

OVERDEVELOPMENT OF STORED IRRIGATION SYSTEM
IN SOUTH ASIA

Nakamura Hisashi

Ryukoku University, Japan.

The agricultural civilization based on the stored system has been most highly developed in the dry parts of South India and Sri Lanka to such an extent that no region in the rest of the world can compete with it. The nature of the stored irrigation system and its social implication are markedly different from those of the perennial irrigation system.

Where irrigation water is not 'flow' but 'stock' in stored condition, even a common farmer has been able to estimate the amount of water available for the coming agricultural season at a glance. In fact, cultivators in the command area of the stored system in South India and Sri Lanka have organised themselves and held seasonal meetings to decide jointly when and how to use stored water without any transcendental authority. The stored system has been essentially constructed and maintained by the collective effort of the peasant cultivators in the concerned areas, and the irrigation water has been distributed by the village organisation.

Under the conditions where all available water on the land surface is collected and stored in the tank system, over-developed irrigation practices tend to attempt the maximum exploitation of resources, ignoring the non-irrigation sector. If the drought conditions continue to prevail for several consecutive seasons, the water in the stored system is not sufficient for the expanded paddy cultivation and compels the increased population to desert irrigated agriculture in search of an alternative livelihood. The historical records show repeated famine in the region proving evidently the risk of the over-exploitation in the stored system. This may be one of the reasons behind the very high mobility of agricultural population to other regions as migrant labourers.

Hence, it is almost imperative that the stored system should be combined with the non-irrigated cropping and the animal husbandry in the region. These non-irrigated sectors may provide a kind of buffer against adverse rainfall in the catchment area of the stored system. Thus, the path of agricultural development under the stored system is quite different from that of the perennial system where every inch of arable land can be irrigated at least theoretically. There must be another set of theoretical frame of reference to examine the social and economic significance of the stored system. Instead of applying the existing theory of the hydraulic society based on the perennial system, we have to create a new theory through the empirical study on the stored irrigation system.