

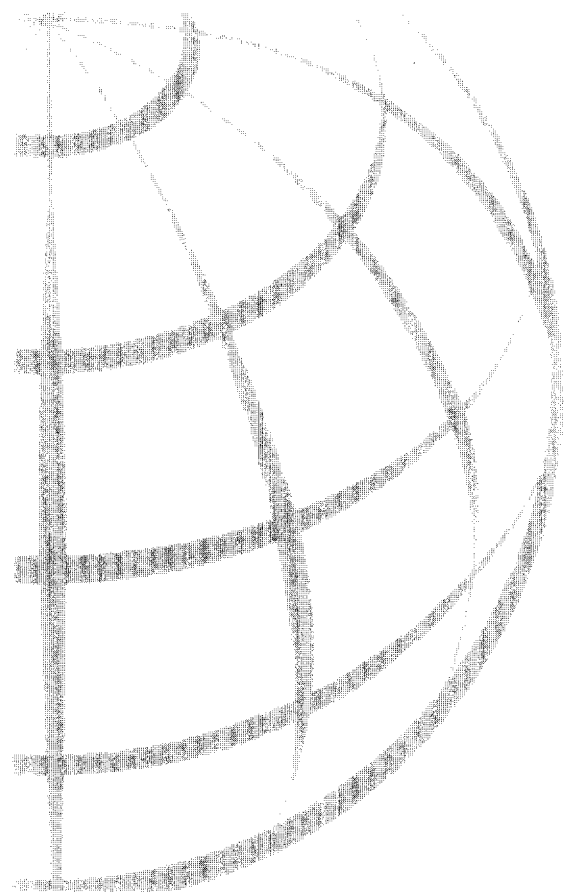


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The Legal Framework for Water Users' Associations

A Comparative Study



Salman M. A. Salman

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Salman M. A. Salman

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FOREWORD

Water is a scarce resource. Although water covers about seventy percent of the earth's surface, less than half of one percent of that amount is actually usable for irrigation, domestic, or industrial purposes. Irrigation alone uses more than seventy percent of that usable amount, while the remaining portion is used for domestic, municipal and industrial purposes. Accordingly, any attempt to minimize waste, and to achieve an efficient use of water should pay particular attention to irrigation water.

Recent experience has confirmed that participation of farmers in managing parts of the irrigation system and collecting water charges results usually in a more efficient use of water. For such participation to be effective, farmers in the hydraulic unit would need to organize themselves in one body, often known as a "water users' association." A number of irrigation projects recently financed by the World Bank have included components on water users' associations.

This paper contributes to the process of understanding the legal framework for water users' associations. It deals with water users' associations in six countries, in three continents. It describes and analyzes, in a comparative manner, how the basic aspects related to the establishment and functioning of water users' associations are addressed by each of those countries, with special emphasis on operation and maintenance of the irrigation system, and collection of water charges.

The paper should be a useful guide for lawyers, task managers, other Bank staff and government officials working on this area. It should assist in understanding the appropriate procedures for establishing water users' associations and ensuring their proper and smooth functioning.



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ABSTRACT

This paper is a comparative study of the legal framework for water users' associations (WUAs) in six countries, namely, Colombia, India, Mexico, Nepal, the Philippines and Turkey. The study postulates that, since water is becoming an increasingly scarce resource and irrigation is the single largest user of water, every effort should be made to achieve efficient use of irrigation water. The paper builds on the theory that if farmers participate through WUAs in managing and operating parts of the irrigation system, including collecting water charges, the result will be an optimum use of water. It goes on to describe the legal instruments that are necessary for the establishment of WUAs. Chapter 1 deals with the enabling law - the law from which the authority to establish WUAs is derived - and describes the main issues that this law would include. Chapter 2 discusses the bylaws of the WUA and describes the main issues that the bylaws would usually address, showing in a number of areas the different approaches by different countries (or states) to the same issue. Chapter 3 addresses the transfer agreement, the agreement between the irrigation agency and the WUA in which the irrigation agency agrees to transfer to the WUA responsibilities for managing parts of the irrigation system, and the WUA accepts such responsibilities. As such the chapter also deals with the relationship between the irrigation agency and the WUA, and details, again in a comparative manner, the issues that the transfer agreement would usually address. The concluding chapter argues that the different approaches to the same issue by the six countries is due mainly to the different environment in which each WUA is operating, and to their experience in participatory irrigation management.

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This paper has its origins in the 1995 World Bank Water Seminar, (December 1995) where an early short version was presented and discussed. My special thanks are extended to Mr. Ashok Subramanian who has urged me to update and expand the version presented at the Water Seminar. He and Messrs. Herve Plusquellec and Joma Mohamadi were kind enough to share with me some unpublished bylaws and transfer agreements, and have provided valuable suggestions and comments on the earlier drafts of the paper, for which I am quite grateful. I also wish to thank Messrs. Shawki Barghouti, J. R. Malhotra, Andres Rigo, Andrew Vorkink, Mohan Gopal and Kishor Uprety for their constructive comments. My special thanks are also extended to my assistant, Ms. Valerie Peters, for helping with the typing and formatting of the paper. Any deficiencies in this paper are my sole responsibility.

INTRODUCTION

The term “Water Users’ Association” refers generally to a grouping of farmers, usually of one hydraulic unit, command, or irrigation district, in one formal body for the purpose of managing parts of an irrigation system. This grouping of farmers has been given varying names such as “Water Users’ Association,” “Water Users’ Organization,” “Farmers’ Council,” “Farmers’ Organization,” “Irrigation Union,” or “Irrigation District Users’ Association.” The term “Water Users’ Association” (WUA), as used in this paper, refers to any of the above grouping of farmers, established for the purpose of operating and maintaining parts of an irrigation system, including the drainage system of such parts.

The primary objective for the establishment of WUAs is to achieve optimum utilization of available water through a participatory process that endows farmers with a major role in the management decisions over water in their hydraulic unit. This participatory process is often referred to as “participatory irrigation management.”

Agriculture is globally the single largest user of all the water taken from rivers, lakes and aquifers, while industry, domestic and municipal uses account for a considerably smaller percentage. “Today about 73 percent of all water withdrawals (and higher proportions of consumptive use) are for irrigation. This share is even higher in low income countries, In most countries this water is provided at heavily subsidized prices, with users seldom paying more than 10 percent of operating costs.”¹ In most developing countries irrigation accounts for a higher percentage than the global figure of 73 percent. In India, for example, irrigation accounts for 93% of present gross water used,² and the figure is even higher in some states in India, such as in the predominantly agricultural State of

¹ World Development Report 1992, Development and the Environment, the World Bank, page 100.

² India, Irrigation Sector Review; World Bank Report No. 9518-IN, Volume 1, page 16 (1991).

Punjab where irrigation accounts for about 95% of all water used. Hence, any attempt for realizing an optimum use of water would have to start with water used for irrigation.

The Water Resources Management Policy Paper of the World Bank lists a number of benefits which participation of users in managing and maintaining water facilities may bring. The benefits listed include (i) increasing the likelihood that these water facilities will be well maintained, (ii) contributing to community cohesion and empowerment in ways that can spread to other development activities, and (iii) reducing the financial and management burdens on the government as a result of users' participation in operation and maintenance of such water facilities. In addition, the Policy Paper states that "In irrigation projects, user participation helps promote sustainability by ensuring that design choices and operational practices are consistent with local crop requirements and farmer capacities. Such projects are more likely to be valued and maintained by the local population than projects without these elements Governments are finding that by involving strong water user associations in project management and fee collection at the local level, they can use the capacity of community members to exert social pressures on their neighbors to pay. Equally, because associations-managed systems have a consumer orientation, they are likely to provide better services and improve willingness to pay."³ Moreover, the Operational Policies of the Bank on Water Resources Management specify a number of priority areas where the Bank would assist borrowers. Those areas include "Decentralizing water service delivery, involving users in planning and managing water projects, and encouraging stakeholders to contribute to policy formulation Thus it (the Bank) supports projects that introduce different forms of decentralized management, focusing on the division of responsibilities among the public and private entities involved."⁴

³ Water Resources Management, A World Bank Policy Paper, page 57 (1993).

⁴ See Paragraph 2 (c) of OP 4.07, Water Resources Management, July 1993.

However, notwithstanding those benefits, there are a number of factors which could work against participation of farmers in managing and operating water facilities. In many societies, the government is seen as the ultimate provider of such services, and there is reluctance on the part of the farmers to take over such responsibilities, not knowing exactly what this may entail. Moreover, in many societies water is considered a God-given resource for which no fee should be levied, and the establishment of WUAs could be seen by farmers as a process for facilitating the levying of such water fee, or for ending other subsidies provided to them. On the other hand, government bureaucracy could view such participation as an attempt to curtail its wide range of authority, and may resist such participation.

The legal framework for the establishment of WUAs, and for enabling them to operate and maintain such parts of the irrigation system, consists basically of three sets of legal instruments, namely:

- The enabling law,
- The bylaws of the WUA, and
- The transfer agreement between the irrigation agency⁵ and the WUA.

The purpose of this paper is to discuss and analyze, based on comparative studies of legal instruments of WUAs in selected countries, the issues that need to be considered in preparing each of those legal instruments. The countries included in the study are Columbia, India, Mexico, Nepal, the Philippines and Turkey. However, in India the study is confined to the three states of Orissa, Maharashtra and Tamil Nadu. The choice of those countries and states has been influenced to a large extent by the availability, in the English language within the Bank, of copies of legal instruments on WUAs for those countries.⁶ Nonetheless, the choice took into account the fact that participatory irrigation management in those countries is

⁵ The term "irrigation agency" is used in this paper in a generic sense to refer to any agency, department or ministry that is responsible for irrigation or water related matters in the whole country or in a state or a province in that country.

⁶ Bylaws and transfer agreements are usually not published, and as such it is not easy to obtain them.

at different stages of acceptability and implementation. Whereas Mexico has reached a fairly advanced stage in implementation of participatory irrigation management, India is still at an early stage, with the remaining countries falling in various places in between. It should be emphasized, however, that it is not the intention of this paper to evaluate any of those case studies, or to pass a value judgment as to which one works best, as the objective of the paper is a comparative study of the legal framework of WUAs in those countries and states. The Annexes at the end of the paper are meant as examples of bylaws and transfer agreements, for countries at different stages in participatory irrigation management.

CHAPTER 1

THE ENABLING LAW

For a WUA to be established as a legal entity, there has to be a law authorizing its establishment. This law could be a general comprehensive “Water Law” that deals with all aspects related to water, including establishment of WUAs. The National Water Act in Mexico,⁷ and the Water Resources Act in Nepal,⁸ are examples of such a comprehensive law. The enabling law could also be special rules and regulations dealing specifically with WUAs, and deriving their authority from a basic law, such as the “Implementing Rules and Regulations on the Provisions of Republic Act No. 7607” on small farmers in the Philippines.⁹

Because of the absence of a basic law specifically on water or on WUAs, the states of India have relied on different laws to establish WUAs. In the Indian State of Maharashtra, WUAs have been established and registered as co-operative societies under the “Co-operative Societies Act.” On the other hand, in the State of Tamil Nadu and the State of Orissa in India, WUAs are established and registered as societies, under the “Societies Registration Act.”¹⁰

⁷ In Mexico, Article 50 of the National Water Act, 1992, authorizes the granting of concessions of water for irrigation to “Bodies corporate, for the purpose of managing or operating an irrigation system or for the common use of national waters for agricultural purposes.”

⁸ In Nepal, Section 5 of the Water Resources Act, 1992 (Act No. 2049) states that “(1) Persons willing to make use of water resources for collective benefits on an institutional basis may form a Water Users Association in a manner as prescribed. (2) The Water Users Association, constituted pursuant to sub-section (1) shall be registered in a manner as prescribed before the prescribed authority.” Although the Water Resources Act authorizes the establishment of the Water Users Association, such Water Users’ Association would be registered as a society under section 4 of the Association Registration Act.

⁹ In the Philippines, Act No. 7607 (1993) is also known as Magna Carta of Small Farmers. Rule 59, under Section 19 of the Implementing Rules requires some irrigation agencies to “provide technical assistance to farmer organizations in the operation of irrigation systems. On the other hand, the farmer organization shall be responsible for the maintenance, rehabilitation and repair of irrigation systems turned over by DA and NIA.” DA refers to the Department of Agriculture, and NIA to the National Irrigation Agency.

¹⁰ Section 3 (1) of The Tamil Nadu Societies Registration Act, 1975, (Tamil Nadu Act 27 of 1975) states that “.... Any society which has for its object the promotion of education, life nature, science, religion, charity, social reform, art, crafts, cottage industries, athletics, sports (including indoor games), recreation, public health, social services, cultural activities, the diffusion of useful knowledge or such other useful object with respect to which the State Legislature has power to make laws for the State which may be prescribed, may be registered under this Act.”

In India the central government, as a general rule, has no jurisdiction over water. Water, according to the constitution of India, is a state matter.¹¹ Accordingly, each state has issued, or followed, its own laws and regulations on water and, as a result, different legal instruments have emerged which should explain the varying practices on WUAs between the three states whose legal instruments are studied and analyzed in this paper. However, the central government has issued the National Water Policy which is not a legislation, but merely a statement of best practices aimed at influencing legislation, policies and practices of the states of India on water related matters. On participatory irrigation management, the National Water Policy urges that “Efforts should be made to involve farmers progressively in various aspects of management of irrigation systems, particularly in water distribution and collection of water rates. Assistance of voluntary agencies should be enlisted in educating the farmers in efficient water use and water management.”¹²

Inclusion of specific provisions on WUAs in the comprehensive water law, or having a separate Water Users’ Associations law or rules, clearly indicates a special interest on, and commitment to WUAs. Because of the absence of such specific law or rules on WUAs, the Indian States have relied on other laws that may not be closely related to water or WUAs. It is perhaps too early to ascertain the degree of adequacy, or inadequacy, of the Co-operative Societies Act and the Societies Registration Act, for dealing with the complex issues of WUAs.

The law establishing WUAs would usually include provisions indicating that the WUA to be established is a legal entity. The National Water Act in

¹¹ See Article 246 (3) and the Seventh Schedule, List II - State List, Entry 17 of the Constitution of India. That entry, which specifies water as a state matter, reads “17. Water, that is to say, water supplies, irrigation and canals, drainage and embankments, water storage and water power subject to the provisions of entry 56 of List I.” Entry 56 of List I deals with regulation and development of inter-state rivers and river valleys.

¹² India, National Water Policy, Ministry of Water Resources, (1987), Paragraph 12.

Mexico defines “individual or body corporate” as “individuals, *ejidos*, communities, associations, companies and other bodies corporate recognized as having legal status by law, with the forms and limitations established by it.”¹³ The Water Resources Act in Nepal states in Section 6(1) that “Users Association shall be an autonomous corporate body with perpetual succession.” Such enabling law would also address the relationship between the WUAs and the irrigation agency, the duties and obligations of the irrigation agency, and those of the WUAs, and the structure of water rates and the operation and maintenance and other fees. The enabling law may also lay down some of the main issues to be addressed in the bylaws of the WUA, and in the transfer agreement.

All societies, including WUAs, established and registered in any state in India under the Co-operative Societies Act, or the Societies Registration Act, are legal entities capable of contracting, opening and operating bank accounts, and instituting and answering suits. However, because of their nature, those two Acts do not address WUA related issues that are usually addressed in the water law or the law establishing WUAs.

¹³ Mexico, National Water Act, *supra* note 7, Article 1, VII. *Ejidos*, as used in this Section, refers to farmers’ communities.

CHAPTER 2

THE BYLAWS OF THE WUA

Whether established under a separate law or under an umbrella enabling law, the WUA would, in most jurisdictions, be required to prepare and agree on its bylaws before it can be registered as a legal entity, and before it can be allowed to operate. Those bylaws may be called “Regulations,” “Constitution,” “Charter” or “Articles of Associations.” The issues that such bylaws need to address include:

(i) ***Basic Facts About, and Objectives of, the WUA:*** The basic facts would include the name of the WUA, the law under which it is registered and its registration number, its address, and a clear definition of the area that the WUA is serving or its area of operation. This area of operation could be an entire irrigation district, or an entire command of a distributary, minor, sub-minor or a water course. It could also be defined by its size in acres or hectares.

A broad statement on the objectives of the WUA is usually included in the bylaws. Such objectives would include: participation in the management, operation, maintenance and upgrading of the irrigation infrastructure works that the WUA has taken responsibility for, collection of water charges, and provision of irrigation and drainage services to the members of the WUA.

(ii) ***Criteria for Becoming a Member of the WUA:*** Most bylaws restrict membership of the WUA to the registered land owners¹⁴ in the hydraulic unit, who are engaged on a full-time basis in farming. If any member of the WUA sells his land, his membership will be automatically canceled, and the new owner will be eligible for the membership of the WUA. However, the bylaws in some

¹⁴ The land tenure system in some countries where farmers are allowed to hold land for a short period of time may not encourage the formation of WUAs, as farmers under such circumstances may be reluctant to enter into long term investments when they are not sure how long they will be allowed to continue using the land.

countries extend the right to become a member to both owners and tenants, such as in Nepal where membership of the WUA is open to “farmers having lands or tenancy rights”¹⁵ In a third group of WUAs the list of those qualified for membership includes more than just owners and tenants. In Mexico it is stated that “Both founder and future members of the Association shall be owners or possessors by whatever right of the lands located within the limits of the unit marked on the plan”¹⁶ In the Indian State of Maharashtra membership of the WUA is extended to “Any owner/cultivator/permanent tenant/protected tenant in the area of operation of the society”¹⁷ The last two examples extend membership of the WUA beyond owners and tenants to farmers with customary rights over the land they are farming, but who may have no registered title to this land. The Maharashtra bylaws seem to include other categories of users such as sharecroppers and encroachers who are prevalent in some parts of India.

One question that may need to be addressed is, when a tenant becomes a member does he do so on his own right as a tenant, or does he do so on behalf of the registered land owner, and what are the rights and obligations of such owners and tenants. Box 2.1 describes the rights and obligations of both, the non-owning users, and the non-using owners, as laid down in the bylaws of one WUA in Colombia.

¹⁵ See Nepal, “Chapakot Farmers Irrigation Organization Constitution,” (1989), 2045, paragraph 6.

¹⁶ See Clause 8 of “the Articles of Farmers-Users Association, Irrigation Unit K-61, Upper Main Canal, Rio Yaqui Irrigation District 041, State of Sonora, Mexico, 1992.”

¹⁷ See Maharashtra “Model Bye-laws of Water Users’ Co-operative Society,” paragraph 5.

Box 2.1: Non-Ownning Users and Non-Using Owners, Colombia

Article 10. Joint liability of non-using owner

When the user is not both owner and user, the user shall be required, in the contract signed with the owner and by virtue of which he is permitted to farm the land, to accept joint liability with the owner, thereby guaranteeing all acts, measures and bills outstanding upon termination of the user's relationship with the District, for whatever reason.

Proviso 1. The District shall maintain an updated list of non-ownning users, who have left the owner with unpaid bills with respect to the matters referred to in this Article.

In order for such non-ownning users to be reaccepted as users, an authenticated certificate of full settlement of bills issued by the owner shall be required.

Proviso 2. When the ownership of a farm changes, the new owner or those with whom the new owner signs contracts for the farming of the land in question may not be included in the master list of users until any outstanding bills payable to the District with respect to that farm have been settled."¹⁸

(iii) *Number of Farmers Required for the Establishment of a WUA:*

Most of the bylaws state that at least 51% of the registered land owners in the command area where the WUA would be established should be enrolled as members before the WUA can seek registration, and before it can be allowed to operate. However, some bylaws allow the WUA to seek registration based either on the number of farmers enrolled, or the size of the land holdings coming under its operation regardless of the number of farmers enrolled. In Orissa "At least 51% of the registered land owners in the command area covered by the Association should be enrolled as members, *or* the land holdings of the members should cover at least 51% of the total area under the proposed Association."¹⁹ Moreover, in some cases, once 51% of the farmers are enrolled and registered in the WUA, all other farmers within the command area will be deemed to have become members in that WUA. In Mexico "all users listed in the register who,

¹⁸ See "The General Regulations for the Land Development District Managed by delegation of the Colombian Institute of Hydrology, Meteorology and Land Development (Instituto Colombiano de Hidrologia, Meteorologia y Adecuacion de Tierras--HIMAT)," Agreement No. 41 (November 16, 1977); in Herve Plusquellec, "Two Irrigation Systems in Colombia," PPR Working Paper Series No. 264, page 50 (September 1989).

¹⁹ See clause 5 (i) of the Orissa "Model Bye-Laws of Water Users Association," 1995, italics mine. The provision regarding "51% of the land holding" may end up favoring farmers with large holdings, possibly to the exclusion of small farmers.

while not founder members of the Association, apply and pay for irrigation services, thereby tacitly agreeing to belong to the Association, shall also be deemed to be members with the same rights and obligations.”²⁰

(iv) *The WUA as a Legal Entity:* Although the enabling law would usually specify that the WUA is a legal entity, further details regarding what this entails are usually included in the bylaws. It is usually stated that the WUA is authorized to enter into contracts in its name, and that the WUA can sue in its own name, and answer suits instituted against it.²¹ The WUA can also be authorized to borrow funds from private sources, using, if necessary, its assets as a collateral.²² In Mexico the transfer agreement expressly prohibits pledging the present or future proceeds of fees paid for irrigation services as a guarantee or collateral for any of the WUA’s borrowings.²³ The president or the secretary of the WUA would usually be designated as the person in whose name the suits will be instituted, and who will sign, on behalf of the WUA, all contracts, pleadings, power of attorney, petitions and statements.

(v) *Structural Organization and Internal Management:* Although WUAs may be organized differently, the two most common ways of organizing a WUA at the membership level are: (i) a general body of the WUA which would consist of all registered members who are current in the payment of their dues, as

²⁰ See Clause 8 of Articles of Farmers-Users Association, supra note 16.

²¹ See, for example, Section 20 (1) of the Tamil Nadu Societies Registration Act, supra note 10, which states that the executive committee or any officer “authorized in this behalf by its by-laws may bring or defend or cause to be brought or defended any action or other legal proceeding touching or concerning any property, right or claim of the registered society and may sue or be sued in respect of any such property, right or claim.” However, Section 21 (1) states that judgments passed against such officer “shall not be enforced against the property movable or immovable, or against the body of such officer, but against the property of the registered society.”

²² In Nepal, in addition to the bylaws of the WUA which are called “constitution,” the executive body of the WUA can issue its own operating rules (called bye-laws). The “Farmers Irrigation Association Bye-laws in Nepal (with Special Reference to Chapakot Irrigation Project),” supra note 15, state in Section 6.2 that “Since the bank loan needs a collateral security, beneficiaries shall provide their Lalpurja (land ownership document) to the bank through the Organization.” It should be noted in this case that although the loan will be extended to the WUA who will be the recipient and who will sign the loan documentation in its own name, the collateral is provided by individual members, each of whom is a legal entity distinct from the WUA.

²³ See Clause 9 XVI of “Instrument Awarding Concession, Farmer-Users Association, Irrigation Unit K-95, Upper Main Canal, Irrigation District No. 041, Rio Yaqui, A.C., Mexico,” dated January 1992.

in Mexico, Nepal, and the Indian states of Maharashtra, Orissa and Tamil Nadu; or (ii) a general body, which could be called the general assembly, which would consist of delegates directly elected to represent the different irrigation districts or sub-units within the hydraulic unit, as in the case of some WUAs in Turkey. In the latter case, there is an absence of one single forum encompassing all members. Box 2.2 describes the organizational structure of one WUA in Turkey where sub-units elect delegates to represent them in the general body.

Box 2.2: Organizational Structure, Irrigation Union of Korkuteli, Turkey

The organizational structure of the Irrigation Union of Korkuteli in Turkey is described in detail in the Union's Statute. According to Sections 2 and 3 of the Statute, the Union Members consist of 18 local authorities (mainly villages) where use is made of the Creek Korkuteli and of the irrigation facility of Korkuteli. Each of the Union Members elect delegates to represent them in the Union Assembly. The number of delegates to be elected by each local authority is specified in the Statute, ranging between 2 to 18 delegates, with the number of delegates in the Union Assembly totaling 65 members.

In addition to the delegates, each local authority also elects a certain number of substitutes (half the number of delegates). In the event that a delegate resigns, he/she is replaced by his/her substitute. Elections for the Union Assembly are held every four years, and the Union Assembly is required to meet at least twice a year. The Statute endows the Union Assembly with authority over a number of matters. The Union Assembly elects the Union Committee for running the day-to-day affairs of the Union, which consists of nine members from amongst the members of the Union Assembly. The President of the Union Assembly is also the President of the Union Committee, and he has a casting vote in case of a tie. The Union Committee elects two of the members as auditors with the authority to review and audit the records and accounts of the Union once every 15 days.²⁴

The general body would usually meet once a year to elect the executive body, discuss and approve the budget, the annual work program, and in some cases, crop patterns and water rotation, and set the water charges structure. The general body also fixes the borrowing limit, approves settlement of claims, and would be authorized to remove any member of the executive body, or pass a vote of no confidence on the executive body and elect a new one. Special meetings may be held at any time when deemed necessary by a majority of the executive body, or at the request of a certain specified percentage of all the members of the

²⁴ See Turkey, "Statute of the Irrigation Union of Korkuteli, (1976)," Sections 2 and 3.

general body, usually at least half the total of such members. The bylaws would also include details about the manner in which meetings of the general body are called, the quorum required for such meetings, and the consequences of the absence of a quorum in any meeting.

The executive body is usually elected by the general body every specified number of years. However, the executive body may, instead, consist, as in the case of the Indian State of Tamil Nadu, of the elected leader of each sluice command, rather than be elected by the general body. Box 2.3 describes the procedures for election of such executive body.

Box 2.3: Election of the Executive Body, Tamil Nadu-India

"8. All the registered land owners in the command area of the distributary/group of sluice will have the right to become members of the General Body.

Registered land owners under each sluice command, who have enrolled as members of the General Body will elect three representatives for each sluice, including a leader to constitute the Sluice Level Committee to take care of water distribution within the sluice command. Elected leader of each sluice would become a member of the Executive Body of the Farmers Council."²⁵

The executive body is authorized to run the day-to-day affairs of the WUA, subject to the control of the general body. The executive body would usually consist of a president (or chairman), a vice president (or vice chairman), a secretary, a treasurer, and other specified number of members, and those posts do not, in many countries, carry remuneration. One exception is Turkey where the president of the WUA is paid a salary, and the other members of the executive body are paid honoraria. Salaries of the president and employees of the WUA, and honoraria of the other members of the executive body are fixed by the Union Assembly. The bylaws would also include provisions about other details such as the quorum required for the meetings of the executive body, and the manner in which vacancies resulting from resignations or any other cause would be filled.

²⁵ See Tamil Nadu, "Model Bye-Laws of Farmers Council," (1994).

Membership of the executive body may also be extended to non-governmental organizations (NGOs) or any other institutions interested in irrigated agriculture, including a representative of the irrigation agency, but such members usually do not have the right to vote.

In carrying out the day-to-day activities, the executive body shall have all the powers necessary for administration of the affairs of the WUA and achieving its objectives. This would include the powers to employ on remuneration personnel needed for assistance in the operation, maintenance and repairs of the irrigation and drainage system, and to establish policies and procedures for deciding on the different charges to be levied on both members and non-members, together with policies for operation and maintenance. Those charges include water charges, operation and maintenance charges, and membership fees.²⁶ The membership fee, as its name indicates, is imposed only on members. The fee would be collected at specified time or times every year, and used only for member related activities such as rental of premises, office equipment and furniture, training, preparation and dissemination of information, and for covering any costs incurred in the meetings of both the executive body and the general body. The bylaws may require late payment charges of a certain percentage if the particular charge has not been paid by a certain date.

A bank account in the name of the WUA is usually opened, with separate sub-accounts for water charges, operation and maintenance fund and membership fees. The executive body would also approve work expenses, engage labor, organize labor contributions from members, keep systematic accounts and records of amounts collected and those spent on the water charges, operations and

²⁶ Dues and charges do not necessarily have to be paid in cash. In one village in the Philippines "The fees were to be paid in kilograms of paddy per hectare: 130 kilograms of paddy per hectare during the wet season and 95 kilograms per hectare for the dry season. For each sector, the water tender would deliver the bills to each farmer and, after the harvest, the fee collector would pick up the paddy from each farmer and provide him a receipt. The collector would then sell the paddy and turn the revenues over to the association." See Charles Gunasekara, Philippines, Communal Irrigation Project, in "The World Bank Participation Sourcebook," page 112, (1996).

maintenance fund, and membership fees. The executive body is usually required to have such accounts and records audited annually, and submit such accounts and audit reports to the general body during the annual meeting for approval. The executive body could include members who are specifically designated as auditors.²⁷

The executive body is also expected to make the necessary arrangements for training and educating the members of the WUA on water management, optimal and efficient use of water and cropping patterns, and to establish procedures for settling disputes among members of the WUA. The bylaws would include procedures for dealing with complaints from, and disputes among, members of the WUA, and among such members and the executive body. Procedures for voting the executive body out of office, through a vote of no confidence, including the majority needed for such a decision, would also be specified in the bylaws.

(vi) ***Operation and Maintenance:*** One of the primary objectives of the WUA is to operate and maintain the transferred irrigation and drainage system efficiently and economically, and with the full and active participation of all the members. Operation would include receiving water in bulk from the irrigation agency at a prescribed rate at the head of the minor/distributary and distributing such water equitably and in a timely manner, as per procedures and criteria agreed with the irrigation agency, to all farmers in the hydraulic unit, whether members or non-members. The bylaws would lay down, in agreement with the irrigation agency, the criteria for allocation of water to both members and non-members, which could be based on the type of crop grown or the size of the area to be irrigated, or both. The bylaws would also include the criteria for assessing water charges and operation and maintenance charges from both members and non-members. The operation and maintenance fund could include sources other than

²⁷ See Irrigation Union of Korkuteli, Box 2.2, page 12 supra.

charges from farmers. Box 2.4 describes the operation and maintenance fund established by the bylaws in the Indian State of Orissa.

Box 2.4: Operation and Maintenance Fund, Orissa-India

“30. FUNDS:

There will be raised a fund called “Operation & Maintenance Fund” (O&M Fund) by the “Association” in all or any of the following ways.

- (i) by shares.
- (ii) by contributions per ha. from the members and non-members.
- (iii) by donations from the members, land owners within the area of operation or any other Institution, Trust, State Government.
- (iv) by receiving subsidies, grant-in-aid from the State Government.
- (v) from profits which shall arise from the hiring implements/equipment to the farmers or from the margin of water rates in receiving bulk quantity of water on volumetric basis at the rates prescribed by State Government in appropriate Department from time to time and rates charges to the members after getting them approved from Government in appropriate Department.
- (vi) commission charges received from the State Government in collecting water charges from the members and remitting them to the Government in appropriate Department.

31. INVESTMENT AND OPERATION OF FUNDS:

The “Association” may keep its funds under interest bearing fixed deposits in the Nationalised/Gramya Bank authorised by the Government in appropriate Department/Irrigation Projects authorities in joint account of Secretary and Chairman/Member authorised by the Executive Body. The interest accrued from the fixed deposit amount shall be spent on operation and maintenance of the system and other allied activities as decided by the Executive Body.

The Secretary may retain in his personal custody an amount not exceeding Rs. 1,000/- for petty expenses (exigency office expenses). All payments other than wages above a certain amount as decided by the Executive Body shall be made by cheques signed by the Secretary and the Chairman or any other member authorised by the Executive Body.”²⁸

The WUA would be authorized to enforce discipline in water use among the users, and resolve any disputes in sharing of water by the individual farmers under the outlet, or group of farmers under the outlets of lateral, minor or distributary. The main responsibilities of the WUA include (i) collecting water

²⁸ See Orissa, Model Bye-laws, supra note 19, Paragraph 30.

charges from water users, whether members or non-members, and remitting them to the irrigation agency, and (ii) determining and collecting the charges for operation, maintenance and repairs of the irrigation and drainage system from members and non-members. In addition, the WUA may have responsibility, in some cases, for approving the cropping pattern and area to be irrigated for each crop within the area of operation of the WUA. The WUA would also have the power to inspect the irrigation and drainage systems under its operation, to establish a water distribution process to ensure prevention of wastage, misuse or unauthorized use of water, and to deal with allocation of water during shortages and crisis.

(vii) **Water Charges:** Reference to water charges is usually included in the enabling law where it would be stated that users shall be required to pay for the use of water, and the law would also specify the manner in which such water charges are calculated.²⁹ Moreover, other details on water charges are also included in both the bylaws and the transfer agreements. Inclusion of provisions on water charges in the bylaws would serve the purpose of establishing the payment obligations of each member of the WUA, whereas the provisions in the transfer agreement would establish the payment obligations of the WUA, as a legal entity, vis-à-vis the irrigation agency.

The National Water Policy in India states that “Water rates should be such as to convey the scarcity value of the resource to the users and to foster the motivation for economy in water use. They should be adequate to cover the annual maintenance and operation charges and a part of the fixed costs. Efforts should be made to reach this ideal over a period, while ensuring the assured and timely supplies of irrigation water. The water rates for surface and ground water

²⁹ See World Development Report, 1992, supra note 1 where it is stated that irrigation water in most countries in the world is heavily subsidized, and no more than 10 percent of operating costs is being paid by the users. The justification frequently given for this subsidy is that it is “... a means for offsetting low farm prices controlled to keep down food prices in the cities.” See Jeremy Berkoff, “A Strategy for Managing Water in the Middle East and North Africa,” The World Bank, page 36, 1994.

should be rationalized with due regard to the interests of small and marginal farmers.”³⁰

Generally speaking, water charges could be based either on a volumetric, or on a per hectare irrigated basis. However, the formula may include other details, such as crop and season. In India, water charges “... are levied annually for surface schemes on a per hectare-crop basis with different rates depending on crop and season; generally higher rates for more water consuming crops and in seasons when irrigation water is more scarce.”³¹

The transfer agreement would usually include provisions on the manner in which water charges are calculated, and the due date or dates for payment of the water charges by the WUA to the irrigation agency. It may include provisions for the payment of commission or discount by the irrigation agency to the WUA on water charges collected by the WUA. On the other hand, the WUA could be charged a late payment fee or interest on amounts paid after the due date. The transfer agreement would also include provisions giving the irrigation agency the right to suspend delivery of water if the WUA fails to make the payments of the water charges within the prescribed or extended time limit.³² Moreover, non-members of the WUA may be required to pay higher water rates than those paid by members.³³

(viii) ***Rights and Obligations of Members:*** Both founder and joining members shall have the same rights and obligations, including the right to equitable share of the water distributed (based on the crop grown, the size of the area to be irrigated or both), and to be charged, through established criteria, for the water delivered. They would also have the right to be invited and to attend all the

³⁰ See India, National Water Policy, supra note 12, paragraph 11.

³¹ See India, Irrigation Sector Review, supra note 2, Volume 2, page 59.

³² See Orissa “Model Memorandum of Understanding,” paragraph “Miscellaneous (v)” (1995).

³³ The Orissa Model Bye-Laws, supra note 19, allow the WUA to charge non-members higher water rates, not to exceed 30% of the rate applied to members. A similar provision is included in the Model Agreement between the Government of Maharashtra and Water Users’ Co-operative Society.

meetings, and to vote and run for office, provided they are current on the payment of their dues and charges, in compliance with their other obligations under the bylaws, and their integrity, including the absence of a criminal record, has been confirmed. Dues and charges to be paid by the WUA's members would include membership fees, water charges, and fees for operation and maintenance of the irrigation system. The membership fee would be a fixed amount for every member, whereas the water charges would vary, depending on the volume of water delivered, or on a per hectare basis. The fee for operation and maintenance of the irrigation system would be prorated, on a per hectare basis, within the overall area under the WUA, and paid in advance. Dues and charges could also include a fee for water conduction losses.³⁴ Such fee would be determined by the executive body, based on the volume of water delivered to each user.

Under the WUAs studied, each member of the WUA would have one vote regardless of the size of his land holding. The bylaws would also need to address the issue of proxy voting - whether it is allowed, and if so, the maximum number of proxy votes one member may cast on behalf of other members.

Failure of a member of the WUA to meet his membership obligations as described in the bylaws, such as failure to make payments, permit inspection of the irrigation system in his land, comply with the terms of the transfer agreement, carry out proper maintenance, or allow delivery of water to other users may subject such a member to sanctions. Such sanctions may include suspension of such a member, and the suspension shall continue until all outstanding obligations are met. Members who were discovered to be drawing off an unauthorized volume of water, or using their share of water for purposes other than those agreed upon without obtaining permission for such use, shall also be subject to sanctions.

³⁴ Conduction losses are losses of water due to evaporation and seepage. For procedures on calculating the fee for water conduction losses, see Clause 13.3 of Articles of Farmers-Users Association, *supra* note 16.

Non-members shall also pay the prescribed water rate, which as we have seen could be higher than those paid by members, and the operation and maintenance fees. Non-members are also subject to sanctions if they refuse to make payments for water or for operation and maintenance, fail to permit inspection of their irrigation system, or were discovered to be drawing off an unauthorized volume of water. In Mexico, as we have already seen, once a non-member applies to, and pays for irrigation services, such a person shall be deemed to be a member with the same rights and obligations as the founder members.

In some cases, joining members may inherit the obligations of their predecessors. In Mexico, in the event of any form of legal transfer of ownership or possession of a land holding on which there are outstanding dues to be paid, those dues become the responsibility of the new owner, and would have to be paid by the person to whom such ownership or possession is transferred before the start of provision of services to such a member.

(ix) *Interpreting and Amending the Bylaws:* Provisions would usually be included in the bylaws themselves describing the procedures for interpreting provisions of the bylaws in case there are different views as to what a certain provision may mean. Procedures and quorum required for amending the bylaws would also be included in the bylaws. Usually interpretation of provisions of the bylaws would be referred to a central body such as the Registrar of Societies, or the irrigation agency, and amendments would be effective after approval of such body.³⁵ Not all countries require such prior approval for amendments of the bylaws. In Nepal, amendments to the bylaws “ ... require advance approval of the Chief District Officer in accordance with section 8(1) of the “Association Registration Act, 2034,” but only when changes to the

³⁵ Section 12 (4) of the Tamil Nadu Societies Registration Act, supra note 10, states that “If the Registrar is satisfied that any amendment of the memorandum or the bye-laws is not contrary to the provisions of this Act, or the rules made thereunder, he may register the amendment. When the Registrar registers the amendment of the memorandum or the bye-laws, he shall issue to the registered society a copy of the amendment certified by him, which shall be conclusive evidence that the amendment has been duly registered.”

objectives of the Farmers' Association are envisaged or the Association is to be merged with other organisations. Other amendments can be carried out by the General Assembly meeting in conformity with the quorum envisaged in Section II of Chapter 4.”³⁶

(x) ***Liquidation of the WUA:*** The bylaws may include provisions stipulating the number of years for which the WUA would continue in existence, without prejudice to the right of the members to extend or reduce this duration. The bylaws would also include provisions for liquidation of the WUA, if a proposal to this effect is approved by not less than a certain percentage (usually 66% to 75%) of the registered members, in a meeting of the general body which may have to be called expressly and specifically for this purpose. In addition to provisions on liquidation of the WUA in the bylaws, the WUA may be dissolved as a result of a court decision. Provisions would also be included for disposition of the WUA's assets after meeting all its outstanding obligations and liabilities. Remaining assets may be handed over to the liquidator, or the irrigation agency, or distributed to its members, or sold to another WUA.

A general reference to the issues discussed in this chapter may be included in the enabling law, as in Mexico where the National Water Act includes provisions specifying the main issues that need to be addressed in the bylaws. Box 2.5 is a reproduction of the Article specifying such issues.

³⁶ See Nepal, *supra* note 15, paragraph 21.

Box 2.5: Issues to be Addressed in the Bylaws, National Water Act, Mexico

“Article 51: For the management and operation of systems and for the common use of the water referred to in subsection II above, bodies corporate must be governed by by-laws that included regulations with regard to:

- I. The distribution and management of the water conceded to them, and the manner in which decisions are to be reached by the group of users.
- II. The form in which the individual rights of their members or the users of the irrigation service are guaranteed and safeguarded, and the forms in which they may participate in the management and oversight of the system.
- III. The form in which the infrastructure or common system is to be operated, conserved and maintained; the form in which investments are to be made in improvements; and the form in which the costs incurred are to be recovered. It shall be compulsory for the members or users to pay the requisite fees if they are to continue to receive the service or to use the water.
- IV. The rights and obligations of members and users, and sanctions for failure to comply.
- V. The terms and conditions under which individual rights to water use may be conveyed among the members or users of a common system.
- VI. The terms and conditions under which the rights to a concession, or the use of surplus water, may be totally or partially conveyed to third parties.³⁷
- VII. The procedures for dealing with complaints by members or users.
- VIII. The terms and conditions to be followed in mergers, splits, dissolutions and liquidations.
- IX. All other matters that stem from this Act and its regulations or are agreed upon by members or users.

Bylaws and amendments to them require a two-thirds vote in favor by a general assembly called expressly for this purpose.”

³⁷ Mexico has established detailed procedures for acquiring water rights by both individuals and bodies corporate, and for operation of water markets. According to Article 20 of the National Water Act, supra note 7, “In order to acquire national water rights, individuals and bodies corporate must obtain a concession from the Federal Executive Branch through the (National Water) Commission, in accordance with the rules and provisions established by this Act and its regulations.” The instrument of concession granted by the Commission includes basic information such as the name and address of the holder of the concession, basin, region and locality of the concession, the site from which the water is to be extracted, the initial use to which the water will be put, the project or the works to be carried out, or features of existing works for the extraction and use of the water, and the period for which such concession is granted, which is usually not less than 5, nor more than 50 years. In addition, this instrument also defines the basic rights and obligations of both the Commission and the concession holder. Article 22 states that the Commission may decide to award certain waters on the basis of bidding when various competing interests are anticipated. Article 30 states that “The Commission shall maintain a Public Registry of Water Rights in which shall be recorded the concessions, grants and permits referred to hereby, as well as their extensions, suspension, termination and acts and contracts relative to the total or partial assignment of the pertinent rights.” Article 33 deals with the procedures for transferring the rights over water, and Article 36 states that “When a concession or grant is transferred, the new holder shall replace the former in the rights and obligations pertaining thereto.”

(xi) ***Establishment of a Federation of WUAs:*** The bylaws of some of the WUAs, as in Mexico, Colombia, Tamil Nadu and Orissa, include provisions enabling the establishment of a federation, or an Apex Committee, encompassing registered WUAs in one command area. Those bylaws specify the responsibilities of the federation, and the relationship between such a federation and each of the affiliated or member WUAs. Usually, the presidents of each of the WUAs that decided to establish or join such a federation would represent their WUA in that federation. The federation would have an advisory non-binding role over the member WUAs, and may be used to resolve any disputes among such member WUAs, or between WUAs and the irrigation agency. Another purpose that could be achieved by establishing a federation of WUAs is that such a federation "... permits greater economies of scale in the use of maintenance machinery and equipment, purchased by the WUOs (Water Users' Organizations) or turned over to the WUOs at the time of transfer, and thereby reduces the cost of maintenance and operation for all farmers in the district."³⁸ In addition to the advantages of economy of scale, federations could be entrusted with responsibilities over the next higher level of the irrigation system. Moreover, they can deal with external agencies with greater authority than a single WUA. Box 2.6 describes the objectives of one Colombian Federation of Irrigation Districts, known locally as the "FEDERRIEGO."

³⁸ See Cecilia M. Gorriz, Ashok Subramanian and Jose Simas, "Irrigation Management Transfer in Mexico, Process and Progress," World Bank Technical Paper No. 292, page 27 (1995).

Box 2.6: FEDERRIEGO's Objectives, Colombia

"In accordance with the by-laws in force, FEDERRIEGO's objectives are:

1. To consolidate and represent affiliated irrigation districts before public, private, national and international agencies in all matters pertaining to the management and use of lands which have irrigation and/or drainage infrastructures and related works.
2. To collect agricultural statistical information on irrigation districts, affiliated or not, to be made available to the Ministry of Agriculture, to HIMAT, to Regional Development Corporations, to Agricultural Federations and Associations, etc. in order to design national agricultural programs and to regulate markets for products produced by the irrigation users.
3. To foster the exchange of technical and administrative experiences with a view to promoting the development and more efficient use of irrigated areas.
4. To contribute to the consolidation of all associations and their members by acting as arbitrator to disputes among users, and by organizing communication and exchange systems with other related national unions and international public and private land reclamation agencies.
5. To promote the commercialization of the users' agricultural products as well as their national and international marketing.
6. To encourage the use of new or different production systems to protect natural resources and prevent environmental pollution or mitigate its impacts.
7. To promote the establishment of new *Irrigation District Users' Associations* so that they can take over the management of land reclamation districts.
8. To encourage the creation of new irrigation districts and the optimization of existing ones, and to act as the executing agency for new works.
9. To serve as a broker in the exchange of goods and services among affiliated members."³⁹

³⁹ See Gilberto Garcia-Betancourt, "The Emergence of FEDERRIEGO: The Colombian Federation of Irrigation Districts," International Irrigation Management Institute, Short Report No. 8, page 5 (1994). For the full name of "HIMAT" see supra note 18.

CHAPTER 3

THE TRANSFER AGREEMENT

The transfer agreement is the agreement between the WUA and the irrigation agency in which the irrigation agency agrees to transfer to the WUA responsibilities for operation and maintenance of certain parts of the irrigation system, including the drainage system, and the collection and remitting of water charges; and the WUA agrees to carry out such responsibilities. This agreement may also be called “Memorandum of Understanding (MOU),” “Transfer Protocol,” “Concession Agreement” or just “Concession.” The issues that such transfer agreement would need to address include:

(i) ***Area and Irrigation System to be Transferred:*** The agreement would need to define clearly the irrigated area to be transferred, specifying the size of the area, and the command under which it falls, and including the irrigation system existing there that is being transferred. The system to be transferred is usually the irrigation system at the level of primary, secondary and tertiary, including the drainage of such areas too.⁴⁰ A copy of a map showing such area may be attached to the agreement. The agreement would specify whether the ownership of the irrigation system, including the land and structures and works thereon, remains with the irrigation agency or is being transferred to the WUA, together with the operation and maintenance of such irrigation system.⁴¹ Provisions should also be included clarifying whether the ownership of any ancillary equipment is being transferred.

(ii) ***Interim Joint Management:*** Some agreements may provide for a joint management of the irrigation system for a short period of time by both the

⁴⁰ The system to be transferred may also be called distributary/minor/subminor, or the irrigation system at the level of distributary and the system below it.

⁴¹ In Chile ownership of the irrigation and drainage system itself, including dams, can be transferred to the WUA. See Renato Gazmuri S., “Chilean Water Policy,” International Irrigation Management Institute, Short Report No. 3, page 8 (1994).

irrigation agency and the WUA. The rationale for such joint management is to prepare the WUA, during this interim period, for taking over full responsibility for operation and maintenance of such irrigation system. During this interim period which may run for up to one year, officers of the irrigation agency would train WUA representatives in compiling necessary data, and preparing and testing operation and maintenance plans for the distributaries, minors and subminors to be transferred to them. They would hold joint inspections to identify any problems in the irrigation and drainage system, and to agree on how to deal with them. Box 3.1 gives more details about such interim joint management in the State of Orissa in India.

Box 3.1: Joint Management, Orissa-India

“Joint management refers to operation and maintenance (O&M) carried out jointly by the Water Users’ Association and Government. During this phase, the Water Users’ Association will learn how to manage the entire system that would be turned over to it. Joint management phase will begin when (i) the Water Users’ Association has been formed and registered, thereby implying that informal outlet committees are in place; and (ii) office bearers of the Water Users’ Association have been established with relevant bank account. During this phase, the following activities will be undertaken:

- (i) Close collaboration between the Government (Project officials) and the Water Users’ Association through information exchange and transfer of skills.
- (ii) Government (Project official will prepare an operation plan for the entire irrigation system of the project concerned showing the water availability, allocation made for irrigation, drinking water, industrial and other uses. The Project officials will also prepare the method of distributing water to various distributaries, i.e., opening/closing of canal and ON/OFF periods for all the distributaries and for the distributary of the concerned Water Users’ Association. The Water Users’ Association in turn will prepare the operation plan for the distributary under its jurisdiction. The respective operation plans will be discussed and modified as required.
- (viii) During the period of joint management, the Government will reserve the rights to operate the headworks and the main system. Ownership of the system and related works will continue to vest with Government. Normally water supply to the distributary will be in accordance with the distributary operation plan prepared, discussed and agreed to by the Government and the Water Users’ Association. However, supplies to the distributary may be increased or reduced in proportion to its share in case of short supply of water in the system. To carry out its responsibility the Government will deploy necessary field staff. The Government will share with the Water Users’ Association relevant data in respect of canal design/actual capabilities and discharge, water levels at different outlets, water allocation, design details of APMS where applicable, seepage and operation losses. The Government will also maintain the main canal and branches to ensure designed discharge at the head regulator. It will undertake repairs arising due to natural calamities such as earthquakes, heavy rains or other unforeseen events. During the joint management phase, Government will train the Water Users’ Association in irrigation management and will also learn about former perception of water and service needs for agricultural productivity.
- (x) After satisfactory completion of the joint management phase (normally 3 to 6 months), the turnover will commence.”⁴²

(iii) **Transfer of the Irrigation System:** Transfer of the irrigation system to the WUA for operation and maintenance is also known as the turnover or the handover. This transfer will be preceded by a number of actions, including the preparation of an inventory of the works, structures and equipment to be

⁴² Orissa, Model Memorandum of Understanding, (1995). “APMS” in Subsection (viii) is an abbreviation for “Adjustable Proportional Modules.”

transferred, joint inspections of those works, structures and equipment by both the irrigation agency and the WUA representatives, carrying out of necessary testing, and repairs, if any, at the irrigation agency cost, and handing over management of the system, along with all necessary documents and instructions, to the WUA. The WUA would need to satisfy itself that the system is, indeed, in a good working condition, as the transfer agreement would include provisions that the irrigation system, at the time it is transferred, was in good working condition.

(iv) *Responsibilities of the Irrigation Agency:* The agreement would spell out clearly the responsibilities of both the irrigation agency and the WUA. Responsibilities of the irrigation agency would include handing over the system in a reasonably operating manner, delivery of water to the WUA in bulk at the agreed time and providing the WUA with any agreed upon financial assistance and other benefits. The agreement could include provisions absolving the irrigation agency from liability should it be unable to deliver the agreed upon amount of water, or unable to deliver it at the agreed time, for reasons of force majeure, or act of God. In periods of water scarcity or emergency, after the demand for domestic and other priority uses is satisfied, the irrigation agency would usually have the authority to decide that the remaining water for irrigation shall be allocated to crops of utmost importance to the community there. Moreover, the irrigation agency may give itself the right, in case of emergency and to prevent further serious damage to the irrigation system, and in consultation with the WUA, to use any farm area for transportation of workers and equipment. The use of such farm area in case of emergency should be without prejudice to the rights of the affected farmer for full compensation for any physical damage caused to his land, water distributary system or crops.

As we have seen in the previous chapter, the executive body of the WUA may include representatives from NGOs and the irrigation agency who would attend meetings of the executive body, but usually do not have the right to vote.

Conversely, in some countries, such as the Philippines, farmers may also be represented on the boards of government agencies dealing with agriculture and irrigation. Box 3.2 describes one such case of representation in the Philippines.

Box 3.2: *Farmers' Representation in Government Agencies, The Philippines*

"Section 6. Farmers' Representation in Government. After voluntarily organizing themselves on the barangay, municipal, provincial and regional levels, the farmers who have been elected through all levels shall elect from among themselves their national officials who, notwithstanding existing laws to the contrary, shall occupy a seat in the boards of concerned government agencies such as, but not limited to, the Philippine Coconut Authority, the National Food Authority, the Philippine Crop Insurance Corporation, the National Irrigation Administration and others.

On all other levels, the farmer representatives shall serve as members of planning and implementing units of the local governments and shall act as the official representatives of the farmers with whom the Government shall coordinate, provided that all farmer representatives are members of primary farmers' organizations preferably co-operatives and have been elected in all preceding levels."⁴³

(v) ***Responsibilities of the WUA:*** A number of the responsibilities of the WUA detailed in this section of the agreement are usually spelled out in the bylaws of the WUA, but may still be included in the transfer agreement to clarify the obligations of the WUA towards the irrigation agency. Such responsibilities would include: operating and maintaining the irrigation system transferred to it, including the drainage system, in a proper and satisfactory manner; receiving water in volumetric basis, and distributing such water equitably and in a timely manner, based on clearly defined criteria, to both members and non-member farmers in the operation area, and collecting the water charges agreed with the irrigation agency. The responsibilities also include establishing the operation and maintenance fund, and maintaining and repairing, in a satisfactory manner, all the field channels, field drains, minors, subminors and distributaries, together with the structures thereon in the operation area of the WUA. In addition, the WUA may be responsible for the maintenance and repairs of any equipment and machinery transferred to it. Such equipment and machinery may be transferred to the WUA

⁴³ See Philippines, Magna Carta on Small Farmers Act, supra note 9, Chapter 2, Section 6.

as part of the irrigation system for which it is now responsible, or may be separately leased by the irrigation agency to the WUA at an extra cost.

The WUA would also be responsible for the security of the infrastructure transferred to it, and such responsibility could either be carried out by the members of the WUA themselves, or through hired labor. Maintenance would usually include silt clearance and removal of weeds from all water courses under the WUA. It would also include earthwork to restore banks and repairs to other structures, in addition to maintenance of service roads. Usually minor repairs are carried out by the WUA and major repairs by the irrigation agency. Definitions of what is “minor” and what is “major” should be included in the transfer agreement (repairs to damage caused by natural disasters such as heavy rains, floods or earthquake are usually considered major repairs). The WUA may be required to prepare an annual maintenance program for the irrigation system under its responsibility, including any machinery and equipment, and to submit such program to the irrigation agency for approval prior to implementation. Operation and maintenance of the irrigation and drainage system, other than the one transferred to the WUA, would continue to be the responsibility of the irrigation agency.

The executive body of the WUA would have the authority to carry out any actions that would assist in fulfilling the WUA’s responsibilities under the transfer agreement. In Nepal, the executive body is authorized to divide the command area into blocks/subcommittees for better irrigation management, and coordinate their activities, as detailed in Box 3.3.

Box 3.3: Provisions Relating to Blocks/Subcommittees, Nepal

“8.1 In order to provide improved and uniform water facilities throughout the command area, the MC (Managing Committee) may divide the command area into block/sub-committees and establish their functions, duties and powers as appropriate, and coordinate all activities accordingly. The members of the block/sub-committee shall be nominated/elected from among the beneficiaries.

8.2 The introduction of blocks for better irrigation management shall be on the basis of physical settings and the extent of the irrigated area, the nature and magnitude of construction, and operation and maintenance of the system for the proper distribution of irrigation water in each block.”⁴⁴

The agreement would authorize the irrigation agency to suspend supply of water to the WUA if maintenance and repairs were not being carried out properly, or to carry out the repairs itself and recover the cost from the WUA. The agreement would also include provisions on how disputes between the WUA and the irrigation agency, arising in the course of the operation and maintenance of the transferred irrigation system, would be settled. Such disputes could be referred to a committee comprising one representative from the irrigation agency and the water users' federation.

(vi) **Termination of the Transfer Agreement:** Although the enabling law may include provisions on the termination of the transfer agreement, usually more detailed provisions are included in the transfer agreement itself. The agreement terminates after expiry of the number of years specified in the transfer agreement, which may be as high as twenty years as in Mexico. However, the agreement would usually be subject to renewal for another similar period. Moreover, failure by the WUA to comply with the provisions of the agreement, including the failure to properly operate and maintain the irrigation system transferred to it, or to make timely payment of water charges, or to take corrective measures within a specified period of time, as agreed with the irrigation agency, would give the irrigation agency the right to terminate the transfer agreement. Other reasons given for the irrigation agency to terminate the agreement include

⁴⁴ See Nepal, Farmers Irrigation Association Bye-laws, supra note 22.

alteration of the manner of using the water and infrastructure without prior authorization of the irrigation agency, and failure to provide the irrigation agency with any information and documentation required from the WUA. Termination is usually preceded by a warning, or by suspension of some of the rights of the WUA. Box 3.4 reiterates the grounds for termination of the transfer agreement in Mexico, as laid down in the Instrument Awarding Concession, and the National Water Act.

Box 3.4: Revocation of the Concession, Mexico

"11. This concession and permit may be revoked should the Concession Holder repeatedly, and without heeding the Commission's recommendations:

- I. Alter the manner of using the water and infrastructure without the Commission's authorization.
- II. Fail to provide the Commission with the information and documentation required of it pursuant to the present Instrument.
- III. Fail to maintain in good condition the irrigation infrastructure forming the subject of this permit and the machinery and equipment furnished to it by the Commission.
- IV. Fail to make timely payment to the Commission of the charge for bulk water supply, and fail to make payment for the services provided by the Company.
- V. Fail to discharge the obligations stipulated in the present Instrument in the case of an emergency.
- VI. Amend its Articles of Association without authorization from the Commission.
- VII. Fail to comply with any of the obligations set forth in this Instrument and/or in the Operating, Maintenance and Management Instructions.
- VIII. Engage in any of the actions mentioned in Article 118 of the National Water Act."⁴⁵

Article 118 refers, in turn, to Article 27 which reads: "Article 27. The concession or granting of rights for the exploitation, use or development of national waters may be terminated only by:

- I. Expiration of the period specified in the license of concession, except when extended in accordance with Article 24 or the rights have been relinquished;
- II. Revocation on the grounds of nonperformance, in the following cases: (a) Use of water in greater volumes than authorized, when for the same cause the beneficiary's rights were previously suspended; (b) Failure to pay the fees or amounts established by tax legislation for the exploitation, use or development of national water or for services related to its supply, when for the same cause the beneficiary's rights were previously suspended; (c) Nonperformance of authorized works for the development of water and control of its quality, in accordance with the terms and conditions set by this Act and its regulations; (d) Assignment of concession rights in violation herewith; or (e) Noncompliance with the provisions of this Act regarding the exploitation, use or development of national water or the preservation and control of its quality, when for the same cause the offender had acted in such a manner as to have caused the prior application of a sanction subsequent to a definitive ruling, in accordance with Article 120(II and III).
- III. Forfeiture declared by the Commission, when the national waters have not been exploited, used or developed for three consecutive years;
- IV. Redemption of the concession or grant for reasons in the public interest, through the payment of an indemnity, the amount of which shall be set by experts, in accordance with the General Act Governing National Assets; or
- V. A ruling by the courts."⁴⁶

⁴⁵ See Clause 11 of Instrument Awarding Concession, supra note 23.

⁴⁶ See National Water Act, supra note 7.

CONCLUSION

The review and analysis in the preceding chapters of the enabling law, the bylaws of the WUAs, and the transfer agreements between the irrigation agencies and the WUAs has shown a number of variations in the manner in which the different issues are addressed. Those variations are, in my view, the inevitable result of the different environment in which each WUA is operating, and the length of experience of each country with the concept of participatory irrigation management.

The existence of a basic law on water, or on WUAs, is certainly an important parameter for the other parts of the legal framework because the basic law would usually specify the main issues that need to be included in the bylaws and transfer agreements, and would also determine the manner in which those issues are addressed. Those issues would usually include the procedure for establishing WUAs, the rights and duties of the WUA and the irrigation agency and the relationship between them, and the structure of the water rates and other fees.

The effects of the environment in which the WUA operates manifests itself in many ways. The different approaches by the Indian states to the issue of whether membership of the WUA should be restricted to registered land owners, or can be extended to farmers in possession of the land, reflects, in my view, the debate within India on the rights of tribal communities on the land they have been cultivating for a considerable period of time, without having a formal title to such land. It also reflects the opposing views on whether encroachers on farm land, who are prevalent in some parts of India, should have any rights over such land. Moreover, the manner in which the general assembly is elected in Turkey is, perhaps, dictated by the large geographical area covered by the WUA, which could have rendered meetings of the general body difficult. Instead, each sub-unit of the WUA would elect its representatives to the general assembly that

functioned as the general body of the WUA. On the other hand, although the WUA in Tamil Nadu, it seems, has a manageable size of a general body of the WUA, the manner in which the executive body is elected is perhaps meant to guarantee a wider representation of all the sluice commands under the WUA, thus preventing control of the executive body by one group of farmers. However, the provision in Orissa allowing farmers with 51% of the land holding to form a WUA may result in favoring farmers with large holdings, and could be used to exclude small farmers.

The early stage of, and absence of long experience with, participatory irrigation management in India prompted both Tamil Nadu and Orissa to introduce the concept of interim joint management, with the objective of ensuring that farmers are trained before they take over the responsibility for operation and maintenance of such parts of the irrigation system. On the other hand, the relatively advanced stage of participatory irrigation management in both Mexico and Colombia has resulted, *inter alia*, in the establishment and operation of federations of WUAs in those countries, with elaborate functions for such federations. It has also resulted in the establishment of detailed procedures for calculating the fee for water conduction losses, and in an agreement for payment of such a fee. Moreover, the detailed provisions on water rights and water markets in the National Water Act in Mexico is another indicator of the advanced stage of water law, including the provisions on WUAs in that law.

INDIA

**GOVERNMENT OF ORISSA
DEPARTMENT OF WATER RESOURCES**

**MODEL
BYE-LAWS OF
WATER USERS' ASSOCIATION**

**MODEL
BYE-LAWS OF WATER USERS' ASSOCIATION**

1. NAME:

The name of the Society shall be the _____ Water Users Association. It is registered as a Society under the Societies Registration Act, 1860, bearing registration No. _____ Dt. _____. For all purposes, the Society referred to hereunder shall be identified as the "Association."

2. ADDRESS:

The registered office of the "Association" is situated in the village _____ PO _____ Police Station _____ Tehsil _____ Block _____ District _____ Orissa.

3. AREA OF OPERATION:

The "Association" will be having jurisdiction in the entire command of distributary/minor/Sub-minor _____ offtaking from disty/Branch Canal _____ of _____ Irrigation Project.

4. OBJECT:

The main objects of the Association shall be to:

- (i) Prepare O&M plans for the supply of water and monitoring of the same.
- (ii) Provide required talents, skills and management practices in the best interest of the farmers and undertake all reasonable steps to maintain the system transferred to the "Association" efficiently and economically with active participation of the member of the Association.

Maintenance will include:

- (a) Silt clearance;
- (b) Weed clearance;
- (c) Repairs to structures. APMS, self-recording gauges, tail gauges, etc.;
- (d) Maintenance of service roads; and
- (e) Environmental protection.

- (iii) Construct, maintain and operate all the water courses, FIC (Field Irrigation Channels, i.e., the channel constructed from the outlet up to turnouts including all structures, turnouts, road crossings, etc.) and the FDC (Field Drainage Channels), i.e., the channel constructed from the field to the link/common drain to remove excess irrigation rain water and all structures in the Chaks. Technical support of Government in appropriate Department may be availed of in this regard.
- (iv) Co-ordinate with Government in appropriate Department regarding availability of water at the head control point.
- (v) Distribute water from canals as per schedule prepared for different rotation of water supply (Warabandi) in an orderly manner to all farmers, strictly according to entitlement and to enforce discipline in water use among the users.
- (vi) disseminate quickly all the information messages received from various Departments in respect of canal water supplies, opening/closing dates of canals, agronomical aspects, to all the members.
- (vii) educate the farmers/members and train them in preparing the fields suitably for receiving irrigation water, adoption of modern methods of irrigation to conserve water and attain high application efficiently.
- (viii) educate farmers on irrigated agriculture, suitable crop varieties, sowing times, crop combinations package of practices for optimal and efficient use of water for increasing agricultural production as well as productivity and profits of the farmers.
- (ix) receive water in bulk from Government in appropriate Department at prescribed rate, at the head of the Minor/Distributary and distribute the same equitably and timely as per the procedure laid down/approved by the Government to all the users, either on volumetric basis or area basis as per prevailing rules prescribed by the Government.
- (x) aid and advise farmers to adopt planned cropping pattern consistent with schedules of water deliveries.
- (xi) observe the gauge/measuring device of water supply in the minor/Distributary, laterals and outlets and to check the same as per authorised discharge stipulated by Government in appropriate Department and to take up the matter with the Department in case of variations.

- (xii) prepare an annual report showing (a) water received and water utilized; (b) area irrigated under different crops; and (c) a balance sheet of the amount received in the year and the amount spent on various items.
- (xiii) adopt frequencies rotations, opening and closing time of canals in view of the cropping pattern actually developing in the command in consultation with Government in appropriate Department.
- (xiv) make best use of natural precipitation and ground water in conjunction with the canal water.
- (xv) resolve disputes in sharing of water by the individual farmers under the outlets or group of farmers under the outlets of lateral/minor/Distributary.
- (xvi) co-ordinate with all the concerned agencies, department connected with water supply for improved irrigated. agriculture.
- (xvii) collect water charges for the use of water from canals as per rules prescribed by Government from time to time.
- (xviii) raise funds for the O&M fund by way of:
 - (a) Contribution from the members at uniform rate per hectare of holding from all the users.
 - (b) Donations/Grants/Subsidies received from the Government or other welfare funds and Institutions.
- (xix) maintain accounts of the management cost and O&M costs separately and have them audited annually by appropriate Agency as directed by Executive Body.
- (xx) Any other work as would be delegated by Government/decided by the "Association."

5. MEMBERSHIP:

- (i) All land owners, within the area of operation of the "Association" will have the right to become members. All members will be the members of the General Body of the "Association." Enrollment as member will be by individual application on payment of enrollment fees and other fees as prescribed by the Government/Association from time to time. At least 51% of the registered land owners in the command area covered by the "Association" should be enrolled as members or the land holdings of the members should cover at least 51% of the total area under the proposed

“Association” before registration. Every member will have to place his water demand to the “Association” in the prescribed format and it is obligatory for the “Association” to review all such demands of the members and to inform the decision taken. Every member shall have the right to receive water in each rotation and in each season as per the policy laid down by the “Association” and as per the seasonwise quota sanctioned for the “Association.”

NOTE:

The membership fees may be Rs. 10.00 per member or as would be determined by the “Association.:

- (ii) Upon the land owner selling his land or absolutely conveying the same by way of gift under his will or otherwise, the purchase or donee shall automatically become a member of the “Association” and shall be admitted as member on payment of the share amount if not paid by the land owner.

NOTE:

- (i) In the event of transfer of the entire holding, the land owner so transferring the land will automatically cease to be a member of the “Association.”
- (ii) A member of the “Association” can authorise in writing any of his share croppers/holders to perform on his behalf all or any of the functions of a member required of his in the bye-law.

6. SHARE:

Holding of shares is compulsory. Every member shall hold a share on per hectare contribution basis as determined by the “Association.”

NOTE:

A sum of Rs. 250.00 per hectare may be ideal rate of share.

7. DISQUALIFICATION:

A member who fails to pay his/her water charges to the Association consecutively for a period of two Kharif seasons shall cease to be a member of the “Association.” However, the membership may be restored on payment of all the arrear dues along with re-enrollment fee.

8. ORGANISATIONAL SET UP:

Chak Committee:

- (i) A “Chak” is the area commanded by an outlet. All members whose land is situated in the Chak, shall be members of the outlet group. Each outlet group will elect three members to form the “Chak Committee,” one of whom will be selected as leader. As far as possible, one of the members shall be from women, S.C/S.T Community. Representation should be distributed between head reach, middle reach and tail-end reach of the system (must necessarily be one from each reach).

- (ii) Water Users’ Association

A Water Users’ Association is an “Association” of all persons owning land within a hydrological delineated portion of the command area ranging in size from 300-600 Ha. It may be for each distributary or minor or sub-minor canal area including direct outlets clubbed to them. The Association will be formed and registered after enrollment of minimum 51% of members. All the land owners within the jurisdiction of the “Association will have right to become members of the Association.”

- (iii) Apex Committee

The irrigation project level/scheme level committee will be a federation of all “Associations” represented by their respective Chairman.

9. FUNCTION AND POWERS OF THE “ASSOCIATION”:

- (i) The “Association” will have the responsibility for receiving allotted bulk supply of water from the irrigation project authorities in appropriate Department of Government on payment at the prescribed rate and distribute the same to all the Water Users; whether members or not within the jurisdiction of the “Association” as per plan and schedule. Water so received will be for irrigation purpose only.
- (ii) Maintain and operate the Minor/Distributary/laterals, FIC/FDC, etc. including lining, earth work, structures, etc. already turned over by Government to the control of “Association” to the satisfaction of all concerned by meeting the expenditure from out of the O&M fund created by the “Association.”
- (iii) Demonstrate and practice improvement on farm water management method for improving field application efficiency in the individual farmer’s field.

- (iv) Make best use of natural precipitation and ground water in conjunction with the canal water for increasing irrigation and cropping intensity in the command.
- (v) Develop sense of economy in water use among the users. Besides, it will control wastage or misuse or unauthorised use of water.
- (vi) Co-ordinate with Water Resources, Rural Development, Agriculture and Animal Husbandry Department, etc. in connected matters, prepare water budget, decide the date of supply of water and frequencies, etc.
- (vii) The “Association” would be responsible for levying charges or maintenance and repair of irrigation/drainage channels, structures within command of concerned “Association.”
- (viii) Ensure collective and community responsibility of the farmers to collect water charges from water users and payment Government as per rules prescribed by Government from time to time.

NOTE:

1. The “Association” shall have the right to charge water rate to the members of the “Association” as is to be decided by the Association” itself. The “Association” may charge higher water rate to the non-members and will have right to collect such water rate from them. Higher rate to be charged to the non-members shall be prescribed by the “Association,” however, it shall not be more than 30% extra of the rate applied to members of the “Association.”

2. Farmers, whether members or not of the “Association,” will be levied with water rates for use of water percolating through the distributary/minors/sub-minor/drains, etc. within the command area of the “Association” on par with members and non-members using normal irrigation water.

- (ix) The “Association” may set up different working committees for distribution, maintenance and repair of Minor/Distributary lateral, FIC/FDC, etc. within the jurisdiction of the “Association.”
- (x) The “Association” will resolve disputes among farmers in respect of water distribution and allied matters.

Except otherwise provided, resolution of the “Association” shall require approval by majority of members, casting votes in person.

10. GENERAL BODY:

All persons owning land and using water and who have been enrolled as members of the “Association” shall constitute the General Body of the “Association.”

11. EXECUTIVE BODY/MANAGEMENT COMMITTEE:

- (i) The day to day affairs of the “Association” shall be governed by the Executive Body/Management Committee.
- (ii) The Executive Body will consist of following members.
 - (a) Chairman.
 - (b) Vice-Chairman.
 - (c) Secretary.
 - (d) Treasurer.
 - (e) All the leaders of the Chak Committee as members.
- (iii) Chairman, Vice-Chairman, Secretary and Treasurer will be elected. The posts will not carry any remuneration. The “Association” by resolution may also co-opt any officer of Government Department, NGOs, or representative of any other institution genuinely interested in irrigated agriculture as member of the Executive Body. Besides, one representative of the Government (irrigation division within which the “Association” is operative) will be on the Executive Body of the “Association” as an ex-officio honorary member.

12. TRANSACTION OF BUSINESS:

Subject to the control and direction of the General Body, the business of the “Association” shall be transacted by the Executive Body by means of resolutions passed at a duly convened meeting or by means of resolutions by circulation.

13. FUNCTIONS & POWERS OF EXECUTIVE BODY:

- (i) The Executive Body shall have the powers and duties necessary for the administration of the affairs of the “Association” in keeping with the provisions of the bye-law. For that matter, it will set out policy framework for the “Association,” and make rules of business for the Executive Body for its smooth functioning.
- (ii) Enter into agreement with the Government in appropriate Department for obtaining irrigation water in bulk.

- (iii) Decide the cropping pattern and area to be irrigated under each crop within the “Association’s” area of operation.
- (iv) Decide the irrigation schedule and distribute water outlet-wise.
- (v) Take care, upkeep and surveillance of irrigation in the area of operation of the “Association” and the common areas and facilities.
- (vi) Designate, employ on remuneration and dismiss personnel necessary for the operation, maintenance and repairs of irrigation and drainage system.
- (vii) Levy charges (for members and non-members) for operation, maintenance and repairs of irrigation and drainage system.
- (viii) Collect water rates/charges, contributions from water users and remit Government dues.
- (ix) Raise/obtain funds from various approved sources for the smooth functioning of the “Association.”
- (x) Sanction working expenses, count cash balance, engage labour, organize labour contribution from land owners of award contracts for O&M of irrigation and drainage system.
- (xi) See that cash book is written promptly and is signed by the Treasurer.
- (xii) Provide manner in which audit and accounts of the “Association” should be carried out.
- (xiii) Inspect irrigation and drainage system, distribution of water and ensure prevention of wastage, misuse or unauthorised use of water.
- (xiv) Scrutinize accounts kept by Secretary and/or Treasurer and examine the registers and accounts books and take steps for the recovery of all sums due to the “Association.”
- (xv) Prepare annual budget and get approval from the General Body.
- (xvi) Hear and deal with complaints of land owner and resolve disputes.
- (xvii) Correspond with concerned Departments and agencies concerned with matters, and keep good rapport with them.

- (xviii) Allow Chak Committees and others to organize and carry out repairs of irrigation and drainage systems under their respective outlets, if so desired by themselves through labour and materials contributions.
- (xix) Make best use of natural precipitation and ground water in conjunction with irrigation water.
- (xx) Educate farmers in cropping pattern, water management, optimal and efficient use of water and inputs for increasing agricultural production, yields and their profits through trained irrigation community organisation.
- (xxi) Take any other action to ensure and help fulfill the objectives of the “Association.” For that matter the “Association” may suspend supply of water to the defaulting member/non-member and resume it on fulfillment of the terms and conditions.

14. FUNCTIONS & POWERS OF CHAK COMMITTEE:

The Chak Committee will be an informal organisation and will be responsible for:

- (i) Distribution of water below the outlet as per plan and programme prepared by the committee.
- (ii) Operation and maintenance of all the channels, structures within the Chak command.
- (iii) Any other activity as assigned by the “Association.”

15. FUNCTIONS OF THE APEX COMMITTEE:

It will have non-binding advisory rule only on overall water management and on issues of inter-Association relevance. Further, this committee will work as the go-between the “Association” and the Government in appropriate Department.

16. ELECTION AND TERM OF OFFICE:

The office bearers and other members of the Executive Body shall be elected by members of the “Association.” One of the elected members of the Chak committee will work as Chak leaders and he will also work as member of the Executive Body.

The tenure of the office of the elected Executive Body (office bearers) shall be three years. With regard to members of the Executive Body, the term of

one third number of members shall be fixed for three years in the first annual meeting of the "Association." The term of Office of the other one third number of members will be for two years and the term of office of the remaining one third for one year.

The members who will relinquish as such form the Executive Body will be decided by lottery. On such relinquishment they will automatically cease to be the leaders of their respective Chak Committees. However, they will continue to be the members of these said committees. Vacancies caused due to expiry of term of the members of the Executive Body will be filled up by selection from among other members of the respective Chak committee, who will also automatically become leaders of the Chak committees for the period they continue to be the members of the Executive Body.

However, any member of the Executive Body will not cease to hold office until his/her successor assumes office.

17. VACANCIES:

- (i) Any of the office bearers may at any time on notice in writing to the Executive Body retire from office.
- (ii) Any members other than the office bearers of the Executive Body failing to attend three consecutive meetings of the Executive Body without sufficient reason given in writing to the Executive Body, will automatically cease to be a member of the Executive Body.
- (iii) Any casual vacancy arising in any of the offices shall be filled up by the Executive Body by co-option to hold office for the rest of the period in respect of persons ceasing to hold office.
- (iv) The office bearers shall be eligible for reappointment.

18. REMOVAL OF OFFICE BEARERS:

Upon an affirmative vote by a majority (more than 50% of the members present) of members of the General Body of the "Association," any of the office bearers may be removed with cause and his successor elected as per procedure laid down.

19. PERSONS ON REMUNERATION:

The Executive Body may engage any person on remuneration as it deems proper to transact special business like construction, technical advice, audit and similar other business. The engagement will be purely temporary and time bound.

20. DUTIES OF OFFICE BEARERS:

(i) Chairman

- (a) The Chairman shall be the Chief Executive Officer of “Association.” He/She shall have the general powers and duties which are vested in the office of the Chairman of “Association” including but not limited to the powers to appoint various committee and sub-committees from among the members of the “Association” from time to time as he/she may in his discretion decide to be appropriate to assist in the conduct of the affairs of the “Association.”
- (b) He/She shall preside over the meetings of the General Body and Executive Body and all other meetings of the “Association” and conduct the proceedings.
- (c) If there be any legal dispute, the Chairman will handle such cases on behalf of the “Association.”

(ii) Vice-Chairman

The Vice-Chairman shall take the place of the Chairman and perform his/her duties wherever the Chairman is absent or unable to act under valid grounds. If neither the Chairman nor the Vice-Chairman is able to act, then the Executive Body shall appoint some other member of the Executive Body to act on an interim basis. The Vice-Chairman shall also perform such other duties as shall from time to time be entrusted to him/her by General Body/Executive Body.

(iii) Secretary

He/She shall convene all meetings of the Association and shall maintain the minutes of all meetings. He/She shall issue general circulars and notices and carry on all correspondences on behalf of the “Association.” He/She shall remain in charge of such books and papers as the General Body/Executive Body may direct and shall in general perform all duties incidental to the office of Secretary, i.e., execution of orders and resolutions of Executive Body.

All suits and matters instituted by or on behalf of the “Association” shall be instituted in the name of the Secretary and all pleadings, warrants, power of attorney, Vakalatnama, petitions, statements, etc. shall be signed by the Secretary and likewise in all suits and matters against the “Association,” the Secretary shall represent the “Association.”

(iv) **Treasurer**

The Treasurer shall be responsible for receipt of all subscriptions, fees, rates and charges, donations, grants and money, etc. from different sources as provided in the bye-law and issue receipts for the same. He shall receive, disburse and maintain daily accounts and shall at the end of the financial year get the same audited by the authorised Auditor and furnish an audited statement of all receipts and expenditures to the Executive Body.

21. MEETINGS:

- (i) Meeting of the Executive Body of the “Association” shall be held in the office of the “Association” or at any other suitable place convenient to the members from time to time, but at least once in a month during the irrigation season. The first meeting of the newly constituted Executive Body shall be held within ten days of election of office bearers.
- (ii) Annual General Body meeting of the “Association” be held in the month of May (preferably on second Saturday) each year. The elected Executive Body members shall be present at such meeting in accordance with the bye-laws. The General Body will decide on policy matters and allocate funds for O&M. The members may also transact such other business of the “Association” as may properly come before them, approval annual budget contribution from members and audited accounts of the previous year. The Secretary of the “Association” shall prepare the annual report and read out in the meeting.
- (iii) Two general seasonal meetings of the “Association” shall be convened one month before every Kharif and Rabi season for preparing crop plan, water budget, maintenance and repair of Minor/Distributary, FIC/FDC, etc.
- (iv) Special meetings of the “Association” shall be called by the Chairman as decided by the Executive Body or upon a petition signed by at least ten percent of members having been presented to the Secretary or at the request of the project authorities responsible for the supply of water to the “Association.” Government in the appropriate Department or any other office duly authorised by Government. The notice of any special meeting shall state the time and place of such meeting and the purpose thereof.

The minutes of the meetings shall be recorded, prepared and kept by the Secretary and shall be signed by the person presiding over the meetings. The minutes shall be read out and confirmed at such respective subsequent meetings.

22. NOTICE OF MEETINGS:

It shall be the duty of the Secretary to inform or send notice of each General/Seasonal/Special meetings stating the purpose thereof as well as the time and place of meetings to each member at least seven days prior to such meetings with copy to the Government in appropriate Department and concerned irrigation project authorities.

23. ADJOURNED MEETINGS:

If the meetings of members could not be organised for want of quorum, the members who are present may adjourn the meeting to a time not less than 24 hours from the time of the original meeting was called.

24. ORDERS OF BUSINESS MEETINGS:

The orders of Business at all meetings of the “Association” shall be as follows:

- (i) Signature/Thumb impression of all members present.
- (ii) Proof of notice of meeting.
- (iii) Reading out the minutes of the preceding meeting and ratification thereof.
- (iv) Report, if any, of committees set up.
- (v) Election of the committee (in cause of annual meetings).
- (vi) Unfinished business, if any.
- (vii) New business as per agenda and passing resolution.
- (viii) Vote of thanks.

25. QUORUM:

At all meetings, one third of total strength of the members shall constitute quorum for the transaction of business and the acts of members present at a meeting at which quorum is present shall be the acts of the Executive Body/General Body. Meeting having no quorum shall be adjourned from time to time and at any such adjourned meeting any business which might have been transacted as originally called may be transacted without further notice, provided there is a quorum present.

26. VOTE:

Every member shall have the right to vote and shall have any one vote. The Chairman shall have a casting vote in case of tie. The co-opted members will not have any voting right in electing the office bearers, etc. or in passing different resolutions, but may guide the members in the meeting regarding allocation of

water, general procedures for distribution, provision on the different Acts and Rules and other legal matters and finalisation of cropping pattern, irrigation schedule, crop intensification and diversification, etc.

27. ASSESSMENT:

(a) All the land owners within the area of operation of the “Association” and irrespective of the fact that they are enrolled as members of the “Association” or not, shall be obliged to pay the assessments imposed by the “Association” so as to meet all expenses relating to the “Association” in _____ Village _____ P.O. _____ Block _____ Tahasil _____ Dist. _____ which may include per hectare share contribution in respect of the agricultural holding water charges prescribed by the Government in appropriate Department _____ for the use of such water from any particular irrigation project and any other sums as assessed by the Government “Association.”

(b) The land owners in the area of operation of the “Association” are obliged to strictly follow the operation rules and procedures prescribed by the Government in appropriate Department or the “Association” in respect of water supplies, water use and conservation protection of the assets as entrusted to the “Association.”

28. MAINTENANCE AND REPAIRS:

1. Every member/non-member land owners in the area of operation of the “Association” shall carry out periodical maintenance of equaliser, i.e., irrigation channel constructed in his field by the member himself or Government to supply water from turnout to individual crop plots and the FIC in good order. The land leveling/shaping/bounds shall also be protected/repared for uniform distribution and conservation of water.

2. Every member/non-member land owner shall close the turnout of the FIC after completing the irrigation of his field.

3. Every member/non-member shall take water from the irrigation network only from the authorised turnout provided in the FIC and shall take water strictly according to the time allotted to him by Government in appropriate Department or by “Association” if volumetric supply in bulk is undertaken by the “Association.”

4. Every member/non-member shall take due care not to graze same cross the lateral minor, distributary, FIC/FDC or bunds constructed in the fields by

carts/tractors, vehicles or animal and the road bridges provided shall only be made use of for the crossing.

29. RIGHT OF ENTRY:

Every member shall get the right of entry to the Chairman, the Vice-Chairman, the Secretary, Member of the Executive Body or to any other person authorised by the Executive Body for inspection, supervision or for any enquiry in respect of disputes regarding sharing of water for maintenance and repairs of irrigation and drainage networks.

30. FUNDS:

There will be raised a fund called “Operation and Maintenance Fund (O&M Fund) by the “Association” in all or any of the following ways:

- (i) by shares.
- (ii) by contributions per ha. from the members and non-members.
- (iii) by donations from the members, land owners within the area of operation or any other Institution, Trust, State Government.
- (iv) by receiving subsidies, grant-in-aid from the State Government.
- (v) from profits which shall arise from the hiring implements/equipment to the farmers or from the margin of water rates in receiving bulk quantity of water on volumetric basis at the rates prescribed by State Government in appropriate Department from time to time and rates charges to the members after getting them approved from Government in appropriate Department.
- (vi) Commission charges received from the State Government in collecting water charges from the members and remitting them to the Government in appropriate Department.

31. INVESTMENT AND OPERATION OF FUNDS:

The “Association” may keep its funds under interest bearing fixed deposits in the Nationalised/Gramya Bank authorised by the Government in appropriate Department/Irrigation Projects authorities in joint account of Secretary and Chairman/Member authorised by the Executive Body. The interest accrued from the fixed deposit amount shall be spent on operation and maintenance of the system and other allied activities as decided by the Executive Body.

The Secretary may retain in his personal custody an amount not exceeding Rs. 1,000/- for petty expenses (exigency office expenses). All payments other than wages above a certain amount as decided by the Executive Body shall be made by cheques signed by the Secretary and the Chairman or any other member authorised by the Executive Body.

32. ACCOUNTS:

- (i) The Accounts for maintenance and repair of irrigation and drainage networks should be kept separately for each Unit so as to satisfy the members about the fair and equal attention paid by the “Association” to the upkeep of the distribution and drainage network under each unit. The Chak Committee should verify the accounts of respective Chak.
- (ii) The accounting years will be from 1st April to 31st March of the next year. The “Association” shall on or before 30th September in each year publish an audited annual financial statement containing the following:
 - (a) The profit and loss accounts.
 - (b) The receipts and expenditure of the previous year; and
 - (c) A summary of the property and assets and liabilities giving such particulars as will disclose the general nature of the liabilities and assets and how the value of fixed assets has been arrived at. Copies thereof shall be submitted to the irrigation project authorities/Government in appropriate Department not later than 1st October, every year. The following registers are to be maintained and presented to the appropriate officer for inspection.
 - 1. Daily cash transaction account
 - 2. Receipt book
 - 3. Members and non-members register
 - 4. Farmers demand for water register and irrigation schedule
 - 5. Minutes book
 - 6. Monthly cash transaction amount
 - 7. Permanent term deposit account
 - 8. Assets account
 - 9. Bank account
 - 10. Complaint register
 - 11. Visitor’s book

33. PUBLICATION OF ACCOUNTS AND REPORTS:

A copy of the last financial statement and of the report of the Auditor, if any, shall be kept in a conspicuous place in the Office of the “Association.”

Receipt and expenditure accounts, balance sheet, together with a report shall be placed before the general body meeting after the expiration of each financial year.

34. APPOINTMENT OF AUDITORS:

The “Association” shall appoint at its General meeting an Auditor who shall audit the accounts of the “Association” prepared by the Executive Body herein before provided and shall examine the annual return and verify the same with the accounts relating thereto and shall either sign the same as found by him to be corrected, duly vouchered and in accordance with law or specially report to the “Association” in what respect he finds it incorrect, unvouchered or not in accordance with law.

35. POWER OF AUDITOR:

The Auditor shall be entitled to call for an examination of any papers or documents belonging to the “Association” and shall make a special report to the “Association” upon any matter connected with the accounts which appears necessary for such reporting.

36. SUITS AND LEGAL PROCEEDINGS:

The “Association” shall sue and shall be sued in the name of the Secretary of the “Association.”

37. AMENDMENTS OF BYE-LAW:

The bye-laws may be amended by the “Association” in a duly constituted meeting for such purpose and no amendment shall take effect approve by absolute major, i.e., two thirds of the members of the “Association” and the modified bye-laws will be effective only after approval by the Government in appropriate Department and Registrar of Co-operative Societies.

38. LIQUIDATION/DISSOLUTION:

The “Association” may by special resolution determine that it shall be dissolved and for that purpose two thirds of the members of the General Body shall confirm in writing. Upon such liquidation/dissolution the property of the “Association” will be handed over to any other nearby Water Users’ Association

or to Government after satisfaction of all its debits and liabilities, or to the Court and action taken as per direction of the Court.

39. INTERPRETATION:

In case of conflict arising out of the reading of the bye-laws of the “Association the interpretation as given by the Government in appropriate Department shall be final.

40. SPECIAL PROVISION:

For the matters not specifically proposed for in these bye-laws, the provisions of the Societies, Registration Act, 1860 and rules made thereunder shall apply.

MEXICO

NATIONAL WATER COMMISSION

ARTICLES OF ASSOCIATION OF IRRIGATION UNIT

(Standard information. Rio Yaqui Irrigation District 041, Sonora)

**ARTICLES OF FARMER-USERS ASSOCIATION,
IRRIGATION UNIT K-61, UPPER MAIN CANAL
RIO YAQUI IRRIGATION DISTRICT 041, A.C.**

CHAPTER I

**NAME, PURPOSE, DOMICILE, DURATION
AND ASSETS OF THE ASSOCIATION**

Clause 1. The above-mentioned parties hereby agree to form a permanent, not-for-profit association to participate directly in the management, operation and maintenance of irrigation infrastructure, and in the appropriate management and use of water in the irrigation unit for which it will receive a permit or concession from the Federal Government through the National Water Commission.

Clause 2: The irrigation unit mentioned in Clause 1 above covers a total of 8,378 ha, to be irrigated through lateral canal intake K-61+572 and direct intake Km-61+900 of the Upper Main Canal, and also includes National Water Commission wells located within the unit.

The measurements and boundaries of the section are marked on the plan of Rio Yaqui Irrigation District 041.

Clause 3. The name of the Association shall be: “Farmer-Users Association, Irrigation Unit K-61, Upper Main Canal, Rio Yaqui Irrigation District 041, followed by the words *Asociacion Civil* or its acronym, A.C.”

Clause 4. The purpose of the Association shall be to:

- (a) participate in the management, operation, maintenance and upgrading of the irrigation infrastructure works existing in this irrigation unit, which is now formed into a Civil Association;
- (b) provide irrigation services to Association members;
- (c) collect and manage the fees and dues established both for irrigation services and for management and operation of the Association, water conduction losses, and maintenance and upgrading of the irrigation works used by the Association;
- (d) participate in socioeconomic studies carried out to determine the amount of fees to be charged for water service, and in periodic updating reviews, proposing the amounts to be charged;

- (e) execute all legal formalities necessary for the proper management, maintenance and operation of the Association's infrastructure, machinery and equipment;
- (f) construct the necessary infrastructure works for proper use of the water;
- (g) procure the movable and fixed assets necessary to the achievement of its purpose;
- (h) conclude financing agreements;
- (i) dispose of or encumber only those assets that are the exclusive property of the Association;
- (j) carry out all necessary routine and periodic maintenance;
- (k) train Association members to make optimum use of the water resources in the Association's area of influence;
- (l) coordinate with the Steering Committee of Irrigation District 041 in implementing research and technological development programs;
- (m) obtain from the National Water Commission such concessions and permits as are necessary for the achievement of its purpose;
- (n) take inventory of existing irrigation infrastructure;
- (o) participate in other entities whose purpose falls into one of the foregoing categories;
- (p) execute all types of procedures and conclude all types of contract, agreement or permit related to the purpose of the Association, and issue all types of document as necessary or desirable for the same purpose.

Clause 5. The Association shall be domiciled in Ciudad Obregon, Municipio de Cajeme, Estado de Sonora, Mexico.

Clause 6. The Association is set up for 99 years from the date of execution of its Articles to public deed, without prejudice to the right of its members to extend or reduce said duration.

Clause 7. The assets of the Association shall comprise member dues and such movable and immovable assets as may be acquired under whatever circumstances from its members or third parties outside the Association for the achievement of its purpose.

CHAPTER II

RIGHTS AND OBLIGATIONS OF ASSOCIATION MEMBERS

Clause 8. Both founder and future members of the Association shall be owners or possessors by whatever right of the lands located within the limits of the unit marked on the plan mentioned in Clause 2 above. They shall also be listed in the user register mentioned in Articles 57, 59 (III), 60, 63 and 64 of the Federal Water Act. In addition, all users listed in the register who, while not founder members of the Association, apply and pay for irrigation service, thereby tacitly agreeing to belong to the Association, shall also be deemed to be members with the same rights and obligations.

Clause 9. Following are obligations of the Association members:

1. Make punctual payment of the dues approved by the General Meeting.
2. In the event of any form of legal transfer of ownership or possession of a holding located within this irrigation unit, on which there are outstanding dues to be paid, these shall be paid by the persons to whom such ownership or possession is transferred.
3. Furnish the Association's sowing program to its Representative or *Zanjero*, always including real data, which shall be used as a reliable basis for preparation of the District's agricultural statistics. The sowing program may be adjusted in times of water shortage to take account of actual water availabilities.
4. Submit the sowing permit and irrigation authorization whenever required to do so, and always comply with the area and cropping stipulations contained therein.
5. Send to the Representative a written request containing water consumption requirements, in terms of number of liters per second.
6. Notify the Representative or *Canalero* 24 hours in advance whenever irrigation is to be stopped, regardless of whether the stopping date and volume delivered will be as specified in the

original request, or whether the date has been advanced and less water has been delivered.

Any Association member failing to comply with this requirement shall be obliged to pay or the entire volume requested.

7. Avoid water loss, failure to comply with this requirement resulting in application of the penalty set forth in Clause 34 (3) of these Articles.
8. Install irrigation lines and overflows [*desagues*] by connecting their canals to discharge works installed in the drainage ditches; they may not destroy the banks of the drainage ditches or let their overflows discharge into roads or other farmers' crops, and shall be liable in all cases for any damage they may incur.
9. When necessary, allow the passage across their lands of irrigation lines and overflows needed to serve neighboring plots, with due respect for established customs and easements.
10. Keep their irrigation lines, overflows and intake works clear of weeds and sediment, failure to do so resulting in this being done by the Association for its own account, members being charged an additional administrative fee of 30%.
11. Before initiating sowing, well owners shall apply for authorizations and/or agreements on the use of groundwater, runoff in the District's drainage ditches, and other sources of supply; for this purpose they shall submit a letter of non-indebtedness issued by the Association.
12. Members shall cooperate with the Association's Management Board, reporting in good time on any defects in or damage to the irrigation facilities.
13. They shall not move or cause to be moved any of the canal gates and dams within the system. Association members failing to comply with these requirement shall incur the penalties set forth in the corresponding chapter of these Articles.
14. Cooperate with the agricultural authorities in controlling plant pests and diseases.
15. Not contaminate water intended for users.

16. Not bring into the unit any cattle for which adequate grazing or shelter is not provided.
17. Advise the Management Board of the Association of any transfer of their property taking place after the National Water Commission's user register has been updated.

Clause 10. Association members shall have the following rights:

1. Receive their paid-for-water entitlement at the headworks of their canal, signing off to confirm that the volume of water received is the same as the volume requested.

When for reasons of force majeure the volume falls short of the volume requested, they shall sign only for actual consumption, expressed in liters per second, which shall be charged to their respective account.

When necessary, they shall request verification of the volume of water served, to be measured by the Representative in their presence, and should there be a new variation in actual consumption, the average daily balance shall be estimated and the respective amount charged to their account.

2. Attend the Association's General Meetings, each member having the right to one vote.
3. Report in writing to the Association management on any losses or damages they may suffer as a result of poor performance on the part of the Representative and Association personnel in general, and, if no response is received, approach the pertinent authorities.
4. Request their monthly statements of account from the Association.

Clause 11. Association members shall lose their membership if they cease to be listed in the user register of Rio Yaqui Irrigation District 041.

CHAPTER III

MAINTENANCE AND UPGRADING OF IRRIGATION INFRASTRUCTURE AND COMMON SERVICES

Clause 12. Cleaning and weeding of primary canals or laterals, secondary canals or sublaterals, tertiary canals, minors or subminors, and maintenance and

rebuilding of the related structures shall be carried out for the account of the Association, the users reimbursing the Association for the cost of all such works.

In cases where a user with a direct intake on the primary or lateral canal or with pumping equipment does not use the other canals for irrigation purposes, he shall still be obliged to pay his share of the cost of the works performed throughout the entire distribution network.

CHAPTER IV

FEES AND DUES

Clause 13. All Association members shall be obliged to pay the following fees and dues:

1. Fee for irrigation water service, to be set annually by the Technical Subcommittee on Operation and Maintenance of District 041, validated by the Steering Committee of the Rural Development District.
2. Dues for administration and operation of the Civil Association, to be set annually by the Management Board in accordance with a budget formulated and approved internally by the General Meeting, and ratified by the Subcommittee on Operation and Maintenance of Rio Yaqui Irrigation District 041.
3. Fee for conduction losses (evaporation and seepage). The percentage of the Association's losses shall be determined by the Management Board and a fee for conduction losses charged, based on the volume delivered to each user. The technical data used as a basis for setting the percentage of losses shall be approved by the Technical Subcommittee on Operation and Maintenance of Rio Yaqui Irrigation District 041 and the Commission for Administrative and Technical Oversight of Irrigation Units.
4. Fee for maintenance and upgrading of the Association's works. The amount of the budget submitted by the Management Board for cleaning, weeding, maintenance and upgrading of the Association's canals, following authorization by the Technical Subcommittee on Operation and Maintenance of Rio Yaqui Irrigation District 041, shall be prorated within the overall area of the irrigation unit operated by the Association, and a fixed fee per hectare, to be paid in advance, shall be set for each agricultural cycle. Fees for irrigation water service, and for management, operation, maintenance and upgrading of the Association's works

shall always be handled in separate accounts, and shall be allocated exclusively to the purposes for which they were approved.

CHAPTER V

GENERAL MEETINGS

Clause 14. The General Meeting is the Association's highest authority.

Clause 15. General Meetings, both regular and special, shall be chaired by the Chairman of the Management Board, or in his absence by his alternate, and in the latter's absence by the Administrative Secretary; in the absence of all of these by the Treasurer, and in his absence by the Treasurer's alternate.

The Chairman of the General Meeting shall have the broadest powers to decide on any event until such time as the General Meeting is legally installed.

The Commission for Administrative and Technical Oversight of Irrigation units and/or the National Water Commission shall sanction the legal installation and conduct of General Meetings. If, during the time between exit from office of one Management Board and Supervisory Board and entry into office of their successors, a conflict should arise in connection with the interpretation of these Articles, the Commission for Administrative and Technical Oversight of Irrigation Units shall have the authority to settle it, if necessary requesting the support of the National Water Commission through the Irrigation District.

Clause 16. Regular General Meetings shall be held at least once a year to discuss the following matters, as follows:

1. During the four months following the end of the fiscal year to discuss, approve, or reject, as appropriate, the Management Board's activities report and the financial statements submitted, as certified by the Supervisory Board, and to take all measures deemed appropriate.
2. During the month of August, and not later than September 10, to discuss, approve or amend the activities program, as well as the budgets for management, operation and maintenance of the works for the next agricultural cycle, and additional budgets and fees. Said budgets shall be submitted to the Subcommittee for Operation and Maintenance of the District following review by the Supervisory Board, at the latest by September 15 each year.

3. Every three years, during the four months following the close of each fiscal year, to elect members of the Management Board and Supervisory Board.
4. Be apprised of and decide any other matters included in the Order of Business.

Clause 17. Special General Meetings shall be held at any time, when deemed necessary by the Management Board, or at the request of Association members representing at least 50% of total membership plus one.

Clause 18. General Meetings shall be convened as follows:

1. By majority decision of the Management Board.
2. By the Supervisory Board, whenever a request from the majority of the Association members has gone unheeded by the Management Board, or when said Board has failed to call Regular and Special Meetings as provided in the Articles.
3. No notice of meeting shall be required when all Association members are represented.
4. Notices of General Meetings shall be issued at least 10 calendar days in advance, and shall be published in one of the major newspapers of the Association's domicile, and also posted in the most visible places in the Association's offices, stating day, time and place of the meeting and Order of Business.
5. In order that a Meeting convened for the first time may be validly conducted, it must be attended by at least 50% plus one of all Association members listed in the current user register for the Irrigation District.
6. If, in the absence of a quorum or for any other reason, a Meeting cannot be held on the date specified, a minute shall be drawn up and signed by those present, and a second notice shall be issued with the same Order of Business, calling a new Meeting within not less than five and not more than 10 days after the date set for the first Meeting, which notice shall explain why the first Meeting did not take place. This second Meeting shall be held regardless of the number of Association members present.

Clause 19. At General Meeting of the Association, the votes shall be counted individually, each member listed in the user register having one vote.

Clause 20. Minutes shall be taken of all Meetings and entered in a special book kept by the Recording Secretary.

The minutes shall be signed by those members of the Management Board and the Supervisory Board attending the meeting concerned, and by the designated tellers and by those members present who wish to sign them.

A copy of the Minutes shall be kept in a special file, together with all documentary evidence that the meeting was convened as provided in these Articles.

Resolutions and agreements legally issued by a General Meeting shall be binding upon all Association members, even those who were absent and those who cast a dissenting vote.

Clause 21. Association members may attend General Meetings in person or through an authorized representative, designated in accordance with the following requirements:

- (a) a smallholder shall be represented by another smallholder member bearing the respective letter of attorney;
- (b) A *colono* (?tenant farmer) shall be listed as such in the user register and may be represented by another *colono* member bearing the respective letter of attorney;
- (c) an *ejidatario* working his own *ejido* plot shall be listed in the user register and may be represented by another *ejidatario* bearing the respective letter of attorney;
- (d) members of collective *ejidos* shall be represented by the *Comisariado Ejidal*, who shall display the Minutes of Meeting that authorises him to represent *ejidatarios* who, besides being listed in the user register, are members of this Association.

Clause 22. The election to the Management Board of individuals from each sector shall take place at the General Meeting, by majority vote of users in the sector concerned. It shall also be determined which sector has the majority and which the second largest number of votes for the purposes of appointing Board members.

A user may hold another post on the next Management Board, but may not be elected for a third consecutive term. To be elected to the Board again, he must let at least one term go by.

Clause 23. The two *Comisarios* making up the Supervisory Board shall be elected as follows: one by the majority sector, and the other by the sector with the second largest number of votes of users present or represented at the Meeting.

CHAPTER VI

MANAGEMENT

Clause 24. The Association shall be managed by a Management Board composed of a Chairman, a Recording Secretary, an Administrative Secretary, a Treasurer, and two non-officer members, the first of whom shall replace the Chairman and the second the Treasurer.

To be a member of the Management Board or the Supervisory Board, an individual must be an Association user member duly listed in the user register for the District, may not have a criminal record or any record of bad conduct as a management-level officer in other Associations, and be up to date in payment of his dues.

In addition to the functions imposed upon members of the Management Board by the Articles of Association, the General Meeting, and the Board itself, they shall have the following obligations:

The Chairman shall enforce adherence to the Articles of Association and to decisions taken by the General Meetings and the Management Board. He shall chair General Meetings, Board meetings, and any special commissions that may be set up.

He shall also issue the necessary instructions to be follows in the event of violations of or noncompliance with the Articles and other provisions that Association members are required to observe.

The Administrative Secretary shall ensure that correct use is made of the Association's funds and resources, and shall oversee the Association's accounting procedures and coordinate and update the records. He shall also be responsible for members' monthly statements of account and for the filing of correspondence and other reports.

The Recording Secretary shall have care of and responsibility for the Association's Minutes Books, and shall be in charge of drawing up and consigning to those books the Minutes of General Meetings and Board Meetings and notices of meetings as provided in the Articles.

The Treasurer shall be the depository of the Association's assets, funds, or securities, and may not make any payments or incur any expenditure without prior authorization by the Management Board.

Clause 25. Members of the Management Board shall remain in office for three years. Management Board members shall serve on an honorary basis, receiving no pay for their services.

Until new members of the Management Board are appointed, or the new appointees have taken office, the previous members shall continue to perform their functions even after completion of the three-year term for which they were appointed, the Supervisory Board being obliged to exercise the powers vested in it under Clauses 18 and 32 of these Articles, assisted by the Commission for Administrative and Technical Oversight of Irrigation Units.

Clause 26. If the Association consists solely of *ejidatarios* and smallholders, the Management Board shall be composed of an equal number of members from each sector, as follows:

One sector shall provide the Chairman, the Chairman's alternate, and the Recording Secretary. The other sector shall provide the Treasurer, the Treasurer's alternate, and the Administrative Secretary.

The majority sector in the first Management Board appointed may choose the slate of offices it prefers. At the next election, it shall be responsible for the other slate of offices, since one sector may not hold the same offices in two consecutive periods.

Clause 27. If the Association's irrigation area contains *colonos* as well as smallholders and *ejidatarios*, the Management Board shall be composed of an equal number of members from the three sectors, as follows:

One sector shall provide the Chairman and his alternate, another sector shall provide the Treasurer and his alternate, and the third sector shall provide the two Secretaries.

In the first Management Board to be appointed, the majority sector shall choose between the office of Chairman and Treasurer, and their respective alternates. The sector with the second largest number of votes shall choose whichever of the two above-mentioned offices has not already been selected and the corresponding alternate. The minority sector shall always be the one to provide the two Secretaries.

In subsequent elections, the majority sector and the sector with the second largest number of votes shall hold the offices of President and Treasurer

on an alternating basis, it being prohibited for those sectors to hold the same offices for two consecutive terms.

Clause 28. For purposes of this chapter, a smallholder shall be understood to mean a person who owns or possesses land as provided in Article 27, XV (ii) of the Political Constitution of the United Mexican States.

A *colono* shall be understood to be an Association member listed in the user register as such. A person not meeting this condition shall be deemed to belong to the Smallholder sector for purposes of voting at the General Meetings, even if his area is less than 20 hectares.

An *ejidatario* shall be understood to be any Association member who has his own plot or the right to use a given plot in the case of a collective *ejido*, having acquired such right under *Resolucion Presidencial de Dotacion or Restitucion*, or having been awarded such right under Article 72 of the Federal Agrarian Reform Act, and who is also listed in the user register.

Clause 29. The Management Board shall have the broadest general powers and such special powers as may require power of attorney or special covenant, as provided in Article 2831 of the Civil Code for the State of Sonora, and it may perform the following functions, which list is illustrative and not exhaustive:

1. Perform acts of ownership with all ownership rights in relation both to assets and to the conclusion of all kinds of negotiations to protect said assets.
2. Manage the Association's assets and affairs with all the powers referred to in Article 2831 (2) of the Civil Code for the State of Sonora, and in Articles 11, 46, 47, 523, 876 and 878 of the Federal Labor Act.
3. Conclude, amend, replace and cancel contracts related directly or indirectly to the purposes of the Association.
4. Contract loans.
5. Procure assets as permitted by the legislation.
6. Settle disputes by compromise or submit them to arbitration, and renounce the Association's domicile, submitting it to another jurisdiction.
7. Represent the Association before the administrative, labor and legal authorities at the municipal, state or Federal levels, and

before arbitrators, with the broadest powers, including in the matter of preparation of and responding to interrogatories; challenge or abandon suits even in the case of *juicios de amparo*; accept judgments; bring and abandon complaints; bid at auctions and obtain the award of goods.

8. Grant and sign credit instruments, as provided in Article 9 of the General Credit Instruments and Operations Act.
9. Appoint and dismiss the Association's representatives and attorneys-in-fact and its agents and employees, establishing their functions and remuneration.
10. Grant and revoke general and special powers of attorney.
11. Execute decisions of the General Meeting.
12. Conclude contracts and perform all acts relevant to the Association's normal course of business.
13. At the request of the General Meeting, set the dues for the Association members.

Clause 30. The Chairman, Administrative Secretary and Treasurer of the Management Board shall represent the Association at law and their joint signatures shall be required for sales of real estate, issue of credit instruments, establishment of liens, or conclusion of any type of credit obligation. In all other cases, the Association may be legally represented by the signature of two of the above officers.

To enable this Association to become part of another body corporate, the Management Board shall first analyze and approve the latter's draft Articles of Association.

CHAPTER VII

SUPERVISORY BOARD

Clause 31. The Association shall have a Supervisory Board composed of two *Comisarios*, one being elected by the majority sector and the other by the sector with the second largest number of votes at the General Meetings.

Clause 32. The Supervisory Board shall have the following functions and obligations:

1. At least once a month, inspect the accounting records, the relevant supporting documents and cash on hand, and reconcile the monthly bank statements, being authorized, whenever it so deems necessary, to order audits, which shall be financed out of the cash available.
2. Examine the financial reports and furnish its opinion to the Regular General Meeting.
3. Ensure that matters deemed pertinent are included in the Order of Business of Supervisory Board meetings and General Meetings.
4. Attend Management Board meetings with the right to speak but not to vote.
5. Convene Regular and Special General Meetings should the Management Board fail to do so.
6. Participate in approval of the annual operating, maintenance, management and rehabilitation budgets proposed by the Management Board.
7. Provide unrestricted oversight at any time over the operations of the Management Board.

Clause 33: When Association members representing at least 50% plus one of total membership report and testify to the incapacity of the Management Board to manage and direct the Association, or to any other failing deemed serious by the majority of the Association members, the Supervisory Board shall be empowered to remove Management Board officers, after first hearing their defense, and to replace them by their alternates and call new elections within a period not exceeding three months.

CHAPTER VIII

PENALTIES

Clause 34. The Association shall apply penalties in the following cases:

1. When one of its members or any person in its service is discovered or reported to be drawing off unauthorized volumes of water, the penalty for the first offense shall be payment of a fine equivalent to ten times the cost of the volume drawn off, based on a 24-hour period and the cost of repair of any works that may have been damaged.

2. Any Association member who falls behind in payment of his dues shall not receive water for irrigation, and the Management Board shall be responsible for the cost of any water improperly supplied to him.
3. Any Association member who exceeds authorized areas or volumes for his first and second crops shall, in the next agricultural cycle, have his sowing area reduced by the percentage by which it was exceeded, and shall also be charged a fee for the volume authorized based on discounted pumping cost. In the case of a repeat offense, both penalties shall be doubled.
4. Any Association member discovered drawing off water on his land in a volume equivalent to cover 10% of his recorded consumption, shall be required to pay three times the cost of the volume lost in a 24-hour period and shall have his service suspended over the same period, the penalty being increased in the case of a repeat offense.

CHAPTER IX

FISCAL YEAR

Clause 35. The Association's fiscal year shall run from January 1 to December 31, except the first fiscal year, which shall start on the date of execution of this instrument and end on December 31.

CHAPTER X

DISBANDMENT AND DISSOLUTION

Clause 36. The Association shall be disbanded:

1. With the consent of the General Meeting.
2. Upon completion of the period set for its duration, unless the General Meeting shall have extended said period.
3. If it should prove incapable of achieving the purpose for which it was created.
4. By resolution of the competent authority.

Clause 37. In the event of dissolution of this Association, a liquidator shall be appointed to replace the Management Board in its rights and obligations.

Clause 38. It is expressly agreed that future amendments to these Articles of Association may never violate the Operating, Maintenance and Management Instructions approved by the National Water Commission.

INDIA

**GOVERNMENT OF ORISSA
DEPARTMENT OF WATER RESOURCES**

**MODEL
MEMORANDUM OF UNDERSTANDING (MOU)**

**MODEL OF AGREEMENT TO BE EXECUTED
BETWEEN THE WATER USER'S ASSOCIATION
AND THE GOVERNMENT OF ORISSA,
DEPARTMENT OF WATER RESOURCES**

On behalf of the Governor of Orissa, the Executive Engineer _____ Irrigation Division of the Department of Water Resources and on behalf of the _____ Water Users' Association (Registration No. _____) the Chairman of the said Association hereby execute the following agreement at _____ date _____.

As per this agreement, the area of _____ Ha. under the command of the Did/Minor/Subminor _____ of _____ canal of Irrigation Project of the Department of Water Resources is being handed over to above Water Users' Association for the period of agreement for the purpose of Irrigation management. (A copy of the map showing the said command area is attached herewith.) However, the right of ownership on such distributary/minor/subminor inclusive of all structures handed over to the Water Users' Association for irrigation management, the land acquired by the Government for it and also all other works executed, in the said area at Government cost shall remain vested with the Government. For the above purpose, the conditions laid down as under in this agreement area accepted by both the parties. These conditions may be modified if both the parties accord their consent.

OBJECTIVES:

The primary objective of Government in executing this agreement is to promote the participation of the beneficiaries in irrigation management so as to achieve optimum crop production by optimum utilisation of available water. It is necessary in this regard to spell out the activities, rights and responsibilities of the Water Users' Association and the Government to which both the parties will bind themselves for successful implementation. The rules in respect of Water Users' Association and the main objectives will be as under:

- (a) At the time of registration of the Water Users' Association, minimum 51% of the land owners in the command area of the concerned Distributary/Minor/Subminor should have enrolled themselves as members of the Water Users' Association or a minimum 51% of the area of the total command area of the said Distributary/Minor/Subminor should have come within the jurisdiction of the Water Users' Association. Further, the Water Users' Association shall make all endeavour to enroll more and

more land owners of the concerned command area as members so as to cover all of them within a reasonable timeframe.

- (b) The Water Users' Association shall take active part in the joint management phase of the irrigation system until its final turnover to them.
- (c) After turnover of the system, the Water Users' Association shall receive water from the Government in volumetric basis (bulk supply) and shall distribute it amongst the water users whether members or non-members according to their area under crops. It will observe economy and equitability in this regard.
- (d) The Water Users' Association shall collect water rates from the users within its jurisdiction and remit the Government dues on time.
- (e) The Water Users' Association shall maintain and repair the field channels, field drains, minors, subminors distributaries along with structures thereon under its jurisdiction to the best satisfaction of all concerned.
- (f) The Water Users' Association shall impart knowledge of the modern techniques in water management to the members, so that the water is used economically and appropriate methods of water application are adopted.
- (g) The Water Users' Association will establish its own operation and maintenance fund (O&M fund) to meet the operation and maintenance expenditure.

The Water Users' Association will be at liberty to incorporate any other objectives subject to concurrence of Government. For that matter the Water Users' Association will have its own bye-laws for its smooth functioning.

JOINT MANAGEMENT:

Joint management refers to operation and maintenance (O&M) carried out jointly by the Water Users' Association and Government. During this phase, the Water Users' Association will learn how to manage the entire system that would be turned over to it. Joint management phase will begin when (i) the Water Users' Association has been formed and registered, thereby employing that informal outlet committees are in place; (ii) office bearers of the Water Users' Association have been established with relevant bank account. During this phase, the following activities will be undertaken:

- (i) Close collaboration between the Government (Project officials) and the Water Users' Association through information exchange and transfer of skills.
- (ii) Government (Project official) will prepare an operation plan for the entire irrigation system of the project concerned showing the water availability, allocation made for irrigation, drinking water, industrial and other uses. The Project officials will also prepare the method of distributing water to various distributaries, i.e., opening/closing of canal and ON/OFF periods for all the distributaries and for the distributary of the concerned Water Users' Association. The Water Users' Association in turn will prepare the operation plan for the distributary under its jurisdiction. The respective operation plans will be discussed and modified as required.
- (iii) The office bearers of the Water Users' Association, its representatives or staff will accompany the project officials during the operation of the gate and head regulator observing and reading gauges, accounting for water, working out actual duty and depth of water.
- (iv) The Project officials will conduct hydraulic tests of the distributary to check the capacities at different points with the design. Similarly tests for measurements of actual seepage losses will be carried out by the inflow-outflow method. The methodology involved in such tests will be explained by the project officials to the Water Users' Association.
- (v) The Water Users' Association will identify the shortage, if any, in the fall of levels in water supply in the distributary at the outlets and communicate to the project officials for follow up action.
- (vi) An automatic stage level recorder (ALR) will be installed immediately downstream of the head regulator of the distributary for continuous record of water flows. The Water Users' Association will be responsible for the safe custody of the ALR.
- (vii) The distributary will be jointly inspected by the project officials and the Water Users' Association before the season to identify the status of maintenance and to list out items like silt removal and weed clearance needing immediate/regular maintenance. The list will also include items of repairs to earth work, rising of bund and repair to structures. The project officials will prepare an estimate of such works and discuss the list and related funding needs with

the Water Users' Association. The Water Users' Association may suggest items to be added. If these items cannot be accommodated in the Departmental budget provision, then the Water Users' Association may indicate its contributions before estimates are finalised. Contractors can be cash or in kind.

- (viii) During the period of joint management, the Government will reserve the rights to operate the headworks and the main system. Ownership of the system and related works will continue to vest with Government. Normally water supply to the distributary will be in accordance with the distributary operation plan prepared, discussed and agreed to by the Government and the Water Users' Association. However, supplies to the distributary may be increased or reduced in proportion to its share in case of short supply of water in the system. To carry out its responsibility to the Government will deploy necessary field staff. The Government will share with the Water Users' Association relevant data in respect of canal design/actual capabilities and discharge water levels at different outlets, water allocation, design details of APMS where applicable, seepage and operation losses. The Government will also maintain the main canal and branches to ensure designed discharge at the head regulator. It will undertake repairs arising due to natural calamities such as earthquakes, heavy rains or other unforeseen events. During the joint management phase, Government will train the Water Users' Association in irrigation management and will also learn about former perception of water and service needs for agricultural productivity.
- (xi) The Water Users' Association will be responsible for equitable distribution of water among the outlets. In the joint management phase, the Water Users' Association will prepare itself for taking over the O&M responsibilities at the distributary level. To this end, it will collect all relevant data, prepare and implement O&M plans together with the project officials and ensure collection of adequate service charges for maintenance. It will also demonstrate capacity to conduct the affairs of the Water Users' Association in an organised and satisfactory manner with full attention to records and accounts.
- (x) After satisfactory completion of the joint management phase (normally 3 to 6 months), the turnover will commence.

TURN OVER:

The following procedure will be followed in handing over of the irrigation system to the Water Users' Association and taking over of the same by the Water Users' Association.

- (i) The project officials will prepare an inventory of the works showing lengths of lined and unlined sections, structures, crossings, sluices, outlets and lands acquired for the above.
- (ii) The works will be jointly inspected by the project officials and Water Users' Association to identify deficiencies, omissions, substandard or incomplete works, if any.
- (iii) On completion of repair works required, if any, the project officials will organise hydraulic testing of the distributary to ensure that the designed discharge can pass to the tail outlet. They will prepare a statement showing the capacity of the distributary at different sluices offtakes and the designed and actual water depths.
- (iv) The Project officials will also prepare completion records of all the works, the land plans, gauge discharge curves and a map showing the command of the distributary and of the sluice/tank in the command.
- (v) Finally, the project officials will hand over the system management along with the documents maintained above to the Water Users' Association. In token of handing over and taking over, the project official authorised for the purpose and the Water Users' Association will sign the agreement.

RIGHTS AND RESPONSIBILITIES:

A. Government (Project officials):

- (a) It will operate the head regulator of the distributary.
- (b) It may suggest improvements, if any, for O&M below the distributary which is turned over to the Water Users' Association.
- (c) It will ensure supply of full quota of water to the Water Users' Association at Distributary/Minor/Subminor head on volumetric basis as agreed upon. For that matter, different quantity of water may be fixed for Khariff, Rabi and Hot weather irrigation. This fixation may be made after assessing the crop requirement clearly.

However, if in any year water available in the reservoir/barrage pond of the project concerned is less, then as per the Government policy, quantum of water so fixed may be proportionately curtailed. Intimation in this regard will be given to the Water Users' Association the beginning of each season. Intimation regarding irrigation schedule, rotation programme, etc. will also be intimated well before their commencement.

- (d) It will inspect the position of water supplies, irrigation works in the command, distributary and field levels structures under the jurisdiction of the Water Users' Association to verify whether or not the agreement is implemented satisfactorily.
- (e) It is the discretion of Government to sanction or reject extra demand for water if any from the Water Users' Association. This is dependent upon availability of water in the reservoir/barrage/anicut pond.
- (f) Water will be supplied to the Water Users' Association only for the irrigation purpose. Water, if required by the Water Users' Association for any other purpose, will be obtained by specific orders in that regard.
- (g) The rates of water supplied on volumetric basis for irrigation (Khariff, Rabi and Hot weather) and for other purposes and any other fees/cess, etc. chargeable, will be fixed by the Government from time to time and the WUA will abide by that. Government has also got the right to review the water rates, cess, etc. at such intervals as it deems proper.
- (h) Percolation water within the command area of the Water Users' Association will be assessed to water rate too like normal irrigation water.
- (i) The rights of ownership of the distributary including all structures, land acquired by Government and all other works executed in Water Users' Association area will remain with the Government.

B. Water Users' Association (WUA)

- (i) The Water Users' Association will assume full responsibility for operation and maintenance of the distributary/minor/subminor and all structures turned over to it. It will also ensure construction/maintenance and repair of all the water courses, field channels, field drains within the jurisdiction of the Water Users'

Association. Before formal turn over is made it will be ensured that the above system is made fully operational. The following items of work are included in maintenance work.

- (a) Removal of silt from distributary/minor/subminor/water courses/field channels and field drains and proper upkeep of the same.
 - (b) Maintenance of inspection path and service roads in good condition.
 - (c) Removal of grass, shrubs and bushes from the canal embankments, canal beds, etc.
 - (d) Maintenance of the structures in good condition.
 - (e) Maintenance of head regulators, cross regulators, outlets gates, etc. in good condition.
 - (f) Earth work to restore banks.
 - (g) Repairs to lining, pointing, plastering, replacing damaged portions, repairs to masonry and other structures, etc.
-
- (ii) It will protect the entire system within its jurisdiction from any damage whatsoever
 - (iii) It will undertake/suggest measures for improved water management at the level of distributary.
 - (iv) It will organise better and improve water management methods at the form level. The Water Users' Association will have full right for internal distribution of water.
 - (v) It may ask for and obtain from the Government information on planned operation and maintenance activities in the entire system including at the concerned distributary.
 - (vi) It may obtain permission to utilize the land acquired by the Government but not being utilized for any fruitful purposes. However, due care will be taken to protect environment and damage to the system.

- (vii) It will notify the project authorities promptly if there is any damage due to unforeseen natural calamities like earthquake, heavy rains, etc.
- (viii) It will collect water rates from the members/non-members of the Water Users' Association as per the rate prescribed by the Association, for eventual deposit with Government within the dateline prescribed by Government.

MISCELLANEOUS:

- (i) In case of negligence by the Water Users' Association in maintenance of the system (excluding the water courses, field channels and field drains, whose construction and maintenance is the sole responsibility of the farmers) turned over to it, the Government will have the right to stop the supply of water within 15 days' notice or to carry out the repair work on behalf of the Water Users' Association and to recover its cost from the Water Users' Association.

Note: In case of repeated negligence and when the WUA fails to take corrective action within a specified period to being in improvement in the system, Government may decide to take back the management and maintenance responsibilities from the WUA.

- (ii) In the event of violation of any of the provisions contained in the agreement with regard to water management also, Government may take similar action as in (i) above.
- (iii) The concerned irrigation office (Executive Engineers/Assistant Engineers or their authorised representative) shall have the right to inspect the position of water supply to the Water Users' Association and to inspect the area under its jurisdiction and to verify whether the agreement entered into by the Water Users' Association with the Government is being implemented properly or otherwise. The Water Users' Association will be duty bound to comply with the observations made by the Government officials in course of visit/inspection.
- (iv) With a view to achieving the optimum utilisation of available water, check on unauthorised irrigation, extension of irrigation to as much area as possible, Government may also make provision for allowing the following concessions to the water users' associations.

- (a) Benefits of special schemes, if any, floated by Government.
- (b) Discount/concessions in water rate. This may be in form of financial assistance to the extent of a certain percentage as would be fixed by Government (may be 20% of the water rates) and will be given as outright grant from the water rates collected.
- (c) Over and above this provision as in (b) above, the Water Users' Association may be given rebate on the amount of water bill (say up to 5%), if payment is made before the dates prescribed for different irrigation seasons. On the other hand, if the amount of the bill is not paid within the due dates, surcharge (say 10% on the bill amount) or interest for default as prescribed by Government may be paid by the Water Users' Association.
- (v) Without prejudice to the provisions of Orissa Irrigation Act and Rules made thereunder, the Government will have the right to stop the water supply if Water Users' Association does not pay the water rates within stipulated/extended time limit. Supply will be resumed on clearance of all arrears due.
- (vi) All disputes in respect of various provisions made under this agreement will be resolved by a Committee comprising one nominee from the Apex Committee and the Superintending Engineer concerned. In case of difficulty in resolving it, matter will be referred to concerned C.E./ and Government in appropriate Department.

This agreement will remain in force for a period of _____ years with effect from the date of signing the agreement. Further continuation or otherwise will be decided with the consent of both the parties.

Chairman.
Executive Engineer.
Water Users' Association.
Irrigation Division.

MEXICO

NATIONAL WATER COMMISSION

INSTRUMENT AWARDING CONCESSION

**FARMER-USERS ASSOCIATION, IRRIGATION UNIT K-95,
UPPER MAIN CANAL, IRRIGATION DISTRICT NO. 041,
RIO YAQUI, A.C.**

STATE OF SONORA

INSTRUMENT AWARDING WATER CONCESSION AND PERMIT TO USE IRRIGATION INFRASTRUCTURE IN IRRIGATION

DISTRICT NO. 041, RIO YAQUI, SONORA

Concession granted by the Federal Executive Branch through the National Water Commission, a deconcentrated administrative organ of the Secretariat of Agriculture and Hydraulic Resources, represented by its Director General, Fernando J. Gonzalez Villareal, to "FARMER-USERS ASSOCIATION, IRRIGATION UNIT K-95, UPPER MAIN CANAL, IRRIGATION DISTRICT NO. 041, RIO YAQUI, A.C.," for the use of national water resources for the supply of water for irrigation purposes in the District concerned, pursuant to Article 35, XXIV and XXV of the Organic Law of the Federal Public Administration; Articles 5, 6, and 17, IV and VI, and Articles 22, 59, 60, 61, 73 and others relative to the Federal Water Act; Articles 29, 30 and 31 of the Internal Regulations of the Secretariat of Agriculture and Hydraulic Resources, in addition to a permit to use irrigation infrastructure, pursuant to Articles 73, 131, 148, 155, 156, 157 and others relative to and consistent with the Federal Water Act, based on the following:

DECLARATIONS

1. The National Water Commission, a deconcentrated administrative organ of the Secretariat of Agriculture and Hydraulic Resources, created by Presidential Decree published in the official Gazette of the Federation on January 16, 1989, hereinafter called "the Commission," hereby grants a concession for the use of water for irrigation purposes, as well as a permit for the use of irrigation infrastructure, to the Rural Development Irrigation Module or Unit "FARMER-USERS ASSOCIATION, IRRIGATION UNIT K-95, UPPER MAIN CANAL, IRRIGATION DISTRICT NO. 041, RIO YAQUI, A.C.," forming part of the above-mentioned Irrigation District, hereinafter called "the Concession Holder."
2. The location of the irrigation infrastructure forming the subject of the permit, the stream supplying it and the intake works through which the Concession Holder's water allocation will be delivered are shown in the general plan of the irrigation district and Module (Annex No. 1). The inventory of infrastructure is given in Annex No. 2, and these documents, as well as all other annexes, are deemed to form an integral part of the present Instrument.

3. The module referred to in the foregoing Declarations is recognized by the Secretariat of Agriculture and Hydraulic Resources as a Rural Development Irrigation Unit pursuant to Article 73 of the Federal Water Act, retaining its status as part of the infrastructure of the Irrigation District, to provide rural communities with irrigation services, the corresponding water concession being granted as provided by law.
4. The Concession Holder's user register, which forms part of the District's user register, is given in Annex No. 3, and contains the name of the user and the irrigation area presently registered.
5. The Concession Holder has given proof to the Commission of its status of juridical person, with the requisite competence and technical and economic capacity to hold this concession and permit, having given evidence that it was created and constituted for the purpose of operating, maintaining and managing the above-mentioned module, submitting Articles of establishment of a Civil Association, which also form part of this Instrument as Annex No. 4.
6. The Concession Holder is of Mexican nationality, having been established under the laws of the United Mexican States.
7. The domicile of the Concession Holder is at Mayojustalit, Block 1728, Municipio de Etchojoa, Sonora, Mexico.

CONDITIONS

1. The purpose of the present Concession is to authorize the use of national water resources for purposes of irrigation of the Concession Holder to use national water resources to supply water for irrigation in the above-mentioned Module, prior to bulk water delivery of water by the Commission.
2. The purpose of the present Concession is to authorize the Commission, through its decentralized administration, to use the infrastructure comprising the Module, including the secondary canal network, the internal drainage network, the respective roads and other installations, and the available machinery and equipment specified by the Commission, to supply irrigation service to users of the Module, said infrastructure to be delivered, through issue of a detailed instrument, within 60 days following signature of the present Instrument. The headworks shall be operated, maintained and managed by the Commission at the users' expense.
3. The Concession Holder agrees that it will, together with the other Concession Holders in the District, set up a limited liability company

[Sociedad de Responsabilidad Limitada de Interes Publico y Capital Variable] conforming to a permit and model Articles of Association to be provided by the Commission, hereinafter called “the Company,” to provide them with the services of operation, maintenance and management of the major canal network, drainage network, their respective roads, the other additional infrastructure covered by the permit, and the machinery and equipment available to the Commission, and also to represent them.

The Commission shall remain the authority in the decentralized Irrigation District pursuant to the law and the present Instrument, in which capacity it shall at all times ensure that the Concession Holder complies with the law, with the provisions of this Instrument, and with the Operating, Maintenance and Management instructions attached hereto as Annex No. 5.

4. The irrigation service fee to be paid by the users shall be set in accordance with the Operation, Maintenance and Management Instructions (Annex No. 5) and shall be divided into three parts:
 - (a) The part payable to the Concession Holder, which shall be sufficient to cover all costs of operation, maintenance and management of the Module, and which shall be proposed by the Concession Holder to the Commission through the Company, to be studied by both bodies and authorized by the Commission.
 - (b) The part payable to the Company for its services, which shall be sufficient to cover the proportionate share of the operating, maintenance and management costs mentioned in Condition 3, and which shall also be proposed by the Concession Holder to the Commission through the Company, to be studied by both bodies and authorized by the Commission.
 - (c) The part payable to the Commission to cover the normal costs of operation, maintenance and management of the headworks for bulk water supply, of irrigation and drainage engineering activities, and of supervision, in compliance with current legislation. The Company shall participate in the task of setting the above-mentioned costs.
5. The irrigation service fee shall be adjusted periodically, in conformity with the procedure set forth in the Operation, Maintenance and Management Instructions (Annex No. 5).

6. Charges for the use of the secondary network regarding which a permit is issued under the present Instrument may not be transferred or assigned to third parties.
7. This Concession and Permit are granted for 20 years from the date of issue, which period may be extended.
8. The Commission shall have the following functions and obligations:
 - I. Determine and publicize at the beginning of each agricultural cycle the volume of water available for formulations of the District irrigation plan, thus enabling the Concession Holder to formulate its own irrigation plan, based on the volume allocated to it under the Operating, Maintenance and Management Instructions, and submit this plan through the Company to the Commission for authorization.
 - II. Deliver water in bulk through the Company to the Concession Holder to be piped to the control point(s) set up, and ensure that this piping and distribution of water by the Company is performed efficiently so that each Concession Holder receives its allocated volume at the appropriate time.
 - III. Ensure that water distribution by the Concession Holder to the interior of the Module takes place efficiently, so that users receive their allocated volumes at the appropriate time; enforce application of the regulations governing use of water for irrigation purposes, depending on the quality of the water and on the type and destination of the crops concerned.
 - IV. Authorize the Concession Holder through the Company, during a given agricultural cycle, to use all or part of the water on lands different from those specified in the Concession, within the limits of the District.
 - V. Together with the Concession Holders and the Company, draw up, revise and amend the Operating, Maintenance and Management Instructions.
 - VI. Establish the user register and keep it permanently up to date, based on documentation and information that the users are required to supply directly, the Concession Holder keeping informed through the Company.

- VII. Notify the Concession Holder through the Company of the essential hydrometric data and production statistics requirements mentioned in the Operating, Maintenance and Management Instructions (Annex No. 5) at specified regular intervals.
- VIII. Observe and record:
- (A) As an ongoing practice, water quality, at all sources of supply, irrigation canals, drains and groundwater, with a view to preventing and/or correcting, in coordination and as a joint effort with the Concession Holder and the Company, any problems of contamination causing deterioration in the ecosystem.
 - (B) As an ongoing and systematic practice: the physical, chemical and biological conditions of the irrigated soils, to identify factors causing soil degradation and propose the appropriate preventive and corrective measures.
 - (C) Periodically: variations in groundwater levels, proposing a series of prioritized actions to correct negative impact on the soil and crops.
- XI. Provide the Concession Holder with available machinery and equipment (Annex No. 2) to carry out maintenance programs, in accordance with the delivery specifications set forth in the Operating, Maintenance and Management Instructions (Annex No. 5)
- X. Approve the Concession Holder's annual irrigation infrastructure maintenance programs, which shall first be compiled by the Company for authorization by the Commission.
- XI. Ensure that maintenance programs are carried out as approved in the interest of all Module users, and take appropriate action in the event that satisfactory operation of the system is jeopardized by deviations from the program.
- XII. Provide technical advice as requested by the Concession Holders in connection with preparation of the annual maintenance programs for the infrastructure forming the subject of the permit, machinery maintenance and repair, and compilation of the unit prices of the corresponding works.

- XIII. Disseminate knowledge in the areas of irrigation technology and productivity, salinity and drainage, land-use planning, and laboratory techniques for water, soil and plant analysis, and on all other aspects deemed relevant.
 - XIV. Provide support to the Concession Holder and, as the case may be, the Company, in connection with their training programs, with a view to developing and enhancing their technical and administrative capacities.
 - XV. Notify the Concession Holder through the Company of the reporting requirements relative to the maintenance programs for the infrastructure forming the subject of this permit, as provided in the Operating, Maintenance and Management Instructions.
 - XVI. Authorize the irrigation service fee, broken down as specified in Condition 4.
 - XVII. Collect from the Concession Holder the share of the irrigation service fee for bulk water supply and, in the event of nonpayment, suspend supply as provided by law.
 - XVIII. Organize and carry out, with the participation of the Concession Holder and the Company, all works of infrastructure protection and/or repair deemed necessary in the event of an emergency.
 - XIX. Handle all complaints and suggestions submitted by the Concession Holder's user members concerning deficiencies in operation, maintenance or management of the Module, the Company, or the District.
9. The Concession Holder shall have the following functions and obligations:
- I. Manage the assets for which a concession and permit have been granted in the respective Module, pursuant to the law, under the present Instrument of Concession and Permit and the Operating, Maintenance and Management Instructions, operating through the organizational structure shown in said Instructions.
 - II. Prepare the irrigation plan along the lines set forth in Condition VIII, paragraph I.
 - III. Receive water in bulk through the Company at its control point(s) and distribute it among the users of the Module in the appropriate volume, using metering structures to be installed by the users on

their intake structures, supervised by the Concession Holder, all necessary technical assistance being furnished by the Company and the Commission.

- IV. Provide users with an efficient irrigation service, delivering water in accordance with the programmed demand, in the volume and at the time required.
- V. Ensure that users make efficient use of the water delivered to them as provided in paragraph IV above, and apply all appropriate corrective measures whenever losses are detected. Such occurrences shall be reported to the Commission and the Company.
- VI. Furnish hydrometric and statistical information to the Commission through the Company, using the forms supplied to it for the purpose.
- VII. Prepare annual maintenance programs for the infrastructure for which the permit has been granted, to keep it in good condition, and, if appropriate, prepare programs for the maintenance and repair of the machinery and equipment for which it is responsible, both programs being submitted by the Company to the Commission for its approval, for subsequent implementation by the Concession Holder.
- VIII. Use the machinery and equipment provided by the Commission solely and exclusively for the performance of maintenance works on the infrastructure for which this permit has been granted, in accordance with the approved program, except for the provisions of Condition XVIII below.
- IX. Together with the Company and the Commission, negotiate with the users the installation of groundwater observation wells within the limits of the Module, ensuring free access by Commission employees to those wells.
- X. With the Company and the Commission, negotiate with the users the procedures for enabling Commission employees to take samplings of canal water, groundwater, and water from drains within the Module, ensuring adherence to the supervisory measures established by the Commission to avoid or correct environmental deterioration.

- XI. Supervise the use of irrigation water in each plot, in terms of volume and timing, so as to upgrade the production and productivity of the crops concerned.
- XII. Propose to the Commission, through the Company, the proportion of the irrigation service fee to be allocated to the Concession Holder and to the Company, as provided in Condition IV.
- XIII. Charge users an irrigation service fee, and in the event of non-payment, suspend service as provided in Article 80 of the Federal Water Act.
- XIV. Manage the amounts collection for irrigation service, the Commission receiving payment for bulk water supply. Should a surplus remain after the costs of operation, maintenance and management of the Concession Holder and the Company has been met, such surplus shall be used systematically for infrastructure improvement, for machinery and equipment, and for purchases benefiting the general operation and development of the Module, subject to approval by the Concession Holder's Assembly.
- XV. Carry out works, purchase and/or rent machinery and equipment for the improvement, expansion and/or modernization of infrastructure in the Module, subject to prior approval by the Concession Holder's Assembly, establishing for this purpose any additional specific fees that may be required. The performance of works altering and/or expanding the infrastructure forming the subject of this permit shall require authorization by the Commission.
- XVI. Refrain from pledging the present or future proceeds of fees paid for the irrigation service as a guarantee or collateral for the performance of obligations entered into by the Concession Holder.
- XVII. Keep accounts of its budget execution and submit annually to the Concession Holder's Assembly, to the Company, and to the Commission financial statements examined by a certified public accountant and facilitate such audits as the Commission shall determine.
- XVIII. In emergency situations, entrust to the Commission all available personnel, machinery and equipment, with a view to executing any defensive works or repairs that may be urgently needed to safeguard the infrastructure, as well as communities and human lives.

- XIX. Ensure that officers are appointed from different sectors on a rotating basis to the Management Board, and take steps to confirm their integrity. Provision shall be made to this effect in the Concession Holder's Articles of Association.
 - XX. Put before the Commission all complaints and suggestions raised by users of the Module regarding services provided by the Commission, the Company, and/or the Concession Holder with respect to the operation, maintenance and management of the Module and of the District.
 - XXI. Hire full-time trained workers, at its own expense, such workers having no labor relations with the Commission.
 - XXII. At its own expense, pay compensation to its workers and to users and third parties, and to the Federal Government, in respect of actions or any other event related to the use of the goods forming the subject of this concession and permit.
 - XXIII. All other functions and obligations provided for in the legislation, in the present Instrument, and in the Operating, Maintenance and Management Instructions for the Module.
10. The Concession Holders shall be subject to administrative or civil penalties and/or punitive measures, pursuant to the law, in the event that it:
- I. Puts the water to a use different from the one for which the concession was granted.
 - II. Uses the proceeds of irrigation service fees received from the users for purposes different from those specified in the present Instrument.
 - III. Uses the machinery, equipment or installations provided by the Commission for purposes other than those specified in this Instrument.
11. This concession and permit may be revoked should the Concession Holder repeatedly, and without heeding the Commission's recommendations:
- I. Alter the manner of using the water and infrastructure without the Commission's authorization.
 - II. Fail to provide the Commission with the information and documentation required of it pursuant to the present Instrument.

- III. Fail to maintain in good condition the irrigation infrastructure forming the subject of this permit and the machinery and equipment furnished to it by the Commission.
 - IV. Fail to make timely payment to the Commission of the charge for bulk water supply, and fail to make payment for the services provided by the Company.
 - V. Fail to discharge the obligations stipulated in the present Instrument in the case of an emergency.
 - VI. Amend its Articles of Association with authorization from the Commission.
 - VII. Fail to comply with any of the obligations set forth in this Instrument and/or in the Operating, Maintenance and Management Instructions.
 - VIII. Engage in any of the actions mentioned in Article 118 of the Federal Water Act.
12. The following shall give cause for cancellation of the present Instrument of Concession and Permit: expiration of its period of validity, disappearance of the grounds for its existence, and the acts and omissions mentioned in Clause 11 of this Instrument.
13. Revocation or cancellation of the concession granted shall give rise to termination of the respective permit.

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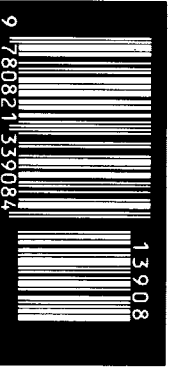
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