

Treating Water in Irrigated Agriculture as an Economic Good

Paper for the workshop 'The Economics of Water and Agriculture' in Rehovot, Israel, December 18-20, 2002.

Dr. Ir. Petra J.G.J. Hellegers, Agricultural Economics Research Institute (LEI), P.O. Box 29703, 2502 LS The Hague, The Netherlands, E-mail: p.j.g.j.hellegers@lei.wag-ur.nl, Phone: 31 317 482295, Fax: 31 317 482745.

Key words: economic efficiency, social equity, sustainability, demand management, policy instruments

Abstract In recent years there has been a growing interest in the idea of treating water as an economic good, as highlighted at several conferences. There is, however, a lot of confusion about the meaning and social consequences of treating 'water in irrigated agriculture as an economic good'. The main aim of this paper is therefore to clarify this. To achieve this aim the difference between the price, value and costs of water will be explained.

Treating 'water as an economic good' means that decisions about water use and allocation among users have to be based on socio-economic trade-off analysis. It related to making the right choices on the basis of various criteria. It is important to note that the economic efficient allocation is not necessary the social optimum one, since other criteria like social equity may play a role. Goals other than economic efficiency are often guiding principles.

This is completely different from water pricing (charging), which can be used as a policy instrument for demand management and cost recovery. It is important to distinguish clearly between valuing and charging for water. Insight into the value of water in alternative uses is important for making the right choices about optimal use and allocation of water as a scarce resource. Charging for water is applying an economic instrument for demand management.

Water pricing does, however, not always function very well and is politically sensitive, since irrigation may reduce food costs and support development in rural areas. These kinds of social concerns explain why the government sometimes subsidises those uses of water that have a high social value, but low ability to pay. It is therefore a challenge to identify the right balance between water treated as an economic and social good. Especially for irrigated agriculture, which faces high opportunity costs if there is competition from urban use, while the ability to pay for water for irrigation purposes is often very low.

Water pricing is, however, only one of the various possible policy instruments that can be used for demand management. The advantages and disadvantages of various alternative policy instruments are discussed in the paper. It becomes clear that well-defined water rights are important and that a mixture of policy instruments (used simultaneously) can be fruitful.