

IFF PRESS WATER POLICY SERIES

Water Trading and Global Water Scarcity

International experiences

Edited by
Josefina Maestu



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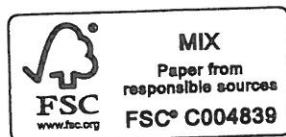
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Part III

Reforms to overcome legal and institutional barriers to trading

Introduction: considering institutional frameworks and legal reforms in trading

Carlos Mario Gómez

Contributions in this part of the book address the reforms required to enable the water trading schemes. The chapters deal with some of the general conclusions stressed in previous parts of the book. One of these is that water markets are not substitutes for good water governance. Water trading is not an alternative when the public sector lacks the will or the ability to define and enforce the norms limiting the use of water and protecting water resources.

Rather than that, synergy and complementarity between water markets and public regulations are pre-conditions for water trading to be able to make a real contribution to the purposes of water policy. Only when the political process comes out with a clear and enforceable decision over where, how much, and for what purpose water can be used can the market be used as an instrument to help the economy in doing the best within the constraints established by water regulations. Water trading is a means to an end. Thus the environmental objectives, the development goals, and the limits resulting from that over the use of water are all policy objectives that need to be decided in the policy arena and cannot be left to the spontaneous outcomes of water trading. In other words, water markets, when they exist, are only one functional mean of the water policy mix and of the complex array of water-governing institutions.

Once the decision to allow for water trading has been taken, finding the right place of water markets and adapting the existing institutional framework becomes the corner-stone of the political reform. This is illustrated in this section of the book by analysing this institutional transition both in Australia and Spain.

Part III is opened by Chapter 15, in which Miguel Solanes frames the way water trading works around the following central argument: the way water markets work depend both on external conditions of the overall economy and on how effective are existing water institutions.

Water trading can probably work only in properly working economic systems. In effect, water markets do not exist in isolation, and water is but one (although a very important one) among the many inputs used in the economy. In the same sense, we cannot expect to have an efficient use of water in an economy which inefficiency is pervasive. When, for instance, the exchange rate is overpriced, this will distort the economy and the use of all natural resources, including water. Interest rates lower than the opportunity cost of capital, artificially maintained by lax monetary policies and increasing external borrowing, will also boost the derived demand of water in the overall economy. Even in the presence of model water institutions, we cannot expect an efficient allocation of water if the agricultural sector is driven by price distorting subsidies. In all these cases, as Solanes shows, water trading can exacerbate the overall economic inefficiency.

On the other hand, the key institutional change to allow for water trading consists in the creation of a well-defined set of property rights. That is to say, a bundle of clearly specified privileges or obligations, belonging to an identifiable owner, protected from expropriation or damage and that can be exchanged with others through voluntary and enforceable agreements. The previous statement makes clear the minimal conditions required. Different from other markets, this can only be achieved by having a capable water administration, able to keep track of water rights and monitor transfer processes. In this sense, Solanes shows why, without the appropriate institutional set-up, markets may become ineffective or, even worse, create new opportunities for rent seeking and free riding leading to further deterioration of the many public goods involved in water management. This is illustrated with a variety of examples and experiences on water trading in different countries.

The complexities of the legal reforms required to allow for effective water trading are illustrated in two separate chapters revising the approach followed in Australia and Spain. The first is developed by Jennifer McKay (Chapter 16) while the second is by Antonio Embid Irujo (Chapter 17). Both chapters are rich in information presenting the options at hand, explaining the factors driving the alternatives chosen, and providing the whole picture on how water legal frameworks have evolved in two distant and different legal frameworks. However, with the benefit of hindsight, the reader is given the opportunity to make a rich comparative exercise from the two apparently opposite experiences.

Both McKay and Embid Irujo show how the emergence of water trading has been driven by similar factors in both cases. In some particular regions, such as the Murray–Darling Basin in Australia and the Mediterranean areas in Spain, water scarcity was perceived as a critical factor limiting economic progress particularly for agriculture and food security. At a certain point, in both cases, it became evident that going along with public works and water supply policies is not sufficient to keep pace with the increasing demand for water in the growing economy. Finally, in both countries, there is a

growing recognition of the limits of the command and control system to cope with the regional and sectoral conflicts derived from water scarcity.

In spite of these similarities, the legal reforms chosen by both countries differ in some significant ways. One key factor explaining the different choices made lies in the evolving balance between the developmental objective of putting water policy at the service of the expansion of the economy, and the environmental objective of preserving and protecting the water sources on the other. Australia, for example, pioneered the adoption of water markets at a time when water was mainly driven by developmental purposes, without too much concern over environmental objectives. Obtaining efficiency gains from water reallocation was at the time at least as important as mobilizing additional water resources into the agricultural sector and the overall economy. At the same time, development objectives in Spain were pursued by pioneering water planning at a river basin scale, but relying mostly on command and control instruments and publicly driven allocation of water in the economy. In contrast to Australia, water markets emerge in Spain as a complement of a complex and well established institutional water management framework. Trading then was designed with strong requirements to consider environmental impacts and even as an instrument to achieve environmental goals.

Both countries differ in how far they go in the set-up of the property rights that can be traded. McKay explains, for instance, how unbundling water from land ownership was essential for the extension and the efficient work of water trading in Australia. In an opposite direction, Embid Irujo explains how attaching water use rights to land ownership, limiting trading to the right of using water and retaining the property of water in public hands is considered as a guarantee that water serves the purposes of water policy. The volume of water to be traded is another substantial difference: Spain limits transfers to actually effectively utilized water. In so doing it follows the American system of water trading, where only historically consumed water can be traded. Australia allows the transfer of non-used-waters, which may have so far resulted in important environmental and third party impacts.

The different story-line of water markets in Australia and Spain give some interesting clues to understand the different policy priorities and the institutional changes promoted in both countries. In this sense, McKay explains that the current political priority in Australia has shifted to a systematic effort to make water trading work for the environment. Apart from guaranteeing minimum flows it requires finding the way to enforce transparent and acceptable water consumption ceilings defined by a water authority. On the other hand, Embid Irujo explains why and how water trading needs to be given space to protect the public interest and environmental standards, with all provisions to continue to be defined and enforced by the institutions already in place. In other words, in Australia the strategy consists of adapting the water markets to work for the environment, while in Spain the

priority consists of protecting the environmental objectives from the outcomes of water trading.

Legal reforms may be necessary for water trading to become not only a means to cope with water scarcity but also an instrument for adaptive risk management. Water trading makes it possible to adapt water allocation to a variable and uncertain water supply, limiting the negative impacts of droughts in the economy. Publicly defined water allocations can potentially be politically acceptable (and even efficient) in normal times, but lack the flexibility required to cope with droughts and with the climate change driven hydrological uncertainty. In Chapter 18 Almudena Gómez-Ramos shows how water trading has the potential to make a real contribution to enhance drought and climate change resilience. To do so she proposes to explore the complexity of improving water allocation in a context of uncertainty. Once the fundamental principles are set, Gómez-Ramos goes into the details of the water institutions in Spain in order to discuss the reforms that would be required in the legal system in order to allow for a better distribution of risk between water users. Apart from trading on current water, the author suggests trading on water options, and illustrates this proposal with an empirical simulation in southern Spain.