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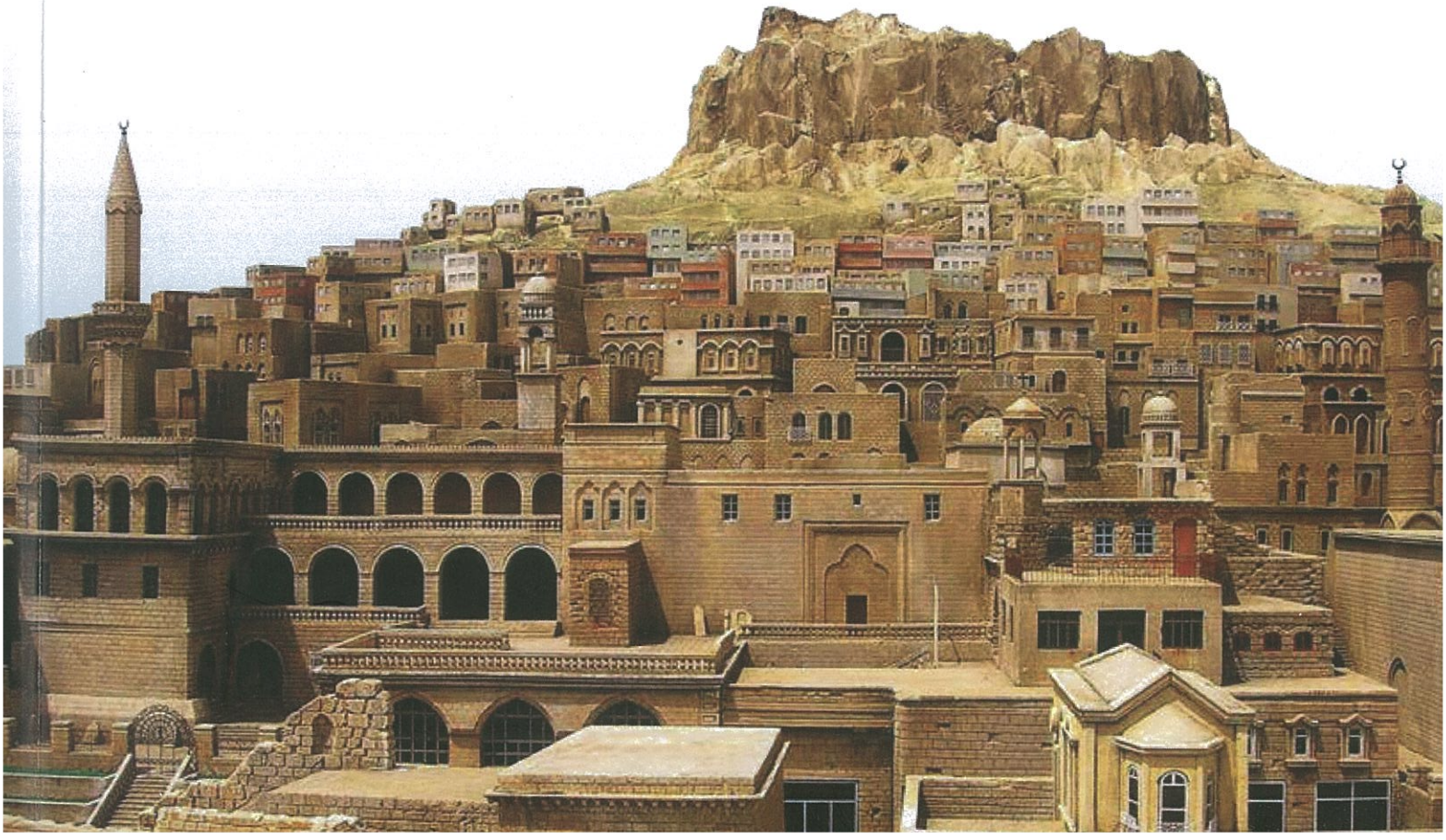
ABSTRACT VOLUME



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RELATIONSHIP BETWEEN AGRICULTURAL LAND SYSTEM AND WATER USE WHEN APPLYING PARTICIPATORY IRRIGATION MANAGEMENT

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ABSTRACT

Identifying water rights is essential to apply participatory irrigation management (PIM) policy. Because water and agricultural land have traditionally had strong relations, we have to clarify the tenure condition of the land where the water rights belong or related to. This paper presents results from our studies on the relationship between agricultural land systems and water use in several countries in Asia and Africa. The results show different situation in the land systems and water use, and their relationship. Land tenure of the study areas is associated with different extent and degree of state, customary, and individual involvement, which characterize *de facto* water rights that farmers hold along with historical backgrounds. By and large, water rights tend to be clearer in developed countries where formal administration of land and water resources is well-established and functional. In developing countries, further institutional arrangements would be required to enable farmers to enjoy water rights and build up their efficient water use and management, but this involves no single prescription and consideration must always be taken into local context that varies in both land and water tenure, as described in this paper. When introducing PIM into irrigation schemes, for instance, they must be well-designed to fit into agricultural land systems and regulation of water rights in the target's area. A prior need is thus to ascertain land management system that secures farmer's rights to make rational/optimal use of irrigation water. This carries important implication for rice irrigation in particular, which requires relatively high and long-term investment for land development and advanced water management.

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