanted the board and the general assembly should not be deterred by the attendant cost. In some cases this cost may even represent a rather high percentage of the total budget of the district.

Mention must also be made of the type of training of the staff. The administrative staff should above all be acquainted with district legislation. A primary requirement of the technical staff is that they should be capable of designing structures in the field of water control. For special works, for instance the design of large and special structures or of pumping stations, the help of consulting engineers is generally enlisted. As the task of the districts becomes manifold and the insight into water control becomes more developed, problems connected with plant-water-soil relationships come more and more to the fore in the work of the technical staff. Attention must also be called to the problems of quality control. The technical staff should be adequately informed on these aspects. An important item in this connection is the system of courses organised in some countries to specialize administrative and technical personnel of districts for their tasks and to acquaint them with new techniques and with the advance of knowledge in these fields.

3.5 FINANCIAL ARRANGEMENTS

The financial arrangements of districts relate in the first place to the purposes for which money must be laid out and, further, to the ways and means of obtaining the money to cover this outlay. As regards the latter aspect, the basis of spreading the costs over the parties concerned is a main point.

The greater part of the expenditure is generally accounted for by the construction of water control works. As a rule such works are of a durable nature. In view of this it would seem natural to defray the cost of works of this kind from loans which have to be partly redeemed each year and on which an annual interest is due. The maintenance and exploitation of the works call for annually recurring payments, the same applies for the cost of the administration of the district and the salaries of the personnel. Sometimes water rights have to be paid for.

The finances to defray the expenses may be derived from a number of sources. It goes without saying that it is generally very attractive for the district when government subsidies cover part of the expenditure. In many countries the government does indeed take a great part of the cost of constructing works for its account. Governments contribute to the costs of local water control on the basis of the benefit of drainage and irrigation for the economic welfare of the community and on the basis of the benefit of flood control for the safeguarding of lives and goods. However, in general a large part is to be paid by the parties concerned.

The loans for the execution of works of a durable nature constitute a second source of procuring money to meet expenses. As a rule the districts have no access to the stock market, but they can often obtain money from special banking institutions, from which municipalities, for instance, obtain also their financial funds. The period for which the loan is contracted depends on the nature of the works constructed. Generally it is desirable to redeem a loan within fifteen to thirty years, even when it relates to such durable works as newly cut channels. The reason for this restricted period is that after some time a revision of the entire system of water courses, might be considered necessary. This can be due for instance, to changes in the use of the land or to the planning of irrigation systems in areas where there had previously been felt only the need for drainage.

The amount to be redeemed and the interest to be paid each year must be covered with the assessments collected from the parties concerned. The amount thus collected each year likewise serves as coverage of the cost of maintenance and exploitation as well as of the cost of administration. It is of course possible to bridge the period between spending and collection of dues by means of a loan in cash. In certain cases districts have special incomes because they act as holders of water rights.

The spreading of charges forms a specially important point. It may be presumed that the credit rating of the districts is dependent on the effectiveness of the levy of dues. The assessments should be spread over the parties concerned on a fair and just basis. More-

over, in the interests of efficient management the method of assessment should be on simple lines.

The basis on which the assessment of the costs is determined is generally the interests of the parties concerned in water control. These interests can be of a very divergent nature. In irrigation areas it may be a question of the quantity of water supplied. In that case a distinction is often made, when the dues are levied, between the charges originating from the construction of the works – these are generally assessed according to acreage – and the other charges of the district, which are calculated on the basis of the quantity of water consumed. In drainage districts the acreage is often taken as the basis for the calculation of the assessments, unless the lands have greatly divergent interests. In that case the lands have to be classified, with the benefit of the water control serving as the basis of the calculation. In a few cases the value of the land as expressed in the taxable yield of the property forms the basis of the classification. In cases where flood control is the object of the district, a classification should be made according to the importance of the flood control works for the parties concerned. This latter condition implies that in areas where flood control is important the cost is also spread over structural immovables and possibly over roads, railways, electricity works etc. In the Netherlands it became very evident during the flood disaster in 1953 how very greatly flood control affects many sectors of the community.

Dues are levied not only because of the interests involved in the works constructed but also according to the extent to which certain lands make these works necessary. We have in mind high lying lands which are not benefitted by improvements of drainage in the low lying lands, but which have contributed, for instance by reclamation of waste lands, to the excess of water in the lower areas of the district. One might also consider districts which have the task of pollution control and in which the levy of charges is calculated on the extent to which polluted water is discharged into the water courses of the district.

The above bases for the assessment of costs must be elaborated further to make it clear whether the landowners or – in the case of leasehold land – the tenants have to pay the dues. In most cases we find that the charges are levied on the land owners for the following reasons. In the first place there is a material connection between the water control by the district and the value of the land. The works belonging to the district may be regarded as an inherent part of the land and does connect the land owner to the district and to the costs. In the second place collection of the charges is more certain from the land-owners than from the tenants since the latter generally have only movable goods to offer as security. Thirdly, the tenants cannot usually make decisions with respect to works that are of a durable nature, as they are not certain that they will continue to use their leases for any length of time.

Nevertheless, there seems to be an increasing possibility that certain expenses will be charged to the land users, irrespective whether they are owners or tenants. This refers particularly to the cost of exploitation and of maintenance of the water control system.

It goes without saying that regulations for the levying of the assessments should also contain provisions which ensure the collection of the taxes.

3.6 RELATIONSHIP TO CENTRAL GOVERNMENT

In many countries there is a close relation between the central government and the public districts for the administration of local water control. There is a great diversity in the nature of the links between the central government and the local districts.

The central government prepares and enacts the legislation which provides the possibility of creating local districts. In most cases this legislation indicates the government authorities which have the power to create such districts and which determine the functions of these districts. Moreover, these higher authorities are often vested with the power to examine and approve the bye-laws and the registers after they have been prepared by the boards of the districts.

If the higher authorities institute districts they therewith create more or less autonomous governmental bodies which can pass within the field of water control numerous decisions imposing obligations on private persons or granting them privileges. It goes without saying that the central government reserves to itself the right to see that the local bodies do not abuse these large powers. This supervision is evidenced in the function of the higher authority as the appeal agency with respect to decisions passed by the district. It is also evidenced in the supervisory part played by the central government in connection with the observance of administrative and financial regulations. The central government can therefore be regarded as keeping a watchful eye on the rights of the individuals in the districts. The appeal agency may be a higher authority, a judicial body or an institution with administrative legal powers specially created for the purpose.

In some countries the central government also has a task in the public interest with respect to the various districts. In former times districts were left a certain amount of freedom in their activities in the field of water control. Each district, it was argued, had the water control it deserved through its own activities. Nowadays, one sees more often that the central governments are actively promoting in the public interest an effective development and utilization of land and water resources. Within the framework of the national water policy the local districts have to contribute their specific part. The programs of both governments and local districts, in respect of water control, exist to serve the welfare of the people whose interests are affected and who authorized such programs in the first instance. Thus the central governments should have powers, given to them by the people, to supervise and assist local districts in the public interest.

A striking example of this is to be found in those areas where dikes along the sea coasts and the rivers are of special importance for the safety of the population. For such areas higher supervising authorities will generally lay down stipulations regarding the measurements and the height of the big dikes. But more and more the government is stipulating that the local districts must perform their tasks also properly with respect to drainage and irrigation and to control of pollution of surface waters.

If one desires that the central government be enabled to perform this task the legislation of the country in question must provide that a higher authority can take action when the districts are not sufficiently active. In extreme cases of default it must be possible to empower a special commission to carry out the desired improvements, to construct works and spread the cost over the parties concerned. It requires great tact on the part of the central government to stimulate local districts in their activity on the one hand and on the other to restrain them from adopting a passive attitude because the drastic action on the part of a higher authority has rendered them local subsidiaries of the central government.

When one considers the facts it will be found that in most countries the strictest supervision is exercised over the finances and the administration of the districts. In a number of countries the governmental agencies moreover act as technical advisers of the districts. In a few countries the central government is so closely linked to the local districts through very high subsidies that these districts can indeed be regarded as subsidiaries of the central government. In some countries the central government lacks the power to exercise any influence on the policy of the districts in the technical aspects of water control. There is a special problem in places where water courses extend over the frontiers of several countries. A number of measures in the field of water control must then be contemplated and carried out as a whole, but it is practically impossible to ensure administration of the scheme as one unit. In such a case the central governments concerned have the task of devising a coordinated plan for water control for the two parts which are separated by a national frontier.

4. THE EFFECTIVENESS OF LOCAL ORGANIZATION OF WATER CONTROL

To ensure that the joint aspects of local water control are properly looked after it is necessary to have corporations which can make decisions about works and implement such decisions, which can spread the cost over the parties concerned, which have the power to make bye-laws containing regulations for the management of water control and which can acquire titles to land for the construction of works. If such local corporations are established in the form of public districts as described above one important aspect of this is that the communal interests can be looked after jointly by the parties concerned themselves.

In exceptional cases where only a small number of participants are brought into a joint scheme – mostly in rather small areas – it is possible to dispense with the formation of public districts. The desired scheme can then be realised by laying down the rights and obligations of the parties concerned in a binding legal verdict given by the proper governmental authority. Here we refer to the ‘legal survey’ and the decisions of water courts mentioned in chapter 2.

The local public district based on collective activity presents great advantages. The district canalises the requirements for water control which are to more or less the same extent felt by a number of parties in a given area. The district makes it possible for those concerned to make decisions with regard to the development and management of local water control, and in doing so participants can weigh themselves the expected benefits of water control against the costs.

It goes without saying that the joint object means more to the parties concerned according to the extent to which their interests in water control coincide. This applies for instance to the equal interests in drainage and flood control of all land-owners in low lying regions or to the use of irrigation water in a dry region. The joint character will make itself clearly felt if the area of water control is homogeneous and not extensive. Take, for in-

stance, valleys in mountainous districts, areas adjacent to rivers, or islands in estuaries. The collective aspect is however not felt so strongly by parties concerned if the interests of the several parties in the district greatly differ in character. This may be the case, for instance, in the example already given of a district in a river basin where pollution control is important for the entire area, but where flood control is practised only for a part of the basin, while pumping for drainage applies only to small sections of the district. For a limited number of the parties concerned such a district affects essential interests both as regards safety and prosperity. For a greater number of the parties concerned the function of flood control is of great importance, but the district does not play a very important role in the daily activities of these parties. Pollution control is of importance for all, but on a plane which does not affect their safety or their economic prosperity although it does affect their general well-being. It must furthermore be borne in mind that pollution control often causes differences between the many who advocate the system, and the so-called polluters who are frequently called upon to contribute towards the costs of the sewage treatment without their industrial activities deriving direct and important economic benefit from it.

The link between land and district which plays such a great part in the history of the local districts for water control does not, in many large districts with manifold objects, constitute any longer the only element linking the parties concerned to one another and the parties concerned to the district. Various other elements enter into the scheme and thus tend to weaken the communal link as far as organization is concerned.

Moreover when on hydrological and administrative grounds large districts are chosen, the sentiment of collective promotion of communal interests threatens to weaken considerably. In a large district it is no longer possible for the individual party to survey the entire area and its interests.

We have seen that developments are unmistakably tending towards the institution of public districts with a large area and multiple functions. In these districts there is a danger that the general assemblies do not have the capacity for making always efficient decisions due to the incoherency of the parties concerned. As a result effective water control may be hampered. Experience has shown in a number of countries that also a certain amount of fear to decide on important changes, a certain amount of conservatism, tends to obstruct effective activities of both the general assembly and the board of the public district. They sometimes lack the ability for sound longterm planning.

There are however also instances of large local districts with a great variety of functions which perform their functions very well, and where remarkable results have been achieved as regards an integrated water control. Such favourable developments may be attributed in the first place to the fact that an extensive area renders it possible to form a powerful body which becomes an efficient managerial unit with adequate administrative and technical staffs. In the second place the active and direct interest in the public district of participants is an important asset of these public districts.

In general it is deemed useful to have as a counterbalance to the great independence of

the local districts something in the form of the power of the central government to exercise influence on the administrative and technical policies of the public district if it should fail to perform its functions properly. It has already been stated that the central government should make an appropriate use of this power, in order to make it possible for the districts to develop their own activities to the full. If this arrangement can be made satisfactorily one can continue to regard the public districts as the most satisfactory form for the collective promotion of joint local water control.

In some countries the solution of public districts over large areas is not adopted. There authorities or boards have been instituted for the administration of the development and the management of local water control. This form of local administration of water control comprises all elements necessary for the proper regulation of joint water control, which were briefly mentioned at the beginning of this chapter. They however lack the direct link with the interested parties which the latter derive from participation in the general assembly of a public district. As a rule an endeavour is made to have representation of the parties concerned on the boards or in the authorities by getting, for instance, farmers organizations or landowners organizations to nominate members of the board. In cases where pollution control plays a part representatives on the boards are also nominated by municipalities and by industrial organizations.

If one now finally considers the effectiveness of the local organization for the administration of water control a number of requirements must be laid down which the organization has to meet, no matter what form it takes. These were already discussed in the preceding chapters dealing with the various aspects of the administration of local water control. The following summary once again gives the requirements that must be laid down from the point of view of effective water control.

- a.* There should be legislation which opens the possibility of setting up local districts or other local bodies for water control. In instituting local districts or other local bodies their functions should be clearly defined. They should obtain the powers to make decisions with regard to the construction of works, the assessment of costs, the regulation of the management of water control by means of bye-laws and the acquisition of land for the construction of works.
- b.* An endeavour should be made to set up units of local water control per river basin with the task of development and management of water resources within the river basin, including quantitative and qualitative aspects of water control and including surface waters and ground water. It follows from this that the organizations for water control should be of a permanent nature.
- c.* By establishing large administrative units of local water control the possibility is obtained of sufficient governing powers, sufficient financial capabilities and an efficient administrative and technical staff.
- d.* An endeavour must be made to establish such a link between the local organization

for water control and the parties concerned in local water control that the latter realise they are involved in the development and management of local water resources.

e. Finally, there should be a link between the central government and organizations for local water control to ensure that the public powers accorded to them are properly used and also to ensure that the local organizations in the performance of their tasks do not lag behind the national policy of development and utilisation of land and water resources.

SUMMARY

LOCAL ADMINISTRATION OF WATER CONTROL IN A NUMBER OF EUROPIAN COUNTRIES

1. *Objectives of joint development*

The community needs water control as well as the development and management of water resources for its well being – and in many a low-lying region of the earth also for its security. Water control has almost invariably a regional character; that is to say a certain water control structure is frequently of importance for an area having many land owners and land users. Another characteristic of water control is that it is only feasible in the technical and economic sense when it is developed by areas. Therefore a form of local organization is required to establish and to manage the collective water control works.

The forms of local organization of water control may differ greatly from one country to another. All forms, however, have a number of organizational and administrative objectives in common:

- a. In the local organization it must be possible to make decisions of the majority which are with respect to water control binding for the minority.
- b. It must be possible to spread the cost of the

joint water control over the parties thereby involved.

- c. It must be possible to make bye-laws relative to the management and to the protection of the works that have been constructed for the common good.
- d. It must be possible to acquire lands for the construction of collective works.

These four objectives can only be achieved if the local organization has the character of a public corporation.

2. *Some types of local administration of water control*

The great differences between countries in types of the local water control organizations are to be attributed mainly to differences in historical and political developments and further to differences in geographical conditions. A few striking forms of organization are dealt with briefly in the following paragraphs.

In some countries the local administration of water control comes about through a 'legal survey' instituted at the request of the parties concerned. The legal survey results in a decision whether the water control project in question is to be carried out. No public district is formed, the verdict of the legal survey, which generally relates to only small areas and

to a small number of interested parties, stipulates all rights and obligations of the parties concerned with respect to the water control.

The local administration of water control cannot be entrusted to the smallest general governmental unit, because the territories of the local governing body and that of water control seldom coincide and because the spheres of interest greatly differ in character. Local administration of water control by central government agencies does indeed occur. There are objections to this; the most important of them being the long line of command in an extensive government service, the transfer of officials and the absence of a close connection between the parties concerned and the governmental bodies.

In some countries there are public districts for water control with what is in effect a temporary task. They are constituted for a certain project by virtue of a vote taken among the land-owners. The outcome of the vote decides on the setting up of the public district and on the execution of the project. Thereafter the public district in question rather soon loses its importance, and as a result difficulties arise often in connection with the maintenance of the works.

In many countries there are districts of a more permanent character for the administration of water control. This applies above all where the maintenance of works, the pumping for the drainage of lands, or the regulation of the distribution of irrigation water play important parts. Most districts are small and then the idea of mutual cooperation is the most pronounced. Technically speaking larger districts are preferable.

Although there are districts based on voluntary cooperation, practically all districts are more in the nature of a corporation of public law. The local cooperation among the parties concerned in relatively small areas, which forms the historic basis for the public districts for water control, has of late been affected by ten-

sion. Technically speaking it is often much more satisfactory to apply the collective schemes to large areas. Hydrologists favour the river basin as area unit.

There are also other forms of tension due to the fact that the governments are trying, within the framework of their national policies to impose new tasks on the districts, for instance, pollution control. Furthermore, governments are now requiring, in the public interest, that the local development of water resources be effected to the fullest possible extent and not neglected.

The outcome of this is that in many countries the local administration of water control is subject to evolution. In some countries the tendency is towards larger districts by uniting existing smaller districts. Other countries are setting up boards or other authorities, per river basin for instance, with powers to coordinate the development and the management of water resources. In many countries the governments are considering the extension of water control to pollution control and ground water management.

3. The local public district

Legal or public districts in which the parties concerned themselves regulate local water control play an important part in many countries. This term legal or public districts comprises corporations of public law uniting parties interested in water control and binding those concerned with respect to the interests taken care of by the district. In the following paragraphs a brief summary is given of a number of aspects of these districts.

The possibility of setting up public districts for local water control is in most countries regulated by general legislation. The establishment of districts depends, as a rule, on a special act or a decree promulgated by the departmental or provincial governments. In most cases the parties concerned will be consulted before the district is set up. Sometimes the establishment

of a district is made dependent on the approval of the majority of the parties concerned.

Historically drainage, flood control and irrigation have formed the most important tasks of public districts for water control. Pollution and salinity control are being added to the above functions more and more. Generally speaking it may be said that all functions of water control which are more or less functionally integrated in an area, and notably in river basins, should be entrusted to a district. This includes the development and management of the communal aspects also of ground water resources in areas where there is a need of such a scheme. In this connection consideration should be given also to erosion control in areas lying upstreams in river basins for which public districts are established.

The functions of the districts need not be confined to the construction of the works and the assessment of the costs of such works. They should also include the maintenance and the further development of the water resources. It is desirable that the organization be of a permanent nature.

Since the districts can make bye-laws in connection with water control which affect the interests of individual persons it is desirable that the functions of a district be clearly described in the decree establishing it. With this arrangement the central government will moreover have an opportunity of taking action in the event that a district should fail to perform its functions properly in the light of the national water policy.

The organizational structure of the districts is primarily determined by the regulations which define the constitution of the board, the constitution of the general assembly, the powers to make bye-laws and to institute registers, etc. In the general assembly lies the organizational link between the district and the parties concerned.

The term 'parties concerned' in the case of flood control, drainage and irrigation means

the land owners and sometimes also the tenants. In the case of flood control and pollution control the general assembly will also include representatives of municipalities and industrial organizations, for instance chambers of commerce.

Bye-laws are essential for the management of water control. Such laws are generally laid down by the board, but they do not become effective until they have been approved by a higher authority. Before this approval is granted ample opportunity should be given for appeals.

The administrative and technical staffs form an essential structural part of the organization. The development and management of water control give rise to many administrative and technical problems, especially when the task of the districts is extended. In view of this the board should have its own consultative bodies. Attention is drawn to the fact that this is only possible in the case of larger districts with a sufficient budget.

The districts have expenditures for the construction, the maintenance and the exploitation of the works of water control and for administrative purposes. The finances for the construction of works, as far as they are not covered by government subsidies, are raised by loans. The money required annually for interest and redemption of these loans, together with the other yearly expenditures of the districts, must be defrayed out of the levies imposed on the parties concerned. As a rule the levy is based on the extent of the interests parties have in the works of the district. As the interests may differ considerably within a given district, a classification must be devised that meets the requirements of fairness and justice but which is also on simple lines.

A relationship exists between central governments and local districts for a number of reasons. The water control programs of both central governments and local districts exist to serve the public interest, that is, the interest

and welfare of all the people who are affected by such programs. In the first place the central government provides the legislation under which public local districts are called into being. Secondly, the central government, or at least some higher authority, must be able to exercise supervision to ensure that the districts do not abuse the great powers vested in them as public corporations. In a number of instances individual persons must have a right of appeal to a higher authority against the decisions of the districts. In the third place the central government should be accorded power to exercise influence on the technical policy of the districts to ensure that they do indeed make their contribution towards an effective development and management of the national water resources. Care must however be taken that frequent intervention on the part of the central government does not harm the self-governing character and the initiative of the local districts.

4. *The effectiveness of local organization of water control*

The joint aspects of local water control can be looked after by corporations which have the powers summarized above. In the local districts this joint scheme is based on the collective activity of the parties concerned. Formerly in many countries all organizations of local water control were in the nature of these public districts. Through the extension of the areas, in which the aim is to develop water control in an integral approach, and through the addition of new objectives, the link between the several parties concerned and the district has been weakened. Nevertheless, in many countries one finds local water control looked after very efficiently by large districts thanks to the great directive force of such big units. General assemblies decide on the development of water control within the district. In these assemblies parties interested can relate costs to benefits of water control.

In some countries authorities or boards have been set up and full powers conferred on them with respect to local water control. In pursuing their policy they are not dependent on the decision of a general assembly of interested parties. This form of organization lacks the direct link existing between the parties concerned and the public district.

No matter what form of organization the local administration of water control may take, the effectiveness is determined by the following factors:

- a. Effective national legislation for the setting up of public organizations for local water control which should be a part of a broad national water policy to serve the public interest.
- b. Large units of local water control of a permanent nature and with the ultimate task of development and management of water resources per river basin, including quantitative and qualitative aspects of water control for surface waters and ground water.
- c. Adequate size of administrative units of local water control to ensure that there is an efficient directing force based on good technical and administrative management.
- d. A link between local district and parties concerned through which they can take an active part in water control.
- e. A link between central government and local district to ensure that the managerial powers vested in the latter are properly used and furthermore to ensure that the task is performed in a manner that is in keeping with the public interest.

RÉSUMÉ

L'ADMINISTRATION LOCALE DE L'AMÉNAGEMENT DES EAUX DANS CERTAINS PAYS D'EUROPE

1. *Objectifs d'une mise en valeur collective*

Le bien-être de la communauté et, dans bien des régions basses, sa sécurité, dépendent de l'aménagement, de la mise en valeur et de la gestion des ressources en eaux. L'aménagement des ressources en eaux a presque invariablement un caractère régional; ce qui signifie qu'un certain système d'aménagement des eaux intéresse fréquemment une région occupée par un nombre important de propriétaires ou d'exploitants. D'autre part, l'aménagement des eaux doit être assuré sur le plan régional pour des raisons aussi bien techniques qu'économiques. Il exige donc une certaine forme d'organisation locale qui entreprendra et administrera les travaux collectifs d'aménagement des eaux.

L'organisation locale de l'aménagement des eaux peut prendre des formes très différentes d'un pays à l'autre. Cependant, toutes ces solutions ont en commun un certain nombre d'objectifs structurels et administratifs:

a. Il faut que l'organisation locale puisse faire respecter par la minorité les décisions prises par la majorité en ce qui concerne l'aménagement des eaux.

- b. Le coût des mesures communes d'aménagement des eaux doit pouvoir être réparti entre les intéressés.
- c. Il doit être possible d'adopter des règlements relatifs à la gestion et à la protection des ouvrages qui ont été construits dans l'intérêt commun.
- d. Il doit être possible d'acquérir des terres pour la construction des ouvrages collectifs.

Ces quatre objectifs ne peuvent être atteints que si l'organisation locale s'assimile à un organisme de droit public.

2. *Quelques formes d'organisation de l'administration locale de l'aménagement des eaux*

Les grandes différences que l'on constate d'un pays à l'autre en ce qui concerne les formes d'organisation de l'aménagement local des eaux s'expliquent principalement par des différences d'évolution historique et politique et de situation géographique. Nous exposerons brièvement dans les paragraphes suivants quelques formes typiques d'organisation.

Dans certains pays, c'est à la suite d'une „enquête légale” demandée par les intéressés que l'administration locale des ressources en eaux est mise en place. Cette „enquête légale” sert de base à une décision judiciaire sur le point de savoir si le projet d'aménagement des eaux

envisagé doit être mis à exécution. On ne constitue aucune association de droit public. Le jugement rendu en fonction de „l'enquête légale", qui porte généralement sur des superficies assez limitées et sur un petit nombre de personnes intéressées, stipule tous les droits et toutes les obligations des parties en ce qui concerne l'aménagement des ressources en eaux.

L'administration locale de l'aménagement des ressources en eaux ne peut être confiée à la plus petite des unités gouvernementales générales, parce que le territoire de celle-ci ne coïncide que rarement avec celui de l'aménagement des eaux et que les zones d'intérêt sont trop différentes. Il est vrai qu'on peut trouver des exemples d'institutions gouvernementales centrales qui se chargent de l'administration locale des mesures d'aménagement des eaux, mais cette méthode présente des inconvénients, dont les principaux sont les lenteurs d'un grand service gouvernemental fortement hiérarchisé, le transfert de fonctionnaires et l'absence d'un lien étroit entre les intéressés et les institutions gouvernementales.

Dans certains pays, il existe des associations de droit public chargées de l'aménagement des eaux, dont la tâche est en réalité temporaire. Elles sont constituées à la suite d'un vote des propriétaires fonciers, portant sur un projet bien délimité. C'est ce vote qui décide de la création de l'association de droit public et de l'exécution du projet. L'association a ensuite tendance à perdre de son importance, ce qui crée souvent des difficultés pour l'entretien des ouvrages.

On trouve dans beaucoup de pays des associations chargées de l'administration de l'aménagement des eaux, ayant un caractère plus permanent, surtout là où l'entretien des ouvrages, le drainage des terres par pompage ou bien le contrôle de la répartition des eaux d'irrigation joue un rôle important. La plupart des associations sont petites et font donc surtout appel à l'esprit de coopération. D'un point de vue

technique, on préférera les associations plus grandes.

Bien qu'il existe des associations dont le principe de base est la coopération volontaire, presque toutes les associations ont plutôt le caractère d'organismes de droit public.

La coopération entre les intéressés dans des zones relativement restreintes, base traditionnelle des associations de droit public pour l'aménagement des eaux, s'affaiblit depuis quelque temps. Les exigences techniques réclament souvent que les programmes collectifs soient appliqués sur de vastes régions. Les hydrologues préconisent d'adopter le bassin fluvial comme unité.

D'autres difficultés surgissent par suite des efforts que les gouvernements font, dans le cadre de leur politique nationale, pour imposer aux associations de nouvelles tâches, par exemple la lutte contre la pollution des eaux. En outre, les gouvernements demandent actuellement que, dans l'intérêt public, la mise en valeur des ressources locales en eaux ne soit pas négligée mais au contraire développée le plus possible.

En conséquence, l'administration locale des ressources en eaux de beaucoup de pays se trouve actuellement en pleine évolution. Dans certains pays, on a de plus en plus tendance à créer des associations plus importantes en regroupant les associations plus petites déjà existantes. D'autres pays sont en train de constituer des conseils ou autres autorités, ayant par exemple pour rayon d'action un bassin fluvial et habilités à coordonner la mise en valeur et la gestion des ressources en eaux. Dans de nombreux pays, les gouvernements envisagent d'élargir les activités d'aménagement des eaux et d'y inclure la lutte contre la pollution des eaux et l'utilisation des eaux souterraines.

3. L'association locale de droit public

Les associations légales ou de droit public où les personnes intéressées dirigent elles-mêmes

l'aménagement local des eaux, jouent un rôle important dans beaucoup de pays. Le terme „associations légales ou de droit public” désigne des organismes de droit public groupant des personnes intéressées à l'aménagement des eaux, et ayant sur celles-ci des pouvoirs de décision en ce qui concerne les intérêts dont les associations ont la charge. Dans les paragraphes suivants, nous résumons brièvement quelques aspects importants de ces associations.

Dans la plupart des pays, la création d'associations locales pour l'aménagement des eaux est déterminée par une législation générale. L'institution de ces organismes locaux dépend, en général, des décrets ou des décisions des autorités gouvernementales, départementales ou provinciales. Bien souvent, la création d'une association locale est décidée seulement après consultation des intéressés. Parfois, la création d'une association dépend d'un vote majoritaire des intéressés.

Le drainage, l'irrigation et la lutte contre les inondations représentent historiquement les tâches les plus importantes des associations de droit public pour l'aménagement des eaux. A ces tâches, on adjoint de plus en plus fréquemment la lutte contre la pollution des eaux et le contrôle de leur salinité. D'une façon générale, tous les aspects de l'aménagement des eaux, parce qu'ils font partie d'un ensemble fonctionnel dans une région et notamment dans un bassin fluvial, doivent être confiés à une association. On doit inclure parmi ces fonctions la mise en valeur et la gestion communes des eaux souterraines là où le besoin s'en fait sentir. On doit étudier également sous cet angle la possibilité de lutter contre l'érosion dans les zones situées en amont dans les bassins fluviaux pour lesquels des associations de droit public ont été créées.

Les associations ne devraient pas avoir pour seules fonctions d'exécuter des travaux et de répartir les dépenses afférentes mais, au contraire, s'occuper également de l'entretien et de

la mise en valeur progressive des ressources en eaux. Il est souhaitable que ces organisations soient permanentes.

Etant donné que les associations peuvent adopter des règlements intérieurs concernant l'aménagement des eaux, règlements qui affectent les intérêts des particuliers, les fonctions de l'association doivent être clairement définies dans le décret qui l'établit, d'autant plus que cette définition permettra au gouvernement central d'intervenir dans le cas où l'association ne s'acquitterait pas de ses tâches de façon satisfaisante selon l'optique de la politique nationale d'aménagement des ressources en eaux.

L'organisation interne des associations est arrêtée en premier lieu par les règlements définissant la composition de son conseil d'administration et de son assemblée générale, ses pouvoirs en matière de règlements intérieurs et d'établissement des registres, etc. L'assemblée générale constitue le lien organique entre l'association et les intéressés.

Le terme „intéressés” se réfère, pour les associations de lutte contre les inondations, de drainage et d'irrigation, aux propriétaires fonciers et parfois aussi aux fermiers. L'assemblée générale des associations de lutte contre les inondations et la pollution des eaux, comprendra aussi des représentants des municipalités et des organismes industrielles, par exemple de chambres de commerce.

La gestion du système d'aménagement des eaux exige que des règlements intérieurs soient adoptés. Ceux-ci sont généralement formulés par le conseil d'administration, mais ne sont mis en vigueur qu'après avoir été approuvés par une autorité supérieure. On doit donner toutes facilités pour qu'il soit possible de faire appel avant cette approbation définitive.

Le personnel administratif et technique constituent un rouage essentiel de cette organisation. La mise en valeur et la gestion des ressources en eaux posent de nombreux problèmes administratifs et techniques, en parti-

culier lorsque les tâches de l'association se multiplient. C'est pourquoi le conseil devra avoir ses propres organismes consultatifs. Il convient de souligner que seules pourront faire face à ce besoin les associations les plus importantes disposant d'un budget suffisant.

Les associations doivent également faire face à des dépenses de construction, d'entretien et d'exploitation des ouvrages d'aménagement des eaux et à des frais administratifs. Les fonds nécessaires à la construction des ouvrages, dans la mesure où ceux-ci ne sont pas financés grâce à des subventions gouvernementales, seront constitués au moyen d'emprunts. Le paiement des intérêts, le remboursement de ces prêts et autres dépenses annuelles des associations doivent être couverts par les contributions que les intéressés ont à verser. En règle générale, la contribution est fixée en fonction de l'intérêt que les travaux exécutés par l'association présentent pour les intéressés. Ces intérêts pouvant varier considérablement à l'intérieur d'un périmètre donné, on doit trouver une méthode de classification qui satisfasse aux besoins d'équité et de justice, mais qui cependant demeure simple.

Pour un certain nombre de raisons, il existe des rapports étroits entre les gouvernements centraux et les associations locales. Les programmes d'aménagement des eaux établis par les gouvernements centraux et les associations locales sont destinés à servir l'intérêt général, c'est-à-dire, l'intérêt et le bien-être de toutes les personnes que ces programmes concernent. Premièrement, le gouvernement central adopte les lois régissant l'institution des associations locales de droit public. Deuxièmement, le gouvernement central ou du moins quelque autorité supérieure, doit avoir un droit de supervision garantissant que les associations n'abusent pas des vastes pouvoirs qu'elles reçoivent en tant qu'organismes de droit public. Dans un certain nombre de cas, les particuliers doivent avoir le droit de se pourvoir en appel auprès d'une instance supérieure

pour les décisions prises par les associations. Troisièmement, le gouvernement central doit être en mesure d'exercer une influence sur la politique technique des associations afin que celles-ci assument bien leur part des efforts de mise en valeur et de gestion efficaces des ressources nationales en eaux. On doit toutefois veiller à ce que des interventions trop fréquentes du gouvernement central ne nuisent pas au caractère autonome et à l'esprit d'initiative des associations locales.

4. L'efficacité de l'organisation locale de l'aménagement des eaux

Les aspects collectifs de l'aménagement local des eaux peuvent être pris en charge par des organismes dont les pouvoirs sont indiqués ci-dessus. Dans les associations locales, ce programme commun se fonde sur l'activité collective des personnes intéressées. Dans de nombreux pays, toutes les formes d'organisation de l'aménagement local des eaux pouvaient autrefois être assimilées à ces associations de droit public. Les superficies couvertes ayant été agrandies pour permettre l'application de programmes d'ensemble d'aménagement des eaux, et les fonctions de ces associations ayant été élargies, les liens entre les différents intéressés et l'association se sont affaiblis. Néanmoins, on constate que, dans de nombreux pays, de vastes associations assurent très efficacement l'aménagement des eaux grâce à la vigueur que leur assure leur structure. Les assemblées générales prennent toutes les décisions relatives à l'aménagement des eaux à l'intérieur du périmètre d'aménagement. Ces assemblées permettent aux intéressés de comprendre les coûts et les avantages comparés des mesures d'aménagement des eaux.

Dans certains pays, des corporations semi étatiques ou des conseils ou autres autorités ont été créés et ont reçu de pleins pouvoirs quant à l'aménagement local des ressources en eaux. Ils peuvent poursuivre la politique de

leur choix sans avoir à obtenir l'approbation d'une assemblée générale des intéressés. Les liens directs qui unissent les intéressés et l'association de droit public sont malheureusement faibles dans ce type d'organisation.

Quelle que soit la forme d'organisation adoptée, on peut admettre que l'administration locale de l'aménagement des eaux devra, pour être efficace, disposer des atouts suivants :

- a. Législation nationale efficace prévoyant la création d'organisations publiques pour l'aménagement local des eaux, qui devrait se rattacher à une politique nationale générale sur les ressources en eaux destinée à servir l'intérêt public.
- b. Vastes unités d'aménagement local des eaux ayant un caractère permanent et dont l'objectif final est d'organiser la mise en valeur et la gestion des ressources en eaux par bassin fluvial ainsi que le contrôle quantitatif et qualitatif des eaux de surface et des eaux souterraines.
- c. Importance suffisante des unités administratives d'aménagement local des eaux afin de leur assurer la vigueur que confère une bonne gestion technique et administrative.
- d. Liaison entre l'association locale et les intéressés afin que ceux-ci puissent prendre
- e. une part active à l'aménagement des eaux. Liaison entre le gouvernement central et l'association locale afin que les pouvoirs administratifs accordés à celle-ci soient utilisés à bon escient et, de plus, afin que cette tâche soit assurée dans le respect de l'intérêt général.

ZUSAMMENFASSUNG

ÖRTLICHE VERWALTUNG DER WASSERWIRTSCHAFT IN EINIGEN LÄNDERN EUROPAS

1. *Aufgaben zur gemeinsamen Entwicklung*

Für die Gemeinschaft erweist sich eine Ordnung der Wasserwirtschaft, wie auch die Entwicklung und die Verwaltung von Wasserhilfsquellen für ihr Wohl, und in vielen tief liegenden Gegenden der Erde gleichfalls für ihre Sicherheit, als notwendig. Fast ohne Ausnahme sind wasserwirtschaftliche Maßnahmen durch die örtlichen Verhältnisse bedingt, eine gewisse Maßnahme ist häufig wichtig für ein Gebiet, an dem viele Grundstückeigentümer und Landbenutzer beteiligt sind. Einen anderen bezeichnenden Zug der Regelung der Wasserwirtschaft bildet der Umstand, dass dieselbe im technischen und wirtschaftlichen Sinne sich nur ermöglichen lässt, wenn sie gebietsweise zur Entwicklung gelangt. Aus dem Grunde wird eine Form örtlichen Zusammenschlusses erfordert, um die gemeinschaftlichen, zur Ordnung der Wasserwirtschaft notwendigen, Werke zu bauen und zu verwalten.

Der örtliche Verband zur Ordnung der Wasserwirtschaft kann sich von Land zu Land auf ganz verschiedene Weise gestalten. Sämtliche Formen haben jedoch eine Anzahl organisatorischer und verwaltungsmässiger Aufgaben gemein:

- a. Beim örtlichen Zusammenschluss muss es möglich sein, Mehrheitsbeschlüsse zu fassen, die in Bezug auf die Ordnung der Wasserwirtschaft für die Minderheit bindend sind.
- b. Es muss möglich sein, die Kostenanteile wegen der gemeinschaftlichen Ordnung der Wasserwirtschaft auf die beteiligten Parteien umzulegen.
- c. Es muss möglich sein, mit Rücksicht auf die Verwaltung und den Schutz der Werke, welche zum Gemeinwohl gebaut worden sind, Verordnungen zu erlassen.
- d. Es muss möglich sein, Grundstücke zum Bau der gemeinschaftlichen Werke zu erwerben.

Diese vier Aufgaben können nur dann mit Erfolg durchgeführt werden, wenn der örtliche Zusammenschluss den Charakter einer öffentlichen Körperschaft hat.

2. *Einige Formen örtlicher Verwaltung der Wasserwirtschaft*

Die grossen, sich zwischen den Ländern ergebenden, Unterschiede in Formen der örtlichen Zusammenschlüsse zur Ordnung der Wasserwirtschaft sind hauptsächlich auf verschiedenartige Entwicklungen in historischer und politischer Hinsicht und weiter auf Unter-

schiede in geographischen Verhältnissen zurückzuführen. In den nachfolgenden Abschnitten werden einige auffallende Formen kurz behandelt.

In einigen Ländern kommt eine örtliche Verwaltung der Wasserwirtschaft durch eine auf Antrag der beteiligten Parteien eingesetzte „gesetzmässige Überwachung“ zustande. Die gesetzmässige Überwachung ergibt eine Entscheidung, ob der in Frage stehende Plan zur Ordnung der Wasserwirtschaft durchgeführt werden soll. Es wird kein öffentlicher Verband gebildet, die Entscheidung der „gesetzmässigen Überwachung“, welche sich im Allgemeinen nur auf kleinere Gebiete und auf eine kleine Anzahl beteiligter Parteien bezieht, setzt sämtliche Rechte und Verpflichtungen der beteiligten Parteien in Bezug auf die Ordnung der Wasserwirtschaft fest.

Die örtliche Verwaltung der Wasserwirtschaft kann nicht der kleinsten gesamtstaatlichen Behörde anvertraut werden, weil die Gebiete des örtlichen Verwaltungskörpers, z.B. Gemeinde oder Kreis, und der Ordnung der Wasserwirtschaft selten zusammenfallen und weil die Interessensphären ganz verschiedener Natur sind. Örtliche Verwaltung der Wasserwirtschaft durch von der Zentralregierung eingesetzte Behörden findet statt. Hiergegen bestehen viele Bedenken; als wichtigste davon treten der lange Dienstweg, den bei einem grossen behördlichen Apparat eine Entscheidung zu geben hat, die Versetzung von Beamten und das Fehlen einer engen Verbindung zwischen den beteiligten Parteien und den behördlichen Instanzen hervor.

In einigen Ländern gibt es öffentliche Verbände für die Ordnung der Wasserwirtschaft, deren Aufgabe im Wesentlichen vorübergehender Natur ist. Sie werden auf Grund einer unter den Grundstückseigentümern vorgenommenen Abstimmung für einen bestimmten Plan eingesetzt. Das Ergebnis der Abstimmung entscheidet über die Bildung des öffentlichen Verbandes sowie über die Durchführung des

Planes. Danach verliert der betreffende örtliche Verband ziemlich bald seine Bedeutung und die Folge ist, dass sich bei der Instandhaltung der Werke oft Schwierigkeiten ergeben.

In vielen Ländern gibt es Verbände dauerhafterer Art für die Verwaltung der Wasserwirtschaft. Es trifft dies vor Allem da zu, wo die Instandhaltung der Werke, das Pumpen für die Entwässerung von Grundstücken oder die Regulierung der Verteilung des zur Bewässerung dienenden Wassers eine bedeutende Rolle spielen. Die meisten Verbände sind klein und dann kommt der Gedanke eines Zusammenschlusses am stärksten zum Ausdruck. Technisch gesprochen verdienen grössere Verbände den Vorzug.

Obwohl es Verbände gibt, welche auf freiwilligen Zusammenschluss gegründet sind, haben sämtliche Verbände mehr den Charakter einer Körperschaft des öffentlichen Rechts.

Der örtliche Zusammenschluss unter den beteiligten Parteien in verhältnismässig kleinen Gebieten, die die historische Grundlage für die öffentlichen Verbände zur Ordnung der Wasserwirtschaft bilden, hat in letzter Zeit den Einfluss eines gespannten Verhältnisses erfahren. Technisch gesprochen ist es oft viel befriedigender, die gemeinsamen Regelung der Wasserhaushalt auf grosse Gebiete anzuwenden. Hydrologen bevorzugen das Stromgebiet eines Flusses als Gebietseinheit.

Es gibt auch andere Gegensätze und zwar wegen des Umstandes, dass die Regierungen, im Rahmen ihrer Nationalpolitik, den Verbänden neue Aufgaben, wie z. B. Überwachung der Wasserverunreinigung, aufzuerlegen versuchen. Ferner fordern die Regierungen jetzt für das Gemeinwohl, dass die örtliche Entwicklung der Wasserhilfsquellen im möglichst grossen Umfange durchgeführt und nicht vernachlässigt wird.

Das Ergebnis ist, dass in vielen Ländern die örtliche Verwaltung der Wasserwirtschaft eine

Evolution durchmacht. In einigen Ländern macht sich ein Bestreben, zu grösseren Verbänden zu gelangen, geltend, indem man die vorhandenen kleineren Verbände zusammenlegt. Andere Länder setzen Ausschüsse oder andere Behörden, z.B. nach Stromgebieten, ein, die Vollmachten haben, die Entwicklung und die Verwaltung der Wasserhilfsquellen zu koordinieren. In vielen Ländern erwägen die Regierungen einen Ausbau der Ordnung der Wasserwirtschaft zu einer Überwachung der Wasserverunreinigung und einer Verwaltung des Grundwasserhaushaltes.

3. *Der örtliche öffentliche Verband*

Gesetzliche oder öffentliche Verbände, in denen die beteiligten Parteien selbst die Ordnung der Wasserwirtschaft regeln, spielen in vielen Ländern eine bedeutende Rolle. Diese Bezeichnung, gesetzliche oder öffentliche Verbände, umfasst Körperschaften des öffentlichen Rechts, welche die an der Ordnung der Wasserwirtschaft interessierten Parteien zusammenfassen und in Bezug auf den vom Verbände gewahrten Interessen für die Beteiligten bindend sind. In den nachfolgenden Abschnitten wird eine kurze Übersicht über eine Anzahl Aspekte dieser Verbände gegeben. Die Möglichkeit, öffentliche Verbände zur örtlichen Ordnung der Wasserwirtschaft zu bilden, wird in den meisten Ländern durch eine allgemeine Gesetzgebung geregelt. Die Schaffung von Verbänden hängt in der Regel von einem Sondergesetz oder einer Verordnung, welche von den Bezirks- oder Provinzverwaltungen erlassen wird, ab. In den meisten Fällen werden vor der Schaffung des Verbandes die beteiligten Parteien zu Rate gezogen. Zuweilen hängt die Bildung eines Verbandes von der Zustimmung der Mehrheit der beteiligten Parteien ab.

In historischer Hinsicht waren Entwässerung, Hochwasserschutz und Bewässerung die wichtigsten Aufgaben der öffentlichen Verbände zur Ordnung der Wasserwirtschaft. In immer

stärkerem Masse kommen die Überwachung der Verunreinigung und der Salzhaltigkeit der Gewässer zu den obigen Aufgaben hinzu. Im Allgemeinen kann man sagen, dass sämtliche Aufgaben zur Ordnung der Wasserwirtschaft, welche mehr oder weniger funktionell für ein Gebiet, insbesondere für Stromgebiete, im Zusammenhang stehen, einem Verband anvertraut werden sollten. Dies schliesst z.B. gleichfalls die Entwicklung und Verwaltung der kommunalen Aspekte der Grundwasserhilfsquellen in Gebieten, die eine solche Entwicklung erfordern, ein. In diesem Zusammenhang sollte ebenfalls die Überwachung der Erosion im oberen Stromgebiet, für das öffentliche Verbände gebildet worden sind, berücksichtigt werden.

Die Aufgaben der Verbände brauchen sich nicht auf das Errichten der Werke und die Umlegung der mit derartigen Werken verknüpften Kosten zu beschränken. Sie sollten auch die Instandhaltung und die weitere Erschliessung der Wasserhilfsquellen umfassen. Es ist erwünscht, dass die Organisation einen dauernden Charakter trägt.

Da die Verbände Verordnungen in Bezug auf die Ordnung der Wasserwirtschaft, welche die Interessen einzelner Personen beeinflussen, erlassen können, ist es erwünscht, dass die Aufgaben eines Verbandes in dem Erlass, auf Grund dessen er gebildet wird, klar umschrieben sind. Auf Grund dieser Anordnung wird die Zentralregierung ausserdem Gelegenheit haben, für den Fall dass ein Verband verfehlen sollte seine Aufgaben im Hinblick auf die nationale Wasserwirtschaftspolitik gehörig zu erfüllen, die nötigen Massnahmen zu ergreifen.

Die organisatorische Struktur der Verbände wird in erster Linie von den Satzungen bestimmt, die die Zusammensetzung des Ausschusses, die Zusammensetzung der Generalversammlung, die Vollmachten Verordnungen zu erlassen und Grundbücher einzurichten, usw. regeln. Die Generalversammlung bildet

das organisatorische Bindeglied zwischen dem Verband und den beteiligten Parteien.

Die Bezeichnung „beteiligte Parteien“, steht, falls Hochwasserschutz, Entwässerung und Bewässerung in Frage kommen, für die Grundstückseigentümer und bisweilen auch die Pächter. Im Falle des Schutzes vor Hochwasser und Bekämpfung der Wasserverunreinigung wird die Generalversammlung auch Vertreter von Gemeinden und industriellen Organen, z.B. Handelskammern, umfassen.

Verordnungen sind für die Verwaltung der Wasserwirtschaft unentbehrlich. Derartige Satzungen werden im Allgemeinen vom Ausschuss aufgestellt, treten aber erst, nachdem sie von einer höheren Behörde genehmigt worden sind, in Kraft. Bevor diese Genehmigung erteilt wird, sollte reichlich Gelegenheit gegeben werden Berufung einzulegen.

Das Verwaltungs- und technische Personal bildet einen wesentlichen strukturellen Bestandteil der Organisation. Die Entwicklung und die Verwaltung der Wasserwirtschaft ergeben manche administrative und technische Probleme, speziell, wenn die Aufgabe der Verbände erweitert wird. Mit Rücksicht hierauf sollte der Ausschuss seine eigenen beratenden Körperschaften haben. Hierbei soll beachtet werden, dass dies nur möglich ist, wenn es sich um grössere Verbände handelt, die über ein hinreichendes Budget verfügen.

Die Verbände haben Ausgaben für den Bau, die Instandhaltung und die Nutzung der zur Ordnung der Wasserwirtschaft errichteten Werke sowie zu verwaltungstechnischen Zwecken. Die zum Bau der Werke benötigten Finanzen, sofern dieselben nicht durch staatliche Zuschüsse gedeckt werden, werden im Anleihenwege beschafft. Die jährlich zu Zinsen und zur Tilgung dieser Anleihen erforderlichen Gelder, zusammen mit den übrigen jährlichen Ausgaben der Verbände, sollen durch auf die beteiligten Parteien umgelegte Beträge bestritten werden. In der Regel richtet sich der Beitrag nach dem Umfang, in dem die

Parteien an den Werken des Kreises beteiligt sind. Da es zwischen den Interessen innerhalb eines bestimmten Kreises bedeutende Unterschiede geben kann, muss eine Klasseneinteilung, welche den nach Recht und Billigkeit zu stellenden Anforderungen entspricht, aber gleichzeitig auf einfacher Grundlage beruht, gefunden werden.

Aus verschiedenen Gründen besteht zwischen den Zentralregierungen und den örtlichen Verbände ein bestimmtes Verhältnis. Die Programme zur Ordnung der Wasserwirtschaft von Zentralregierungen sowie von örtlichen Verbänden sind dazu da, dem allgemeinen Interesse, d.h. dem Interesse und der Wohlfahrt aller Menschen, die von solchen Programmen betroffen werden, zu dienen. Zunächst sorgt die Zentralregierung für die Gesetzgebung, auf Grund derer öffentliche Verbände ins Leben gerufen werden. Zweitens soll die Zentralregierung, oder wenigstens irgendeine höhere Behörde imstande sein, Aufsicht auszuüben, um zu garantieren, dass die Verbände die grossen Vollmachten, mit welchen sie als öffentliche Körperschaften ausgestattet sind, nicht missbrauchen. In einer Anzahl von Fällen sollen einzelne Personen das Recht haben, an eine höhere Behörde gegen die Entscheidungen der Verbände zu appellieren. Drittens sollte der Zentralregierung Vollmacht erteilt werden, Einfluss auf die technische Politik der Verbände auszuüben, um zu garantieren, dass diese tatsächlich zu einer wirkungsvollen Entwicklung und Verwaltung der nationalen Wasserhilfsquellen beitragen. Es soll jedoch Sorge dafür getragen werden, dass eine häufige Einmischung seitens der Zentralregierung dem Selbstverwaltungscharakter und der Initiative der örtlichen Verbände nicht schadet.

4. Die Zweckmässigkeit des örtlichen Verbandes zur Ordnung der Wasserwirtschaft

Körperschaften, die über die obenaufgeführten Vollmachten verfügen, können die

gemeinsamen Aspekte der örtlichen Ordnung der Wasserwirtschaft überwachen. In den örtlichen Verbänden gründet sich dieser gemeinsame Zweck auf die gesamte Tätigkeit der beteiligten Parteien. Früher hatten in vielen Ländern sämtliche Zusammenschlüsse zur Verwaltung der Wasserwirtschaft den Charakter solcher öffentlichen Verbände. Infolge der Ausdehnung der Gebiete, in denen die Entwicklung der Wasserwirtschaftsverwaltung durch integrale Inangriffnahme erfolgen soll, und infolge der Hinzufügung neuer Aufgaben, ist die Bindung zwischen den verschiedenen beteiligten Parteien und den Verbänden schwächer geworden. Nichtsdestoweniger kann man feststellen, dass in vielen Ländern die örtliche Ordnung der Wasserwirtschaft sehr wirksam von grossen Verbänden, dank der grossen leitenden Macht solcher wichtigen Körperschaften, überwacht wird. Die Generalversammlung entscheidet über die Entwicklung der Wasserwirtschaftsverwaltung innerhalb des Verbandes. In diese Versammlung können die beteiligten Parteien die Kosten und die Vorteile der Ordnung der Wasserwirtschaft abwägen.

In einigen Ländern sind Behörden oder Ausschüsse eingesetzt und denselben Vollmachten in Bezug auf die Ordnung der Wasserwirtschaft übertragen worden. Bei der Entwicklung ihrer Politik sind diese nicht von der Entscheidung einer Generalversammlung der beteiligten Parteien abhängig. Dieser Organisationsform fehlt die direkte Bindung zwischen den beteiligten Parteien und dem öffentlichen Verbands.

Gleichgültig welche Organisationsform die örtliche Verwaltung der Wasserwirtschaft annehmen sollte, wird die Wirksamkeit durch nachstehende Faktoren bestimmt:

- a. Wirksame nationale Gesetzgebung zur Gründung öffentlicher Organisationen zur örtlichen Wasserwirtschaftsverwaltung, welche einen Bestandteil einer ausgedehnten

nationalen Wasserwirtschaftspolitik zum gemeinen Nutzen bilden sollen.

- b. Grosse Körperschaften zur örtlichen Wasserwirtschaftsverwaltung von dauernder Natur und mit der endgültigen Aufgabe, die Wasserhilfsquellen, je nach Stromgebiet, zu entwickeln und zu verwalten, einschliesslich der quantitativen und qualitativen Aspekte der Ordnung der Wasserwirtschaft in Bezug auf Tagewasser und Grundwasser.
- c. Angemessenen Umfang der Verwaltungsinstanzen der örtlichen Wasserwirtschaftsverwaltung, um zu garantieren, dass eine starke leitende Macht, welche auf einer guten technischen und administrativen Verwaltung beruht, da ist.
- d. Ein Bindeglied zwischen der örtlichen Verwaltung und den beteiligten Parteien, wodurch sie aktiv an der Ordnung der Wasserwirtschaft teilnehmen können.
- e. Ein Bindeglied zwischen der Zentralregierung und der örtlichen Verwaltung, um zu garantieren, dass von der Verwaltungsmacht, mit welcher letzterer betraut wird, ein richtiger Gebrauch gemacht wird und ferner um zu garantieren, dass die Aufgabe auf eine Weise erfüllt wird, die mit dem gemeinen Nutzen im Einklang ist.

RESUMEN

ADMINISTRACIÓN LOCAL DE AGUAS EN ALGUNOS PAISES EUROPEOS

1. *Fines de una administración colectiva*

El bienestar de una nación y en las partes bajas del mundo su seguridad, exige en que las aguas sean bien administradas y que su riqueza se fomenten. Por ello, la administración del agua, suele tener un carácter local y es de suma importancia, en regiones donde los propietarios de terrenos y a la vez beneficiarios de las mismas son numerosos. Por otra parte, su administración tanto económica como técnica solo es posible por regiones. Por ello, es necesario, tener organizaciones locales, que administren y gobiernen las obras e instalaciones hidráulicas; en estos organismos diferirán sus formas administrativas, pero todos, coinciden en tener los mismos fines.

He aquí los mas esenciales:

- a. Que sus decisiones sean respetadas por todos los beneficiarios en lo concerniente a la administración de las aguas.
- b. Que los interesados, costeen en proporción a la propiedad, los gastos de administración.
- c. Establecer ordenanzas, para la conservación, defensa y dirección de las obras

construidas, en beneficio del bien común.

- d. Procurar la adquisición de terrenos para la construcción de nuevas obras colectivas. Estos fines solo pueden ser llevados a la realidad si la organización tiene un carácter legal o de derecho público.

2. *Algunas formas de administración de aguas local*

Las grandes diferencias en los sistemas de administración de aguas, que podemos observar en diferentes países, podemos atribuirlos principalmente a la evolución politico-histórica y la situación geográfica de los mismos. En algunos países, se encomienda su administración a una comunidad u organismo legal, instituido a petición de las partes interesadas. Dicho organismo, toma todas las decisiones referentes a la ejecución de los proyectos.

No se forma un entidad pública, o de derecho público. El veredicto de dicho organismo, generalmente se reduce a superficies limitadas, siendo muy relativo el número de interesados. La administración de aguas, no debe confiarse a la mas pequeña unidad gubernamental conocida, ya que por lo general su territorio no coincide sinó en raros casos con el de una cuenca fluvial o distrito de aguas, a la vez que sus puntos de interés son de carácter distinto.

En contra de ésta opinión existen regiones en que organismos gubernamentales se encargan de la administración de las aguas, tropezando dichos sistemas, aparte del inconveniente anterior, con los de la lentitud en sus decisiones, por estar fuertemente jerarquizados y la ausencia de una estrecha colaboración con las partes interesadas, debido al continuo cambio de empleados y oficiales en estos organismos.

Existen en algunos países, organizaciones públicas de carácter temporal. Se establecen para ejecutar un proyecto bien delimitado y sus componentes son elegidos por votación, entre los propietarios de los terrenos interesados. El resultado de la votación decide a un tiempo la creación de la organización y la ejecución del proyecto. Una vez terminados éste pierde dicha organización su eficacia y carácter, con el inconveniente de que después surgen dificultades para la conservación de las obras ejecutadas.

Muchos países disponen de confederaciones, asociaciones, hermandades y comunidades de regantes que tienen un carácter más permanente. Es su misión la de velar por la conservación y defensa de las obras, la aportación, distribución y cómputo de las aguas de riego, el bombeo de las aguas para el drenaje en las regiones bajas, etc. etc.; frecuentemente la comarca de su tutela es pequeña por lo que existe entre las mismas la idea de colaboración mutua.

Estos últimos años ésta colaboración local, base histórica de las comunidades de regantes, tropieza con grandes dificultades pues las exigencias técnico-económicas necesitan de proyectos colectivos de mayor amplitud sobre extensas regiones. Por esto los hidrólogos especialistas en ésta materia prestan preferencias a las cuencas de los ríos.

También, surgen dificultades a consecuencia de la política de los gobiernos, ya que dentro del cuadro de política nacional, se impone a las comunidades de regantes nuevas tareas,

como la lucha contra la impurificación y contaminación de aguas etc. etc.

Por ello que los gobiernos exijan por razones de interés público que el aprovechamiento local de aguas no sea descuidado sino fomentado con la mayor intensidad posible. Por esto, la administración de aguas está en muchos países en un plan de intensa evolución. En unas, se manifiesta la tendencia de formar unidades o distritos amplios agrupando los pequeños existentes; y en otros se han o están formando consejos o confederaciones teniendo como radio de acción toda una cuenca fluvial; teniendo dichos organismos suficiente autoridad para coordinar todas las gestiones y fomentar proyectos y recursos. Son numerosos también los gobiernos que amplían la administración de aguas con medidas de defensa contra la impurificación y la utilización subterránea.

3. La comunidad de regantes o asociación local de derecho público.

Como asociaciones locales de derecho público, se entienden la comunidad, hermandad, cofradía de regantes, con carácter de organismo público interesado en el gobierno local de aguas y con poderes oficiales para tomar todas las decisiones concernientes a los intereses de su incumbencia y cargo.

Damos en los párrafos siguientes una breve reseña sobre algunos importantes aspectos de estas asociaciones.

En la mayoría de los países la posibilidad de constituir comunidades de regantes está regulada por la Ley. La institución de estos organismos, está sujeta a una serie de decretos y decisiones promulgados por la autoridad gubernativa. También es necesario consultar con las partes interesadas antes de su institución, pues sin su aprobación no podría ser constituida.

El drenaje, la irrigación y la defensa contra las inundaciones son las tareas principales de estas asociaciones; continuándolas por su

importancia las luchas contra la impurificación y la salificación.

Generalmente, todos los aspectos de la administración de las aguas, que se hallan integrados funcionalmente en una región determinada y de modo especial en una cuenca fluvial, deben ser confiados a la comunidad o asociación de regantes.

Incluso el desarrollo, fomento y administración, de los recursos de aguas subterráneas en las regiones donde tales proyectos sean necesarios.

Una de las futuras tareas puede ser la de la lucha contra la erosión en los montes, riberas y zonas altas de la cuenca puesta bajo su mandato.

Las funciones de éstas comunidades, no deberá limitarse solamente a la preparación de presupuestos, asesoramiento y construcción de obras, sino que deberá de defender, fomentar y conservar las riquezas acuáticas.

Dado que las asociaciones pueden tomar medidas internas sobre la administración de aguas y dichas medidas pueden afectar los intereses de los propietarios y colonos, las funciones de su incumbencia deben estar claramente descritas, por lo cual estas asociaciones deben instituirse mediante un decreto o ley que las confiera estos poderes. Esta medida, abre la posibilidad para que el gobierno, tome las medidas necesarias caso de éstas no ejerzan sus funciones satisfactoriamente. Su organización interna, será regida por un reglamento o estatuto confeccionado por los promotores de la misma y a su vez aceptado por la autoridad.

De las bases de éste reglamento se procederá a elegir su Consejo de Administración, Asamblea o Junta General, Jurados etc.; otorgando a cada uno los poderes para tomar decisiones de fuerza legal, establecer registros etc. La misión de la Asamblea es la de permanecer como enlace entre la asociación y las partes interesadas.

La expresión „partes interesadas”, corres-

ponde a toda aquella persona, sociedad o industria que de un modo directo o indirecto tenga relaciones cerca de dicha comunidad. Estas sociedades, cuando se trata sobre asuntos de defensa contra las inundaciones y contaminación de aguas incluirán a la asamblea general representantes oficiales de los municipios y de las organizaciones industriales, por ejemplo las Cámaras de Comercio.

El equipo técnico y administrativo, es una parte esencial de este organismo. La dirección y administración de las obras hidráulicas plantean *infinidad* de problemas sobre todo, cuando los trabajos de la comunidad son extensos.

Por ello los Consejos de Administración deberán tener sus equipos consultativos y de asesoramiento.

Merece especial mención, el que esto solo lo permite cuando la cuenca o distrito sea de gran extensión y el presupuesto lo permita. Los trabajos de construcción, reparación, conservación y explotación de obras hidráulicas, así como su administración, ocasionan imprescindibles gastos; su amortización o pago se efectúa, una parte, por subsidios del gobierno y el resto, por medio de empréstitos. Los fondos necesarios para el pago de intereses y amortización de dichos empréstitos así como de los demás gastos de explotación deberán proceder de las cuotas que los interesados o beneficiarios satisfagan.

Por regla general, la contribución fijada debe ser a tono y función con la importancia de los trabajos ejecutados por la asociación tengan para el interesado.

Los intereses de un distrito pueden ser muy variados y desiguales, por lo que se deben de emplear normas de clasificación de cuotas, a base de equidad y justicia, así como de sencilla ejecución.

Por un cierto número de razones, existe una relación estrecha entre el gobierno y las asociaciones de regantes.

Los programas de administración de aguas,

establecidos por el gobierno, en colaboración con las comunidades de regantes locales, son destinados para servir el interés general, es decir al interés y prosperidad de todas las personas afectadas por los mismos.

En primer lugar el gobierno, prepara la legislación conveniente para la creación de las comunidades de regantes.

En segundo lugar el gobierno o una autoridad superior, designada al efecto, efectúa la supervisión como garantía de que la asociación o comunidad no abusa de los amplios poderes que recibió para ejercer y ejecutar su cometido.

Así como también acoger en su seno aquellas apelaciones o recursos que los particulares presenten contra las decisiones de las comunidades o asociaciones indicadas.

En tercer lugar el gobierno, debe tener el poder de influir en la política técnico-administrativa de éstas, con el fin de asegurar se contribuya eficazmente al buen desarrollo y explotación de las riquezas de las aguas nacionales.

Esta influencia del gobierno, sin embargo, no debe perjudicar el carácter autónomo y la iniciativa de las comunidades, con una intervención excesiva.

4. *La eficacia de una organización local de administración de aguas.*

Los aspectos colectivos de una administración local de aguas, pueden ser confiados a las entidades provistas de los poderes anteriormente expuestos.

En las comunidades locales, éste programa colectivo se basa en la actividad de los interesados.

En diversos países, todas las formas de administración de aguas estaba de antiguo en manos de las comunidades de derecho público.

La función de éstas ha sido aumentado con diversos programas de obras, lo cual ha obligado a la ampliación de su jurisdicción debilitando la unión entre los interesados.

A pesar de ello se han y siguen formando grandes comunidades de regantes, que efectúan con gran energía esta difícil tarea de la dirección y administración de las aguas, solo posible gracias a su constancia. En las asambleas, los beneficiarios e interesados, pueden comparar los gastos con los beneficios, de cada proyecto.

Así mismo, algunos países, han nombrado autoridades y formado organismos para este fin. Por ello estas organizaciones no dependen de las decisiones de una asamblea, ni de los interesados, para llevar a cabo sus proyectos. Faltando en estos casos el contacto y la unidad del organismo con las partes interesadas.

Pero, cualquiera que sea la forma en que se organice la administración de las aguas, su eficacia depende de los siguientes puntos.

- a. De una legislación nacional eficaz, que permita establecer organizaciones públicas, para la administración local de aguas, dentro de una política al servicio de los intereses públicos.
- b. De la formación de grandes entidades, con carácter permanente, con el fin de que gobiernen, fomenten y administren las riquezas de las cuencas fluviales, incluidos los aspectos de control cuantitativos y cualitativos de aguas de superficie y subterráneas.
- c. Ampliar las unidades administrativas y técnicas, adecuadamente, para asegurar una vigorosa dirección.
- d. De una buena cooperación, entre la asociación y las partes interesadas, con el fin de que estos participen activamente en la administración de las aguas.
- e. De una buena colaboración entre el gobierno y la administración de las aguas, con el fin de que los poderes otorgados a los últimos, los utilicen adecuadamente y de acuerdo con el interés público.

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