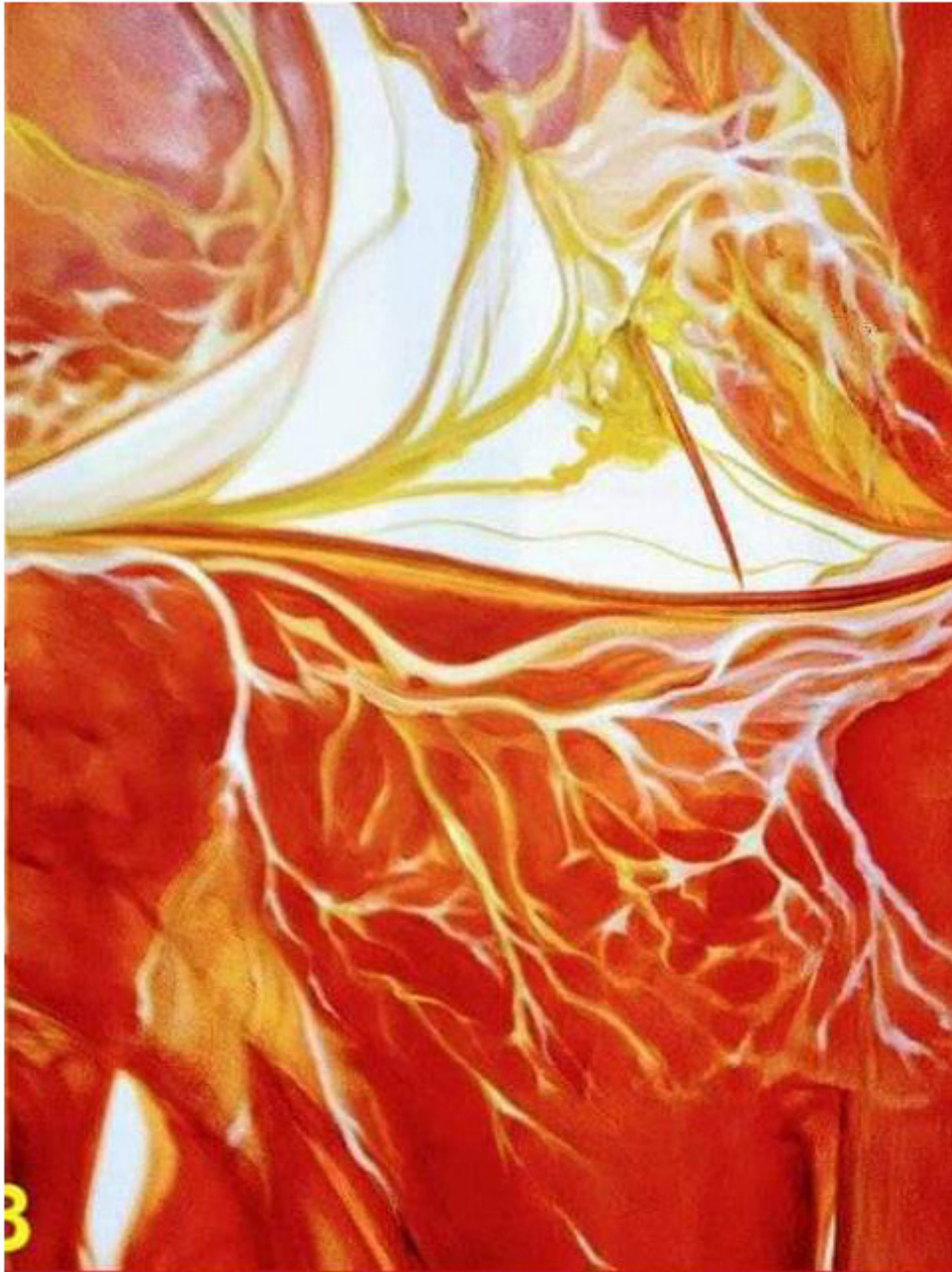




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Legacies and new obstacles for an inclusive water governance: the California experience

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Abstract

Scholars from different political approaches argue that governance may harmonize antagonistic interests. However, governance's concept is still imprecise, and it has been used in a contradictory way. This paper's aim is to discuss governance limitations to overcome obstacles regarding land monopolization and water 'commoditization'. Through California experience, this paper shows how historic legacies have reinforced changes in commodity market, narrowing the margin of maneuver of vulnerable households. Inclusive governance may be the best shot to reduce inequalities regarding water access, but it is not a magical solution. There is a long way to follow and political fights still must happen.

Keywords: water governance; water inequalities; public participation; environmental justice

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Legados y nuevos obstáculos para una gobernanza del agua inclusiva: la experiencia de California

Resumen

Los académicos de diferentes enfoques políticos sostienen que la gobernanza puede armonizar intereses antagónicos. Sin embargo, el concepto de gobernanza sigue siendo impreciso y se ha utilizado de forma contradictoria. El objetivo de este documento es discutir las limitaciones de la gobernanza para superar los obstáculos relacionados con la monopolización de la tierra y la “mercantilización” del agua. A través de la experiencia de California, este documento muestra cómo los legados históricos han reforzado los cambios en el mercado de productos básicos, reduciendo el margen de maniobra de los hogares vulnerables. La gobernanza inclusiva puede ser la mejor opción para reducir las desigualdades en el acceso al agua, pero no es una solución mágica. Queda un largo camino por recorrer y aún deben darse luchas políticas.

Palabras clave: gobernanza del agua; desigualdades hídricas; participación pública; la justicia ambiental

Scholars from different political approaches argue that governance models may be the best way to harmonize antagonistic interests, but governance’s concept is still imprecise, and it has been used in a contradictory way. The aim of this paper is to discuss governance model limitations to overcome land monopolization and water ‘commoditization’, which are blocking low-income households to access drinking water and sewage services.

In methodological terms, California was chosen to highlight that water access inequalities are not restricted to underdeveloped countries, although the most dramatic cases are usually found in those countries. The paper describes not only how barriers to water access were historically created but how they have been preserved to support the balance of political forces. The analysis of California experience may offer suggestions to rethink policies or strategies in other places, even in those with distinctive social and historical features. In this sense, some similarities between Brazil and California were registered in the paper. However, this is not a comparison in full sense because the methodological approach did not set comparable variables. So, the Brazilian references should be understood as an illustration to enrich the discussion about California. The core of the question is: why places with different social features may present similar results?

The paper was organized in five parts besides this introduction. The first one shows how the concept of governance may be adjusted to serve different interests. In other words, how the idea of governance may be used to support both conservative and progressive policies. The second part discusses the role of land monopolization in a building process of water inequalities, which includes some key-elements regarding to Brazilian experience as illustration. The next part shows how land monopolization and water inequalities are related in California history, highlighting its agents and process. The fourth part presents the design of governance framework in California and its limitations. The conclusions are presented in the final part.

Governance: which one are we talking about?

What exactly is governance? The word governance has been used by different groups to defend antagonistic principles. In the market-oriented approaches, governance is usually understood as a bureaucratic tool used by experts to reach specific results. In other way, social-democratic scholars believe that governance may be used to enlarge low-income household empowerment in the decision-making processes (Castro, 2007), but there are some gaps that may substantially alter the meaning of governance, such as: citizenship, representation, composition of governance institutions, and transparency.

In the market-oriented approach, citizenship means the freedom to choose. Then, protecting one's citizenship implies to protect the individual's rights and properties against State intervention, which means that citizens and consumers should be considered as equals. In opposition, social-democratic scholars argued that individual rights must be completed by social rights (Castro, 2007), then solidarity principles may be equal or more important than market concepts like efficiency or productivity.

Another challenge involves handling the representation and legitimacy questions. Market-oriented studies usually include an idealized idea of symmetry or equipoise of power among participants in governance models. Based on this assumption, the decisions made by governance are a result of rational, balanced and legitimate discussions. Talking about fundamental of institutional design, Picciotto (1995) said that an "effective governance involves cross-cutting and shifting alliances as well as deliberate capacity-building efforts aimed at mutually supportive operation of the state, the market, and the civil society" (12). This understanding of governance removes any idea of power imbalance and transforms the decision-making process in a harmonious experience. But, harmony is not a common situation even in traditional government models because think tanks, lobbying and other practices may guide government decisions, so governance systems are presumably under the same influences as well.

The governance systems may include a combination of different institutions like regulation agencies, government departments, basin comities, forum, etc. The decision-making power and composition membership of each institution defines the power balance in a governance system. Therefore, the creation of discussion instances does not ensure power to the low-income families in the decision-making process. The São Paulo State (SPS) experience provides examples: (a) the water policy is set by the SPS government; (b) SPS government is the majority shareholder of the biggest SPS water company (SABESP), which provides services to most of state households, (c) the SPS governor points several members of SPS regulation agency, and (d) SPS government has representatives in basin committees.

Finally, transparency and accountability controls are fundamental tools for a governance system's success. Hall (2015) argued that long-term concession for water services creates incentives for corruption because it is a one-off opportunity to ensure stream revenue for 25 to 30 years. The corruption cases may be found in both developed and underdeveloped countries. In some circumstances, government and private capital may share interests. In sum, this presentation do not close the discussion regarding to governance. Instead, it serves to show that governance and its instruments has limits either in conceptual terms or in concrete applications.

Legacies and new structural conditionings blocking inclusive governance

The link among water access, land and power is not something new. Wittfogel (1957) showed that the hydraulic societies like the Egyptians and the Chinese had prospered through sophisticated irrigation systems that were controlled by its rulers. Wittfogel argued that the hydraulic rulers used their power over water control to avoid their opponents, who were usually military and religious groups. In modern capitalist societies, water resources are owned by the State, but it does not guarantee a balance between the individual rights and the society's needs. Indeed, alliances between the State and large corporations are common in both the developed and the underdeveloped countries, so land control (and its natural resources) is still the key-element to explain the roots of obstacles to water accessibility.

In the 1970s, Lewis (1980) showed that less than 0.5 percent of landowners (including corporations) owned 40 percent of the nation's land, while the bottom 78 percent of the landowners owned only 3 percent of the private lands. A substantial part of farmland (44 percent) is owned by non-farmers. According to Geisler (1995), the land access limitations explains in part the social inequalities in the United States. In addition, Geisler argued that usually the public land policy was used in favor of the interest groups through one-sided access to timber, grazing, water and mineral rights, among other mechanisms of public-private transferring.

In Latin America, several attempts by agrarian reforms failed because of land allocation was not accompanied by public policies to support family-based agricultural systems. Also, small farmers were pressured by global commodities growers (Guereña, 2016). In line with the neoliberal approach, governments allowing land allocation in favor of mineral and agricultural production may imply negative results not only for the small growers, but also for all the domestic economy, since the reprimarization of productive structure is a regression specially for the undeveloped countries. Cano (2012) argued that Brazil has faced a deindustrialization process: between 2000 and 2013, the percentage of export commodities increased from 23.4 percent to 47.8 percent, while export of industrialized goods declined from 60.7 percent to 39.3 percent. These changes have reinforced the competition for water accessibility and small farmers must fight against the rural oligarchies, but also against the global companies and financial investors.

The land monopolization combined with geographical isolation, lack of job opportunities and poor transportation systems allow large landowners in controlling the local labor market, pushing down income and increasing poverty. Griffin et al. (2002) argued that the agricultural policies might carry a 'landlord biased' against the small farmers. This bias might assume different formats, such as: a) research policies to help the export of crops; b) agricultural price support is often more favorable for the big farmers than to the smaller ones; c) regional development policies are usually driven to fertile and accessible areas where, for many reasons, land ownership tends to be more concentrated and; d) big farmers have more credit access than the smaller ones. Besides water control, landlords have several (explicit or not) coercion tools to persuade the small farmers, such as militias and landlord associations. Both are used to suppress any resistance attempts or creation of any sort of organization by the small farmers.

Brazil offers an example on how land and water control allows the landlords to

subordinate the low-income families and how water accessibility may help to change this situation. For decades, an arrangement between rural oligarchies and government had ensured labor force control by the landlords in the northeast of Brazil. The entire process is called 'Indústria da Seca' (drought industry). The federal government of Brazil built water facilities in private lands in exchange of political support (Pomponet, 2009).

However, some recent initiatives driven by civil society organizations have attempted to minimize the inequalities regarding the water accessibility. A cistern building program supported by the government and private capital organizations has improved the water accessibility for the low-income families (Santos et al., 2013). The cistern was designed to store rain water and provide water for a family's basic needs up to eight months. The cistern program is accompanied by water governmental distribution program managed by the Brazilian army to avoid political influence over the families. Despite the importance of these programs to improve household autonomy from the landlords, they are still emergency practices needed to minimize the long-term drought effects. The programs such as the cistern project have been the best shot to empower low-income families but they are insufficient in providing enough water to support a family based economic activity.

The California experience: wealth and water access inequalities

California has two large water systems, which are the Central Valley water project (CVP) and the California State Water Project (SWP). The first one was built by federal government in the 1940s and it has been used to support the agricultural industry mostly in Central Valley while the SWP, which was built between 1960 and 1980 and it has been serving mainly urban areas bellow Bakersfield besides agricultural activities. San Francisco and Oakland have their own aqueducts while Los Angeles Metropolitan area takes its water from Colorado River. A myriad of canals, reservoirs and pumping systems are coordinated by CVP and SWP authorities but the East Bay Municipal Water District and the San Francisco Public Utility Commission are autonomous.

The California's water delivery system supports both the agricultural areas inland and large cities in the coastal zones. However, high expenses in maintenance to support the water system imply disputes between different groups regarding to how to share its financial obligations. Besides, environmentalists' power has increased since the 1980s, when their efforts slowed down substantially the expansion of water project facilities (Hundley, 2001; Hanak & Lund, 2011). In sum, California's water policy reflects the balance of power from three powerful players: large farmers, environmentalists and the urban actors, which are formed by local politicians, real estate developers, industrialists and service sector investors. In other words, low-income households have a narrow space in discussions about water policy in California.

The roots of the agricultural irrigation supremacy in California were born during Roosevelt's administration and his efforts to build the Central Valley Water Project (CVP). Initially, the CVP was designed by the Californian government, but the Great Depression (1930s) transferred the CVP to the federal hands. To avoid land speculation, the 1902 Reclamation Act included a provision limiting up to 160 acres the federally irrigated land owned by an individual. The 1926 amendment of Reclamation Act defined that landowners with more 160 acres should dispose their excess land within ten years at a price that reflected the land's value before the commencement of the water project. The family farm

concept was the basis of Western economic development strategy and the CVP project was a part of it. The landowners were benefited by the federal government in two ways: first, they did not pay interest on the funds advanced by government to funding the CVP project and; second, the resources obtained with the sale of electricity produced by CVP hydroelectric plants (operated by Federal government) would be used to pay a part of the CVP's operating costs (Hundley, 2001).

However, most of the Central Valley land passed into the private hands before the Reclamation Bureau's arrival. A government study conducted twelve years before the CVP's arrival revealed that more than half of the irrigable land belonged to only 6% of landowners in some representative counties of Central Valley (Hundley, 2001). The judicial battle around the 160 acres limitation took several years and during this time political and economic conditions changed in the U.S. By the end of WWII, Truman's administration believed that the demobilization of war efforts could reduce economic growth, carrying the U.S. back to its depression years. Besides, wartime partnership between governments and businesses showed a great economic performance. In 1947, a law adjustment called 'Technical Compliance' extinguished the 160 acres limitation. Technical Compliance set that anyone linked to land irrigated by the CVP will have the right for government subsidies, even when an individual did not live or work on that land. Therefore, any stockholder linked to a corporation could claim 160 acres under the 1902 Reclamation Act. (Hundley, 2001).

The water legislation in California was born in the 19th Century, when population grew quickly pushed by gold rush, which means that water streams became crucial asset for mining and related business. As a result, water rights were mainly defined by frontier tradition. According to the prior appropriation doctrine (PAD) water belongs to the state but anyone can get water after the first settler takes what he needs, i.e., the PAD emphasizes individual rights instead of the sense of justice or equity (Hundley, 2001). The PAD was adopted by other American States and it was recognized by the Federal government through congressional endorsement in 1866. However, Congress's endorsement extended the PAD for all applications such agriculture or industry beyond mining. In reason of disputes for water a new doctrine was created: the 'riparian rights doctrine' (RRD). The riparian doctrine was set by Civil code in 1872 conferring equal rights for water upon all owners of property along a watercourse instead of prioritizing who settled first in a place (Kanazawa, 1988; Gopalakrishnan, 1973).

Today, Beaman (2014 *apud* Pincetl & Hogue, 2015) argue that 24 entities with senior water rights, most of them agricultural enterprises, have access to water twice more than the rest of the growers annually. In fact, the riparian doctrine did not created more access to water in comparison to the prior appropriation doctrine. In attempt to help the small growers, the Wright Act of 1887 created irrigation districts, allowing the growers to acquire water rights, build dams, canals and other facilities, sell bonds and define property assessments to increase availability and distribution of water among its members. The early irrigation districts experienced financial difficulties and failed (Kanazawa, 1988), but they paved way to new ones set by local governments and private companies (Hanak & Lund, 2011).

The Westland Water District (Fresno County) illustrates the legacy of water and land policies in California. In 1959, Representative Bernard F. Sisk got Congressional approval allowing the Bureau of Reclamation to divert water to San Luis Unit Project. The

Sisk's project promised provide water to 6,100 farms and 60,000 residents. The San Luis reservoir project, which was built in Merced County, was approved by Congress, and water arrived in 1968, transforming Westland District into the most powerful water district in the U.S. The Westland is controlled by a few landowner families and corporate farms (Table 1) that receive impressive amounts of subsidies. A study conducted by Natural Resource Defense Council and California Rural Legal Assistance Foundation showed that the average subsidy to Westland was \$217 per acre, while its average net revenue was \$290 per acre (Carter, 2009). In 2009, the Bureau of Reclamation gave out more than \$687 million in subsidies over a span of two years to farmers in California and Arizona (Burke 2009 *apud* Vanderwarker, 2012).

Moreover, Westland's landowners sued federal government, seeking compensation for losses that they suffered because of lack of drainage services in the San Luis Reservoir. According to the Westland District representatives', the accumulation of saline groundwater has deprived landlords of productive use of their farmlands and has devalued their properties. An agreement signed in 2015, between Westland District and Federal government (House Bill n. 5217 - "San Luis Drainage Resolution Act"), defined several gains for the landlords: (i) extinguished a debt of \$294 million that they owed to the federal government covering the district's share of the CVP's cost, (ii) transferred the responsibility for building a system to safely disposal of toxic agricultural waste from the government to the district without imposing explicit antipollution benchmarks, and (iii) transferred federally funded water infrastructure to the district without compensation. Besides, the deal transforms Westlands' 25-year contract for federal water into a permanent non-reviewable right to as much as 895,000 acre-feet annually, impeding federal government diverting Westlands' water to other social uses.

Table 1 – Main landlords located in Westland Water District in 1982

Owner	Property size (acres)	Percentage of Westland District
Southern Pacific Railroad	106,000	18%
Boston Ranch	26,500	4%
J.G. Boswell	24,000	4%
Harris Farms	18,400	3%
Standard Oil	10,500	2%

Source: U.S. Congress (1982).

Pesticides and fertilizers are the main source of water contamination in the Central Valley counties, besides industrial manufacturing waste and heavy metals (Pannu, 2012). In San Joaquin Valley, more than 1.3 million people cannot drink water due to nitrate concentration (Landon et al., 2011 *apud* Pincetl & Hogue, 2015). The situation is worse in the unincorporated communities (UC), which are constituted by low-income families working mainly in the agricultural and service activities. The UC are places not linked to the municipality jurisdiction; therefore, they are submitted to a higher level of government, such as state, province or the federal government. Despite only 20% of Californians living in the Central Valley, 56% of all Maximum Contamination Violations take place there and several small and well-based water systems are excluded from the violation statistics, which

means that drinking contaminated water is underestimated exactly where prevention is more needed (Pannu, 2012).

The UC are home to African-Americans, Dust Bowl migrants, Latinos and other low-income families. In San Joaquin Valley, for instance, African-Americans represent around half of the households who live in the UC affected by a lack of basic necessities, such as safe drinking water, sewer systems, public transportation or safe housing (Flegal et al., 2013) (Table 2). The pattern of urban segregation in the U.S. explains the existence of these poor enclaves. Several municipalities decided to segregate these neighborhoods to avoid the minorities' political influence because the addition of voters from minorities groups may change the balance power against white-controlled municipal governments (Aiken, 1987). In Mebane city (North Caroline), Johnson (*et al.*, 2004) found evidences of institutionalized efforts made by the local officials to discriminate minorities' communities, including conscious denial to provide sewer services. Worse than the refusals and selective annexations, some municipalities even made de-annexations of the low-income communities (Mukhija & Mason, 2013).

Table 2 – **Demographic description of unincorporated communities (UC) in San Joaquin Valley**

County	County's population living in unincorporated communities (%)	Unincorporated population that are African-American (%)	Households in low-income counties (%)
Total	30,8	48,3	47,7
Fresno	21,3	50,4	50,3
Kern	40,3	42,9	49,4
Kings	28,9	54,9	48,8
Madera	56,1	41,5	48,0
Merced	37,4	54,7	49,2
San Joaquin	23,0	43,5	42,5
Stanislaus	27,3	44,7	43,6
Tulare	38,7	61,6	51,3

Source: Adapted from Flegal et al., 2013.

The spatial fragmentation, chronic underinvestment and white-control municipalities' refusal to share its basic sanitation facilities created insurmountable barriers to improve the life conditions in the unincorporated communities. Several of these communities host less than 1,000 residents, so they are unable to set their own water district because of lack of the minimal scale required for funding water facilities and cover its operative costs. Ironically, some of those communities are located within the boundaries of at least two water districts (Pannu, 2012). In other cases, city network running through unincorporated area, but people who live in those communities have no access to public services (Flegal et al., 2013). Nevertheless, expenses of people living in these rejected communities provide additional tax revenues to the municipalities located around them (Aiken, 1987).

In contrast to the large Californian growers, the UC households should pay market rates for water, and their expenses regarding the purchase of water may reach over 10% of their annual incomes (Pannu, 2012). People from UC should buy bottled water to cook and drink because of high incidences of pesticide contamination in soil and water streams. In Fresno County, Galik (2015) investigated the demographic profile and water expenses of 75 households distributed in five low-income communities: Three Rocks, Cantua Creek, Raisin City, Lanare, and Five Points. The families from Three Rocks expended 3.7 percent of their annual incomes to buy water from the Westland Water District. In the last year, the water rate charged by the Westland Water District has increased from \$348 to \$1,140 an acre foot because of the drought. The Raisin City has its own Water District that provides groundwater primarily for agricultural purposes, nevertheless water expenses reached 9.2 percent of the household income. Lanare is the only place where the water cost is low, because 70 percent of the population receives free water from the State government (Table 3).

Table 3 – Water expenses in selected Fresno communities

Community	Households	Latinos in total households	Annual water cost (US\$) (a)	Annual cost of drinking water (US\$) (b)	Total water cost (US\$) (a + b)	Annual Household income (US\$)	Water expenses over total income
Three Rocks	246	95.5%	2,016	636	2,652	17,353	15.3%
Cantua Creek	466	98.9%	1,968	456	2,424	18,542	13.1%
Raisin City	380	81.1%	1,056	312	1,368	14,903	9.2%
Lanare	589	88.1%	564	276	840	45,690	1.8%

Source: Adapted from Galik (2015).

Note: Five Points was not included because there is no information about the water rate and income.

In sum, uncertain access to water by unincorporated communities, which are usually located in the less attractive and fertile regions in the Central Valley, reinforces the cycle of exclusion and inequality and puts at risk the viability of those communities in the long-term. Pannu (2012) argued that the lack of access to regular water undermines the human stability in at least three ways: i) it disrupts an individual's expectations to survive where they live, ii) it implies negative effects on the health and crack development possibilities, and iii) the water expenses reduces the funding for other productive investments. In Pannu's words, "[...] further, long-term investments in property depend upon steady access to affordable, safe residential water. The reliability of water availability, in turn, increases home and land values and stabilizes long-term settlement patterns. The relationship between water, land valuation, and permanence suggests that lack of access to affordable, safe water severely undermines attempts to build intergenerational property wealth. Instead of seeing returns on investments made to improve residential property, water insecurity either eliminates these benefits or results in depreciation over the lifetime of a single homeowner. Unreliable or inadequate water access, then, plays a major role in undermining asset wealth in the short- and long-term". (2012:236)

The limits of water governance in California

Null (*et. al.*, 2012) argue that the water policy problems in California are related to lack of institutional leadership and dysfunctional water governance. According to the Little Hoover Commission (LHC, 2010), the water supply system in California was built and is operated by two different government levels, federal and state government, which requires a huge coordination effort. For the commissioners, after the end of the large dams' and canals' construction period (in the 1970s), the priorities have changed, but the agency's structure apparently remains the same for some of its aspects.

The U.S. Bureau of Reclamation (USBR) and the California Department of Water Resources (DWR) are mainly responsible for the CVP and the SWP water regulation, nevertheless CVP and SWP often demand different requirements to meet similar laws because they have owners in distinctive government levels (LHC, 2010). The USBR was a powerful agency during the expansion of water projects in the United States, but from the 1980s, the pressure from the environmentalists, budget limitations and doubts about security marked the end of the golden age of dams' construction. Today, the USBR drives its resources to environmental protection (Pisani, 2003) and to regulate water projects and their related facilities, such as the power plants.

The DWR was the key-piece of California government during the SWP building phase. Nowadays, planning, management and environmental protection are its core tasks. The Division of Water Rights (DWRS) is responsible for approving diversion water projects according to the average annual amount of water to create a balance in the availability of surface water. The main recommendations defined by the LHC commission were a redistribution of decision-power in state government in order to reducing governance conflicts among planning, supervision and operation of water system, with special attention to groundwater control (LHC, 2010).

Although management problems may be related to different causes, such as political approaches, economic limitations and inter-level government resistances, Californian legacies seems to be the main factor that explains the difficulties faced by policy makers to provide water accessibility to low-income families. Pannu (2012) argued that nominations made by the governor may impose limits on the representation of low-income families, who live in unincorporated communities. Also, representatives are appointed by county board supervisors or by federal agencies.

The lack of representation occurs at different sectors of water administration, from the top agencies responsible for planning and supervising to local water districts (Table 4). Despite the crucial role of water in California's development, the governance's design does not allow the citizens to elect their representatives in key positions of the water bureaucracy. In other words, "[...] *there is no voter review or approval of these appointments, nor is there a mechanism for voter-led removal from office. In fact, confirmation is routine, and agency directors and board members are rarely removed from office*" (Pannu, 2012:248).

Table 4 – Water governance in California

Authority	Selection Process	Selector	Area of governance
California Natural Resources Agency	Appointed	Governor	State
Department of Water Resources	Appointed	Governor	State
State Water Resources Central Board	Appointed	Governor	State
Regional Water Quality Boards	Appointed	Governor	Region
California Water Commission	Appointed	Governor	State
Watermaster Service Areas	Petition	15% of landowners	Region
Central Valley Flood Protection Board	Appointed	Governor	Region
Sacramento, San Joaquin Drainage District	Appointed	Governor	Region
California Bay-Delta Authority	Appointed	Various	Regional
Colorado River Board	Appointed	Governor	Interstate
Bay Area Water Agency	Appointed	Governor	Regional
SF Bay Area Water Financing Authority	Appointed	County Boards	Regional

Source: Pannu (2012).

However, a centralized appointment also allows a prevalence of powerful interest groups, such as donors, industrial users, agricultural growers, and real estate developers. Thus, the lack of funding support and organized structure prevents low-income neighborhoods and isolated rural communities from lobbying. Because of its political weakness, the powerless groups drive its demand and efforts to the local water councils. Although the state regulations ensure safe drinking water for all the communities, the ability to charge water districts when they fail to meet the end user varies according to the power of the water district and its legal status (Pannu, 2012).

Also, California has several several public and quasi-public local water districts to provide water in rural areas, which were created to fill the gap between state regulation and the geographic limits of municipal water. State Water Code allows the creation of quasi-public water system with power to define rates, bonding and eminent domain. But these local water systems do not include all residents of their governance area in decision making process, only the main large landowners have power-decision in these water institutions. Farmers who have properties smaller than one acre do not have voting rights in these quasi-public water districts. Besides, several local public or quasi-public water districts are served by large private water systems, which are controlled by large landowners or corporations. These water companies have been working under the framework of the common law of real property, which means that all operation are define to seek profits as any other ordinary business, not as public service.

Therefore, rethinking water policy involves hard negotiations among powerful players as well among other interests located outside of the Californian borders. So, the measures to improve the management efficiency are welcomed, but they are insufficient in removing the obstacles to water access in low-income households. The legal framework must be changed to make the water access in California less unequal. When it comes to other countries, the combination between legacies and globalization has reduced the space for changes in favor of the Californian low-income households.

Conclusion

The land and water access are the keys to reduce the societal inequalities. It is not a novelty. In several countries, the land distribution legacies have been blocking improvements in life, which is a condition of the low-income households. For decades, these poor families have been searching for their survival spaces in the cracks of established economic framework. An inclusive governance is not a magical solution, but it may be the best shot for reducing water inequalities. There is still a long way ahead and political fights must happen before these families gain more decision-making power.

The gold rush was the first step for a intense process of economic growth in California, which explain some patterns of land occupation today. Later, this initial movement of land occupation was deepened by urbanization and irrigated farming systems, which have been contributed to increase land concentration. Both urbanization and agricultural activities depends on water but there is no water for all. As showed, the provision of water has been historically supported by state and federal government and it has been occurred in an unequal basis and oriented by market principles, despite millions of dollars expended by government in subsidies.

Brazil provides a good example to show how land concentration and lack of water access are connected. In Brazil, land concentration was born almost side by side with the country. The Land Law of 1850, which was responsible for regulating land ownership, officiated the *latifundium* and blocked access to land by immigrants and former slaves. In Northeast region, the wet strip of land was already in the large growers hands since the beginning of colonization.

This paper shows how a fragmented governance and lack of social participation are among the reasons for California's unequal access to water. However, in relation to this aspect, Brazil has a quite different experience. Since the 2000s, the federal government has strengthened social participation. Unfortunately, the advances in legislation are not enough to change the historical legacy. Although the basin commissions have allowed social participation, the convergence of interests leads to agreements among large companies, local oligarchies and different levels of government that neutralize advances to reduce inequalities. That does not mean that the participative approach is irrelevant. It is only a starting point and is unable to make changes without other public policies.

In sum, it is important to be clear that State is the only agent able to ensure water access to low-income households. Improvement in social participation by design an inclusive governance it is a starting point but there is no magical solutions. Social participation must be combined essential public policies regarding to accountability and political transparency.

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