

Mainstreaming Water Trading in Water Policy

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Water trading has been proposed and actively promoted by the EU as one of the innovative alternatives to reduce water scarcity and to enhance drought resilience in the European Union (i.e. the Blueprint to Safeguard Europe's Waters prompts the development of guidance on water markets for 2014). Nevertheless, experiences in water trading outside the EU show that these schemes emerged and were originally deployed as instruments for economic development rather than as instruments for water conservation. Environmental constraints (Australia and Chile), only appeared in an advanced stage as part of an effort to manage water problems that might have been caused by water trading itself. Based on that, we aim to explore the potential for water trading in the European Union and to analyse its ability to deliver the expected environmental outcomes in terms of increased market output within the same environmental constraints or, alternatively, to preserve current outputs with lower pressures over the water environment.

At first instance, we explore the opportunities to reallocate water resources within and between districts in the Tagus and Segura interconnected river basins. This analysis is replicated for different constraints, such as environmental flows, different assumptions about transport costs, accounting for water physical returns, etc. Once the opportunities to trade with water have been identified, the relevant question becomes whether the transaction costs are low enough to obtain meaningful water trades, within the range of available opportunities. This is why we explore the alternatives to reduce the transaction cost by improving the technical and institutional conditions under which water trading is allowed. We basically conclude that within the range of current environmental constraints and under prevailing institutional conditions, gains at stake in allowing water trading, even in areas with high water scarcity and widespread water inefficiency, are low.

One way to increase these potential gains consists in reducing transaction costs. Along this same line we explore two sets of complementary strategies to enhance the potential environmental outcomes of fostering water trading. The first one consists in sequencing water policy reform basically by the gradual introduction of trading. The second one consists in packaging trading with other economic policy instruments such as a water price reform, designed to enhance water security in the long term, and a drought insurance scheme intended to reduce groundwater overexploitation in dry periods. Synergies between the three instruments as shown in the paper can be used both to improve the institutional set up, and to reduce transaction costs, as well as to deepen water trading through enhancing its potential to reduce water scarcity.

The empirical analysis is based on the microeconomic models developed for the study of water scarcity and droughts in the Segura and the Tagus interconnected river basins in Spain.