

Converting to Drip:

Interfacing farmers and managers practices in public irrigation schemes

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In a context of increasing pressure over water resources, the productivity and efficiency of large public irrigation systems has long been a concern in countries of the Mediterranean region. National governments, supported by international donors and irrigation engineering companies, are engaged in ambitious policies and investments to convert surface irrigation to pressurized systems. Such investments and policies rest on the assumption that extending the use of drip irrigation in large public irrigation systems will lead to significant efficiency gains and enhance the productivity of irrigated agriculture. This paper compares two Mediterranean experiences of converting large public irrigation systems to pressurized drip irrigation, in situations where access and use of groundwater is limited. In Jordan, the modernization and the pressurization of the Jordan Valley Authority (JVA) irrigation networks took place from the 1980s onwards in a context of reduction of water allocation for planting fruit trees and vegetables. In Morocco, the Food and Agricultural Organization (FAO) financed in the mid 2000s a pilot project to shift from surface to drip irrigation in part of the Doukkala irrigation system, in which field crops dominate. We argue that the relative success of the shift to drip irrigation in the vegetables area of Jordan Valley is closely linked to the nature of the interface between the irrigation agency (the JVA) and the farmers, whereby the latter were already experimenting with on-farm pressurized systems and often had individual on-farm reservoirs. In the Doukkala as well as in the Northern Citrus-planted area of the Jordan Valley, the experience had mixed results as the shift in technology entailed a total reworking of the relationships between the irrigation agency and the farmers. In a context of uncertain water supply (frequency of delivery or limited allocation), converting large public surface systems to drip irrigation is not only about introducing a new technological package; it necessitates a strong support to the farmers to adapt to new conditions of water service, which, in turn, necessitates a renegotiation of the relations between farmers and the irrigation as administration.