

AN ALTERNATIVE TO THE GOVERNANCE OF WATER SERVICES IN MEXICO: THE MODEL OF THE NEW WATER CULTURE

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Abstract

The conventional image of governance is yielding to novel ways of exercising power. Initially The New Public Management (NPM) was promoted as the best alternative to the conventional model to increase the efficiency in the delivery of services; but the NPM is confronted with the idea that public action should favor the interaction between actors rather than the material aspects of the management. This concept is at the root of governance, which encourages good relations between public, private and social, promising to be the best way to resolve matters in democracies. In water management, several experiments suggest that the use of a "tripartite" model guarantees resource governance by allowing the participation of public, private and social sectors. The model of the New Water Culture (NWC) is an option that departs from the conventional approach (which focuses on the demand side of the problem and promotes solutions through public works) and public-private-partnership (PPP) models (which considers the social sector only as a "client") to create a tripartite model of administration with public-private-social participation. Although Mexico has no experience of the NWC, there is a basis for implementation. In order to implement it in Mexico there is a need to develop new institutional conditions, to create innovative figures such as neighborhood committees for water management to oversee the quality of services and define together with the administrative authority the way the private sector associates with the public operator in order to improve the quality of the service.

Key Words: New Public Management, New Water Culture, Public-Private-Partnership, Mexico, Water Management

Özet

MEKSİKA'DA SU ALT YAPI HİZMETLERİNİN YÖNETİMİ: YENİ SU KÜLTÜRÜ MODELİ

Yönetimde geleneksel anlayış, kendisini gücün yeni yollardan kullanımına bırakmaktadır. İlk olarak Yeni Kamu Yönetimi (YKY) modeli, hizmet sunumunda verimliliği artırmak için geleneksel modele en iyi alternatif olarak desteklenmiştir; ama YKY, kamu eylemlerinin maddi varlıklardan ziyade aktörler arasındaki ilişkilere ayrıcalık tanınması gerektiği fikri ile karşı karşıya kalmıştır. Bu model, demokrasilerde sorunları çözmek için en iyi yol olan toplum, özel sektör ve kamu arasındaki iyi ilişkileri cesaretlendiren yönetişimin temelinde yer almaktadır. Suyun yönetiminde, birçok deneyim, kamu, özel sektör ve toplumun katılımına izin veren ve kaynakların yönetimini garanti eden bir model olarak üçlü yönetim modelinin kullanımını önermektedir. Geleneksel model (problemin talep tarafına odaklanan ve kamu işleri ile çözüm geliştiren model) ve Kamu-Özel Ortaklığı modellerinden (sosyal sektörü sadece müşteri olarak değerlendiren model) kamu, özel sektör ve toplumsal katılım ile üçlü yönetim modeli oluşturmak için ayrılan Yeni Su Kültürü (YSK) modeli de bir seçenektir. Meksika'nın YSK konusunda hiç bir deneyimi olmamasına rağmen uygulaması için bir temeli mevcuttur. Meksika'da bunu uygulayabilmek için, yeni kurumsal koşulların geliştirilmesine, su kaynaklarının yönetiminde servis kalitesini denetleyecek komşuluk ilişkileri komitesi gibi yaratıcı figürlerin oluşturulmasına ve hizmet kalitesini arttırmak için özel sektörün kamu işletmecisi ile nasıl işbirliği yapabileceğinin idari otorite ile tanımlanmasına ihtiyaç vardır.

Anahtar Kelimeler: Yeni Kamu Yönetimi, Yeni Su Kültürü, Kamu-Özel Ortaklığı, Meksika, Su Yönetimi

1. Introduction

The traditional system of governance that demands the State to provide individual attention and solution of public affairs has generally resulted in unsatisfactory results. The search for alternative modes of governance was the subject of discussion since late last century, resulting in the New Public Management (NPM) with the essential goal of providing an efficient service delivery. But the NPM was soon challenged with the argument that public work should be governed primarily by the quality of the relationship between actors rather than material goals. This contrasting approach is the source of governance, a superior proposal of governance that seeks the good relationship between public, private and civil society. Since the late nineteenth century water resources have been a concern in many regions of the world as it approaches levels of scarcity. It was argued the alleged inability of the state for providing efficient service, so the recurrent suggestion was that the conventional model of management where the state is a major player gives way to a design in which the participation of private enterprise is favored. The suggestion of this model "bipartisan"

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is part of the idea of the NPM; arrangements between government and private sector to provide infrastructure and public services complementing strength and unique individual characteristics of each other.

Practices of public-private management of water in the world have allowed us to recognize successes but also failures. Most experiences in developing countries resulted in a failure of the bipartite model, but of those failures an alternative approach to management development was born characterized by the participation of three sectors: public, private and social. This model "tripartite" recognized under the name of New Water Culture (NWC), was accepted by most international funding agencies.

The experiences show that the governance of water demands social participation, access to information, consensus and monitoring of service delivery. The NWC claims the importance of including the social sector in the decision-making and implementation of infrastructure projects of water governance, from the governance point of view, the interaction of actors allows a successful treatment of problems.

Currently, Mexico is making efforts to solve the problems of water governance, due to the growth and creation of new urban developments in various regions of the country, however, there is still lagging behind in the implementation of the NWC design.

2. Conventional and Alternative Practices in Public Affairs

2.1. From Centralized Management to the Public-Private Model

The changes in governance that have occurred since the last decades of last century have marked a turning point between a traditional system and other modes of exercise of power. As noted by Kjær (2004, s.19-21), the traditional or Weber model, based on principles of hierarchy (political authority is based on a sovereign populace with a power that is exercised indirectly through plural representation), neutrality (resource management, economic and public affairs have nothing to do with private interests) and public service career (officers are career bureaucrats chosen for their skills), faced challenges that motivated the search for alternative ways of managing public affairs. A first challenge was an overload of responsibilities. If initially the State acted as regulator, concerned to preserve the order and provide basic infrastructure, soon extended its delivery of services (education, health, employment, etc.) leading to increase public spending and taxes. And although the new tasks were considered adequate, the State was criticized for be structured in a "stiff" and hierarchical (Pierre and Peters 2000: 5), being unable to respond quickly and efficiently the demands of "customers" (Kjær, 2004, s. 22).

This generated a crisis of legitimacy, because it was difficult to respect a government that fails in its responsibility to provide welfare; it also revealed a government with an inadequate plan, inevitably requiring external economic support (Donolo, 1999, s. 23-40; Pierre and Peters, 2000, s.9, 61-62; Vallespín, 2000, s.123-126). In this regard, the organized interests of the private sector were strengthened to the same extent that the public sector pale. Thus arose the so-called crisis of governance in the seventies (Crozier *et al.*, 1975, s.9-12; Habermas, 1999, s. 21-27; Pierre and Peters, 2000, s.51). A second challenge, related with the government overload, was the failure of pluralistic representation, which meant that the vested interests in policy decisions were those of powerful organizations, earning them access to the state administration and a presence in various public committees, while the interests of the majority were relegated. The weight of these organizations led to formal rules that arise in negotiations and consultations, institutionalizing the links between those interests and decision-making structures of the state in the so-called corporate governance (Kjær, 2004, s. 22-23).

The shortcomings of the bureaucratic model detonated the proposed administrative reform, the New Public Management, or NPM, in the eighties and nineties, with different nuances that persists until present days, with the purpose of removing obstacles to efficient service delivery. Such initiative proposes: 1) Deliberate change in bureaucracy, 2) Innovation, 3) Improving the efficiency and effectiveness of services, and 4) Prevent the uncertainty of rapid change in organizations. The path to reform is the transfer of private sector principles to the public, as well as privatization, competition, creation of *ad hoc* agencies, decentralization, and empowerment of citizens.

It can be argued that the success of the NPM depends on the application of the full recipe and that such a model contributes to the bureaucracy to do their job optimally. But clearly not all the ingredients of public-private design have been included in the attempted reforms in different countries, so the results are mixed; failed experiences are maximized when organized interests are combined with a weak public administration. Moreover, it is questionable the intent of the managing some resources that are considered basic beyond the sphere of the

State thus allowing the incursion of the private sector; mainly in countries where the instrumental (legal and organizational) and human (policy) infrastructure has a centralized bias. The idea of citizen political empowerment, for example, which assumes that lower-level public officials who frequently have wide scope to exercise authority should be responsible for their performance to their customers and users (the local population) resulting in an improvement to the quality of services (Kjær, 2004, s. 24-30), is not easily accepted in centralized models of administration.

2.2. Network Governance: Towards a Plural Model

The NPM was applied in both developed and developing countries. Paradoxically, says Kjær, “those who have launched the most comprehensive reforms have often been the countries with the least capacity to perform the changes, [but they do it] because they have very little leverage with which to resist the demands of their donors” (Kjær, 2004, s. 31). In the Europe of the mid-nineties that model of administration was questioned with arguments like that “the effectiveness and legitimacy of public action are based on the quality of interaction between different levels of government and between them and business organizations and civil society” (Prats, 2005, s.130). Prats certainly goes further by introducing a new qualitative variable, the quality of interaction between the actors, that was not present on the theory of public administration focused on standards, performance measures, results, and money (Kjær, 2004, s.25; Natera, 2005, s. 802). In that sense, reform of structures and procedures should follow a rationale of contribution to the interaction and the focus of analysis would have to pass to the relationship between levels of public organizations and between them and the private and civil society, without forgetting the citizen as a reference for public action. However, it should be asked if the responsibility of policy-making and decision making has to reside only in the government and its bureaucracy along with business interests, since the role of other stakeholders in public affairs is increasingly relevant.

The directive to “minimize the State” immersed in the NPM as well as reflection on the quality of the relationship between actors have been grounds for the evolution of the concepts of networks governance. Constant reconfiguration of public service has impacted on the performance of government; on the one hand, it has weakened the central government's ability to direct society. Saward (in Kjær, 2004, s.32) notes that the center is pierced because the core executive granted capabilities to the social sector, other state actors, and supranational entities. But the alleged weakening of the State is necessary and the reforms challenge their ability to reconfigure and be flexible in the face of the complexity of the issues concerned, and the governments must react to the changing political, economic and social scenes. The alternative seems to be a mix between centrality and plurality, that is, the requirement of a strong state must be added a policy for relations between interdependent actors, or networks (Kickert *et al.*, in Kjær 2004, s. 35), to ensure another view of affairs. On the other hand, the reforms have impacted the governance at the local level, with a transition which in itself sums up the matter: a movement of local government to community governance involving a complexity of private sector and public organizations (Rhodes, 1996, s. 658). This confirms the importance of a network policy that addresses public issues in different ways and contributes to the quality of the interaction.

The change of focus, which moves from structure-function to the interaction of actors, is the source of governance; in fact, governance seeks the contribution to the good relationship between public actors, and among them and the private and civil society, while taking into account two basic aspects: the citizen and the context of the problems (Santes-Alvarez, 2009, s. 46). Prats (2005, s.131) notes that the interaction requires “extraordinary dose of strategic vision, conflict management and consensus building” that is, a politically responsible State vision. Meanwhile, in the configuration of networks there is a vertical dimension with overlapping structures revealing the ubiquitous hierarchy, which means that the networks and hierarchy coexist, and in this configuration the State must have a higher status and take the challenge to carry the network on the right path (cf. Kjær, 2004, s.44; Pierre and Peters, 2000, s.3-4). The system of governance that is generated (network governance) needs to solve a key challenge: organizing “a deliberative public space based on procedural rules that feed back the confidence in the structure of interdependence” (Prats, 2005, s.132). In addition, the issue of co-responsibility is yet to be faced. In fact, co-responsibility, understood as “the recognition and acceptance of the parties, formal or informal, of the consequences of their actions or omissions, as well as of the differential weight with respect to shared goals,” is essential to governance; it is “the fee that should cover those who have voice, vote, and are made, modified or prevented their interests” (Santes-Alvarez, 2009, s.30-45). Undoubtedly, shared responsibility (public, private and social) that proposes a plural model of governance networks will make sense if it leads the plurality of interests to better governance.

3. Water Governance: Issues and Solutions

3.1. Global Issues

In the decade of the seventies the issues of economic growth and the distribution of profits were discussed by the development agencies. It was said that to promote growth and equity, it was necessary to modify conventional standards, and in poor countries to increase productivity and improve access to basic public services like water supply and sanitation (World Bank, 1980). Since then, water resources have become increasingly important, especially as demand-availability ratio is at levels of scarcity in many regions (El Colegio de Mexico, 2003) of the world. The inclusion of water issues on the international agenda is corroborated by the series of events that have occurred over time (Table 1). In this journey, large sectors of the society have become aware of the dimension of water as an essential element for life and development processes, as well as the consequences of unsustainable forms of water resources management as in many urban and tourist projects.

Table 1. / Tablo 1 : Water in the International Agenda / Uluslararası Su Gündemi	
Relevant Meetings:	
<ul style="list-style-type: none"> • Mar del Plata Conference (1977) • Declaration of the International Decade for Water Supply and Sanitation (1981-1991) • Global Consultation on Safe Water and Sanitation for the Nineties (New Delhi 1990) • Conference on Water and Environment (Dublin 1992) • Conference on Environment and Development (Rio 1992): Chapters 18 and 21 of Agenda XXI provide special attention to water management • United Nations declaration of the International Decade for Action 'Water for Life' 2005-2015 	
Influential Organizations:	
<ul style="list-style-type: none"> • Water, Sanitation and Health Program, World Health Organization (WHO 1997) • IMF: International Monetary Fund • World Bank: Financial support for development 	

Source: Authors

Changing patterns of growth and equity was part of the alleged inability of the state as a provider of services resulting in a "crisis" of governance (Crozier et al., 1975). The alternative to the conventional centralized model of management was to allow private sector participation. For water resource management, the initiative promoted was the "public private partnership (ppp)" or "bipartite model" ; the model dictates arrangements between government and private entities to provide public infrastructure and related services. This is a model of joint investments, risks and responsibilities in areas such as finance, design, construction, operation and maintenance of public infrastructure and services. The argument is that a successful partnership would combine the strengths of both sectors to establish complementary relationships. The underlying logic is that both public and private sectors have unique characteristics that provide specific advantages for projects or provide services efficiently.

According to the Canadian Ministry of Municipal Affairs, the public-private partnerships although an alternative to creating new infrastructure and related services, they "are not a substitute for a strong and effective governance by the government [... which] remains responsible for generating projects and services so as to protect and promote public interests" (CMAA, 1999, s.5). As shown in Table 2, the results of the implementation of mixed public-private model of water in urban areas have been mixed.

Table 2. / Tablo 2 : Experiences with the Bipartite Model in the World / Dünyada İkili Model Deneyimleri	
Place	Outcome
USA: Atlanta, Seattle, Keystone (S. Dakota), Veolia y Tampa Bay (Florida); Indianápolis; El Paso; Burlingame (California).	<u>SUCCESS.</u>
Africa: Senegal, Ghana y Lesoto.	<u>FAILURE.</u> Due to inadequate planning. The different schemes negatively impact the poorest segments of the population by reducing their access to safe drinking water due to high tariffs.
Latin America: Argentina and Bolivia.	<u>FAILURE</u> (nineties). Forced privatization of large scale utilities promoted by the World Bank
Brasil, Chile, Costa Rica, El Salvador, Nicaragua, Perú, Uruguay, Argentina y Bolivia.	<u>NO EVALUATION YET</u> (recent experiences). Strengths and weaknesses of the model are yet to be evaluated.

Source: Finnegan 2002; Barkin 2004; Ogunbiyi 2004: 1; UNESCO 2005; Ouyahia 2006, IDRC, 2007; NCPPP 2007.

These experiences allow to recognize mistakes and successes, and propose an alternative approach to management that emphasizes three key aspects of water: 1) It is essential for development and social welfare (World Bank, 1980, s.2) It is necessary to analyze both its supply and its treatment as wastewater, because both conditions are inseparable (Gunnerson, 1991, s.3) citizen participation is central to local actions; thus encouraging reform policies prevailing in managing the water emerging concepts such as integrated management and collaborative participation (Simon and Laurie, 1999, ; Barkin, 2006a; Gilbert, 2007).

3.2. The Mexican Situation

The hydraulic tradition of Mexico goes back to pre-Hispanic times. Hispanic conquerors were amazed when they first saw the hydraulic complex of Tenochtitlan, consisting of aqueducts and works for flood control, navigation, agriculture and fisheries. In colonial times, the viceroyalty constructed monumental works of distribution, storage and drainage that sustained cities as well as agricultural emporia, mining and ports. However, the distribution of rain in the country is uneven: about 56 percent of the land is arid and semiarid, 37 percent sub humid and only 7 percent is wet (Conabio, 1998). Arid regions are located in the north and central part, while the wetlands are located in the south, mainly in the slope of the Gulf of Mexico. In addition, despite the great diversity of ecosystems and physical conditions, the national average natural water availability per capita is 4.505 m³ / person / year, ranking Mexico as a country with low availability of water according to international indicators (Conagua, 2005). The uneven distribution and scarcity make up increasing social problems, economic and environmental impact on development of the country, which is compounded by the lack of efficiency in use by the different productive sectors and public policies ineffective. Together, these factors affect the sustainable use of water.

In Mexico, regulations and instruments for water management have a history going back to the end of the nineteenth century. By 1888, the General Law on General Communications initiated the legislative tradition of waters was followed by the Federal Jurisdiction Water Use Act of 1910, which classified the sources of supply, regulated water uses and formalized regime concessions. In 1926, it enacted the Federal Water Irrigation with, which led to the National Irrigation Commission, which initiates the construction of monumental water works. In 1934 the Water Act National Property and their respective Regulations in 1936 and in 1956 and 1958, respectively, the Law on Subsurface Water Use and Regulation, which then began to regulate the extraction and use of water from this source.

In 1972 the Federal Water Act was issued, and in 1975 the first National Plan was published, which to date remains a requirement of planning. Since 1982 when the Federal Law included for the first time fees for use and development of national waters, surface and subsurface there have been two major reforms: the introduction of quotas based on regional availability (1986), and consideration of charges for discharge of contaminated wastewater (1991).

The declared main objectives of the National Water Act of 1992 (NWA) are to promote an integrated water management; to increase the participation in financing, construction and management of waterworks; to assure legal certainty on land use; and sustainable and comprehensive water management. The characteristics and objectives of the water management model are part of the concept of economic development and the central idea revolves around its use for growth. In this context, the rights and obligations of users for the exploitation of national waters are reflected in the Public Registry of Water Rights, in two official documents: 1) the authorizing title granting of the use of national waters, federal zones, extraction of materials, construction, operation or use of water infrastructure and 2) the wastewater discharge permit authorizing the discharge into receiving bodies of water owned by the Nation, establishing certain quality conditions of the discharge. Furthermore, the Federal Law establishes the obligation of users to pay a contribution for the use of national waters based on the principle that "those who use more water pay more and also does those who discharge more pollutants" (Velazquez, 2003). Clearly, water is considered as an input to increase productivity.

In the area of management, the model is completely centralized, with vertical instructions flowing downstream. The main strategy involved the construction of large hydraulic works to direct and control the flow of the resource (Ortiz et al., 2008). Perhaps because of this, the experiences of water management in Mexico are not encouraging; the main criticism lays in the enormous environmental impact of watershed transferring and inefficient management services (Barkin, 2006b). Also, there are accusations of aquifers overexploitation, and inability to implement conservation policies, treatment and reuse both by local operators and the federal enforcing agency, Conagua. The problem suggests the relevance of an alternative management with active participation of new actors.

As noted above, the NWA considers private participation in financing, construction and operation of federal water infrastructure and in providing relevant services. This is done on three premises: 1) Participation and private investment is a means not an end in itself, 2) the federal water infrastructure will not be privatized because the law does not alter the nature of public good that has under Article 113 of the Mexican Constitution, and 3) the law does not provide mechanisms for change of ownership, but only mechanisms of participation and private investment for efficiency and capitalization of domestic goods. The three new figures that are created in federal water management, in addition to traditional public procurement for works, supplies and services regulated by other laws, are “turnkey contracts”, concessions for the provision of services using the hydraulic infrastructure already built, and concessions for the construction and operation of new infrastructure.

It is evident that in the sector’s policies there is a trend towards greater private involvement in providing public services and the pursuit of economic efficiency in a design ruled by market behavior. The rigid framework of conventional governance has contributed to the spread of this model, since after the enactment of the NWA water services were transferred to local authorities, although this transfer did not come with an allocation of financial resources. The result of this limited decentralization is that about 2500 local operators lack the resources to continue providing the service and are forced to yield to private operators.

The premise of water management is expanding service coverage and sanitation for the welfare of people. Along these lines, the investments and professionalization have given way to the combined management model, where the private sector provides the service under concession from the public service utility. Experiences with the bipartisan model begin to appear in Mexico, like the service concession in Aguascalientes, the semi-privatized system in Saltillo, Coahuila, and the desalination system and sewage treatment in Los Cabos, State of Baja California Sur (Garza, 2006; Barkin, 2006a; Pombo, 2008). Perhaps the most instructive example is at Los Cabos, where drinking water is the limiting factor for development in general. As Pombo (2008) reports, with an absolute limitation to the provision of water from conventional sources, the supply occurs through desalination plants. From an economic perspective, it is the only alternative for real state and hotel investors to continue in business, while from the viewpoint of environmental impacts such facilities produce limited effects that are mostly due to electricity consumption and brine discharges at sea.

But Pombo also noted that the economic growth in Los Cabos based on a technology such as desalination is indirectly creating large social and environmental problems. This is because the solution to water supply for the hotels creates, paradoxically, increased demand for domestic supply given that the growth of the tourism industry intensifies labor migration to the area, pressing local authorities to meet that demand. The installation of a desalination plant for community service through the bipartite scheme became the best option, so that from November 2006 it is operating in Los Cabos a plant that provides water to the public water authority. One of the biggest challenges for local authorities is to design mechanisms to distribute the costs of desalination of the resource to the entire population served (Pombo, 2008).

Pombo pointed out that in Los Cabos market forces create a scenario where the tourist developers themselves treat their own sewage, in what might be considered an archetype for tourism development for other parts of Mexico where the industry is the main source of pollution (Pombo, 2008). As Los Cabos hotels are near total reuse of water, the possibility of the beaches being affected by sewage pollution is substantially reduced, thus preserving the aesthetic value of the beaches and resulting in significant economic benefits by ensuring the quality of the recreational facilities.

Criticism to the bipartisan of the model has also emerged. The main criticism is that by privatizing a vital resource it violates the fundamental right of universal access to water; the argument is that only those who can afford it will have access to the resource. It is also argued that this model has failed to develop sustainable management because the revenues of the water utilities do not recover the actual costs of providing the service, also, the analysis of experiences in Latin America also shows that "Corruption is an inherent part in the privatization of water" (Hall et al., 2001). The list goes on: Often the model has failed to fulfill the promises of efficiency and effective expansion in coverage, and the extensions made of the networks have been offset by cuts in service caused by the inability of large segments of the population to pay for the service (Hall, 2001; Hall et al., 2001; Barkin, 2004)

4. New Water Culture (NWC)

Recent experiences in different countries favor reforms to the conventional modes of water management. The breach is growing between the model which assumed water demand and supply solutions

promoted through public works programs (Barkin, 2006b), and an alternative approach that offers a comprehensive sustainable development.

4.1. New Water Culture : Example of Tripartite Model

A proposal generating growing sympathy among large international organizations like the World Bank or the World Health Organization is a water management model called "tripartite" model. The initiative, which includes public, private and social actors originally emerged in Spain as a social movement opposed to the national water policy of the Government of 1999-2004, which proposed an ambitious infrastructure program to build huge dams and other public works that would facilitate the water transfer on a large scale from the Ebro River in the northeastern region of Spain to the semi-arid south (Barkin, 2006a).

The NWC is rooted on the principle of sustainable development (idea based on the integration of economic development, social welfare and consideration of environmental limits) and proposes a comprehensive assessment of the proposals in relation to the social appropriation of water in terms of the limited availability of resources, considerations of social justice, appreciation of the multiple environmental values of water from the local perspective and the simultaneous analysis of supply and sanitation. The Management tools to operate the model are property rights and collective participation. Both emerged from the approach of Integrated Management of Water Resources, which aims to design new policies that include the fundamental principles of the NWC that asserts that water policies should encourage two key issues: 1) objectivity and impartiality on the operator agencies together with adequate information and technical expertise in the process of decision making, 2) inclusion of the needs of the ecosystems, particularly the availability of water when taking the administrative decisions for resource allocation.

Because water is a regionally limited resource, the NWC also points to the need for an assessment, both socially and economically and ecologically of the best uses of water. Summarizing its basic principles, the NWC defines four hierarchal core functions of water in the environment:

- 1) Water for life (basic dignity bottom line). Clean water as a human right for the individual and collective welfare should not be denied to any part of society, not even using the argument of financial distress.
- 2) Water for ecosystem maintenance. Ensuring the integrity of the exploited aquifers for urban water supply and that the quality of the discharges does not threaten the health of the receiving ecosystems.
- 3) Water for general social activities. This includes urban services, health, sanitation, and social cohesion by equitable supply to all groups.
- 4) Water for economic growth and development in general. Any productive activity and of course the quality of life and social welfare require water as a basic input.

According to international experience, the tripartite model has greater sustainability because: 1) the ownership and commitment of people to the system, 2) the ability of the user to monitor the quality of the service, 3) transparent accountability, 4) the identification of opportunities for investment planning and execution; 5) the neutralization of political engineering and patronage, 6) the shared vision of development and 7) the credibility and confidence in local government and private sector. Worldwide, there are examples where the approach has been applied to the NWC for different cases of water and sanitation management (Table 3)

Lusaka, Zambia	Monthly Card Water Payment System Resident Development Committees
Malawi	Piped Supply for Small Communities
Durban, Südafrika	Metro Water: Private Sector Partnerships to Serve the Poor Semi-Pressure System with Ground Tank
Guinea	Leased Contract Water Supply
Ivory Coast	SODECI's Experience in Water Provision
Kano, Nigeria	Public Toilets with Private Management
India	Cost-Effective and Appropriate Sanitation Systems in Sulabh International Social Service Organization
Sri Lanka	Community Micro-planning (the model later spreads to Bangladesh, South Africa, Poland, Chile and some Central American countries)
Burkina Faso	Demand metering to improve services of urban sanitation

Uganda	Safe Water Supply and Sanitation and Waste Recycling and Re-Use
Tanzania	Ibungilo Community Clean Water Supply Project
Colombia	Community as Drinking Water Provider in a Low-Income Area
Brasil	Rehabilitation of Urban Areas; Guarapiranga Project
Bolivia	Pro-Poor Water and Sewer Concessions Formal and informal networks of water supply
Chile	Program of protection of high Andes wetlands Rural water supply program
Peru	New water operators Changes in the management model to improve the sustainability of water supply and sanitation in small communities. Experiences in strategic planning Pilot project to improve water and sanitation management and sustainability in a small districts

Source: Altaf and Hughes 1994; Goethert and Hamdi 1997, Simon and Laurie 1999; World Bank 2001; CARE-PROPILAS 2005; People et al. 2006, Gilbert 2007; World Bank PASRALC 2007.

The Peruvian case is illustrative: the main actions of that experience (World Bank-PASRALC 2007) consisted of: 1) Approving the basic bylaws to establish the legal framework required in the provision of services, 2) Installing a supervising neighborhood community council, 3) Promoting the hiring of local or regional specialized operators and 4) Transfer the services to the specialized operator. This initiated a tripartite alliance where, on the one hand, the local municipal government fixed water fees (by virtue of its legal authority), but with the consent of the population and the establishing of explicit levels of quality and coverage; local authorities are still the owners of the infrastructure but the people and the specialized operator support the task of improving and expanding the system in a participatory management model, establishing the rights and duties of users and the specialized operator. On the other hand, the population, through a local community board, monitors the quality of service that users receive. Finally, the expert operator hired by the city provides water services and sanitation.

4.2. New Water Culture (NWC) Outlook in Mexico

Mexican water policy pretends to direct water management towards the conservation of the hydrological cycle, comprehensive and sustainable use of resources, and improving the quality of life, among others. In order to reach those goals changes in the legal system must be made (Carabias et al., 2005), creating a good opportunity to include the principles of NWC in the upcoming legislation.

In Mexico there is no practice of application of this model, but there are regulations that set the stage for property rights and a market for utilities. There are national experiences of the bipartite model that sets the stage (Barkin, 2006b; Pombo, 2008) and open the possibility of implementing a more advanced approach. The missing link is institutional development. For example, there should be generated the figure of neighborhood committees, with at least three functions: 1) Monitor the quality of services, 2) Determine the authority along with the quality and price of water and a membership fee (refers to marginal cases, establishing a basic provision of water at a special price) 3) Define the authority along with the partnership with the specialized agency.

Mexico is still developing its water policy, but with no doubt it should be directed towards integral management. The country is making efforts to solve the problems of water and sanitation supply. The dynamics of development is promoting new urban ideas, and validated models are required to guide effective management and promote sustainable development for the citizens and the ecosystem. Real state development is an opportunity to implement new strategies to prevent the negative effects of inadequate planning already happening in other parts of Mexico. In that context, the model of the NWC should be perceived as the most advanced management tool available to regional planners to prevent failures of the past and to promote sustainability in the management of water resources.

5. Conclusions

The evolution of water management models is related to the development strategy and the institutional structure of a country. The image of development of a society is the result of the most permanent and structural national economic policies, the way a society uses its resources, relates to other societies, and make their own institutional structures, (Sartor, 2006). In the evolution of water management in the world we identify three models: 1) Government runs management, 2) Public-private management, and 3) Tripartite management, or public, private and social management. The first corresponds to the Weberian model of governance based on principles of hierarchy, neutrality and public service career, where the state is the governing body of public

affairs. The second is the design of the NPM proposed innovation, improvement in services, setting up agencies, among other settings, where a public-private arrangement sets targets based on standards, performance, results and money. The tripartite management approaches a network governance model that emphasizes the importance of interaction between different actors, where stakeholders are developed in an area of responsibility and the state guarantees the quality of the relationship. The NWC is an example of the latter. It is proposed as a viable alternative for sustainable ecosystem development, as it incorporates all stakeholders in the process of water management. The experiences reviewed for the elaboration of this article show that the main challenge for its implementation is to articulate rights and responsibilities among the players within the three main universes in a governance framework favoring the integral development of society. Water management involves multiple interests, which are manifested locally. In this sense, collective participation in the planning process and decision making has proven to be a good tool to produce equitable and holistic solutions. Participation of stakeholders should be pursued in an atmosphere of mediation and consensus, which discuss and understand different points of view and propose alternative solutions (see Ruelas, 2006) and in a scenario of responsibility. The governance of water requires an approach with these characteristics. Mexico's water policy should be directed toward integrated management for efficient governance. New real state developments create opportunities to apply better planning strategies and here it is suggested that the model of the NWC opens a route to press forward these initiatives.

Genişletilmiş Özet

Yetmişli yıllarda kalkınma ajansları ekonomik büyüme ve kar dağıtımını konularını tartışmaktaydılar. Bu büyüme ve sermaye hareketlerini teşvik etmek, fakir ülkelerde verimliliği artırmak ve su temini ve sağlık önlemleri gibi temel kamu hizmetlerine erişimi kolaylaştırmak için geleneksel yönetim standartlarında değişikliğe gidilmesinin gerekli olduğunu konusu vurgulanıldı. 19. yy. sonlarına doğru, özellikle de dünyanın birçok bölgesinde su kaynaklarının talep uygunluk oranı kıtlık seviyesine yaklaştığından ötürü, su kaynakları dünya sahnesinde giderek daha önemli bir konu haline gelmiştir.

Su yönetimi modellerinin evrimi, bir ülkenin kalkınma stratejisi ve kurumsal yapısı ile yakından ilgilidir. Bir toplumun gelişiminin yansıması, en kalıcı ve yapısal ekonomik politikalarının, toplumun kaynaklarını kullanma şeklinin, diğer toplumlarla ilişkilerinin ve kendi kurumsal yapılarını ne kadar iyi kurduklarının sonucu oluşmaktadır.

Su yönetiminin dünya sahnesinde geçirdiği evriminde üç modelden bahsedebiliriz: 1) Hükümetlerin yönettiği model, 2) Kamu – Özel yönetim modeli ve 3) Üçlü yönetim modeli – kamu, özel ve sosyal partilerin ortak yönetimi. Devletin kamu işlerinin yönetim organı olduğu, hiyerarşi, tarafsızlık ve kamu hizmet kariyeri prensiplerine dayanan ilk model Weber tarzı yönetim modeline tekabül etmektedir. İkinci model yenilik, hizmetlerde iyileştirme, kurumların tesisi ve diğer düzenlemeleri de içeren Yeni Kamu Yönetimi modelinin tasarımını önermektedir. Bu modele göre Kamu ve Özel sektörden oluşan bir düzenleme standartlara, performans, sonuç ve paraya dayalı hedefleri belirler. Üçlü yönetim modeli, değişik aktörler arasındaki etkileşimin önemini vurgulayan bir ağ yönetim modeli yaklaşımıdır. Bu modelde yer alan paydaşlar sorumluluk alanlarına göre belirlenmekte ve devlet iletişimin kalitesini garanti altına almaktadır. Su yönetimi sürecine tüm paydaşların katılımını destekleyen bu model, sürdürülebilir ekosistem gelişimi için uygulanabilir bir alternatif olarak öne sürülmektedir.

Bireysel ilginin ve kamu işlerinin çözümünün tamamen devlete yüklendiği Geleneksel yönetim modeli genelde başarısız sonuçlar vermektedir. Yaşanan başarısızlıklar ve zorluklar, özellikle son yüzyılda kamu işlerinin yönetilmesi konusunda alternatif yollar arama noktasında motive edici olmuştur. Bu zorlukların başında devlete yüklenen aşırı sorumluluklar yer almaktadır. İkinci zorluk yine aşırı sorumlulukların yüklenmesinden kaynaklanan çoğulcu temsilde yaşanan sıkıntı ve başarısızlıklardan oluşmaktadır. Bürokratik modelin eksiklikleri idari bir reform yapılması konusunda çabaların hızlanmasına neden olmuştur.

Yeni Kamu Yönetimi (YKY) bu çabaların sonucu olarak ortaya çıkmıştır. Fakat YKY, kamu çalışmalarının maddi hedeflerden ziyade öncelikli olarak oyuncular arasındaki ilişkilerin kalitesinin idare edilmesi gerektiği argümanı ile tartışmalara neden olmuştur. Devletin verimli hizmet sağlama konusunda sözde yetersizliği tartışılmış, bu nedenle devletin ana oyuncu olduğu Geleneksel yönetim modelinin yerine özel teşebbüsün katılımının tercih edildiği bir tasarıma öncelik tanınması önerisi yinelenmiştir. Bu modelin önerisi olan "İkili Yönetim" YKY fikrinin bir parçasıdır; altyapı ve kamu hizmeti sağlama konusunda birbirlerinin güç ve eşsiz bireysel özelliklerini tamamlayan hükümet ve özel sektör arasında sağlanan bir düzenleme.

Dünyadaki kamu-özel su yönetim uygulamaları bize hem başarıları hem de hataları teşhis etme imkanı vermiştir. Gelişmekte olan ülkelerde yaşanan bir çok ikili yönetim modeli deneyimi başarısızlıkla sonuçlanmıştır. Ama bu deneyimlenen bu başarısızlıklar yönetim geliştirme için alternatif bir yaklaşım olarak üç sektörün katılımını karakterize eden yeni bir model doğmasına ortam hazırlamıştır: Kamu, özel ve sosyal. Yeni Su Kültürü (YSK) olarak tanımlanan bu "üçlü yönetim" modeli, çoğu uluslararası finansman kuruluşu tarafından kabul edilmiştir.

Deneyimler bize su yönetiminin; toplumsal katılımın, bilgiye erişimin, oy birliğinin ve hizmet sunumunun denetlenmesi gerektiğini göstermektedir. YSK, su yönetimi altyapı projelerinin uygulanması ve karar alma aşamalarına sosyal sektörün katılımının sağlanmasının, devletin bakış açısına göre, oyuncuların etkileşimi problemlerinin başarılı bir şekilde çözümüne olanak sağladığını öne sürmektedir.

Bu makalenin hazırlanması sırasında incelenen farklı deneyimler göstermektedir ki üçlü yönetim modelinin uygulanmasında yaşanan en temel zorluk, toplumun bütününe gelişimine ayrıcalık tanıyan yönetim çerçevesi kapsamında yer alan üç ana kütledeki oyuncular arasında hak ve sorumlulukların açık bir şekilde belirtilmesidir. Su yönetimi yerel düzeyde birçok alanı ilgilendirmektedir. Bu anlamda, planlama ve karar verme sürecine toplu katılımın eşitlikçi ve bütünsel çözümler üretmek için iyi bir araç olduğunu kanıtlamıştır. Paydaşların katılımı, farklı bakış açılarını tartışıp anlamaya çalışan ve alternatif çözümler sunabilen bir arabuluculuk ve uzlaşma ortamında takip edilmelidir.

Suyun yönetimi bu özelliklere sahip bir yaklaşım gerektirmektedir. Şu anda, Meksika ülkenin çeşitli bölgelerinde yeni kentsel gelişmeler ve büyüme nedeniyle yaşanan su yönetim sorunlarını çözmek için çaba sarf etmektedir. Ancak, hala YSK tasarımının uygulanmasında noktasında geride kalmaktadır. Meksika'nın su politikası etkin bir yönetim için bütünlük bir yönetime yönelik olmalıdır. Emlak piyasasında yaşanan yeni gelişmeler daha iyi planlama stratejileri uygulama açısından fırsatlar yaratmakta ve YSK modeli bu girişimleri daha ileriye götürebilecek bir yol olarak ileri sürülmektedir.

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