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Studies of Water Distribution

Although there is some fairly solid, if unrecorded, information on local systems of water distribution in the Helmand, it would be useful to have a series, or even one, of systematic studies completed and written up for the different areas. There are a number of variations on the systems for delivering water to farmers fields and at that most basic level all are controlled locally, if my understanding is correct, by indigenous mirabs or water masters. The variations include: local systems that take water directly from the river using indigenous diversion dams, e.g., Sanguine; systems that take water from government constructed canals but use earlier indigenous systems of ditches, e.g., Shamalan; systems that utilize water from government constructed canals and ditch systems, e.g. Nad-i-Ali and Marja. Until we can clearly define what the water distribution systems are at the local level, where the problems are, we should not expect to be able to come up with any real solution to the problems cited since the 1950's.

I have outlined below a starting point for such a survey of the indigenous water distribution systems of limited areas.

1. Relationships between government water masters' and indigenous water masters (mirabs) as it involves:

(a) Sort of communication link present; content, technical, personal, frequency, cooperative in nature, government agent awareness of functioning of indigenous system.

(b) Sort of cooperation present; basis for amounts of water released from main canals, methods for requesting more water, politics (indigenous vs bureaumracy) of water demand, local labor requirements during shut-down to work on main system.

2. Mapped description of division of authority of mirabs along a particular ditch. In some cases a mirab controls the water, or the land watered by a complete ditch, e.g., North Shamalan, Basharan ditch. In some cases there may be a number of mirabs for a particularly long and complex ditch, e.g., Central Shamalan, Khalaj ditch. Mapping the system of mirabs would be a start. Then some information should

be collected on origins of this system of division. The mapping could be related to other items of information on age of area being farmed, relation to ditch system, relation to cadastral survey and Khan regions of power, and to land classifications, relative sizes of land parcels and land use, e.g., vineyard and orchard area vs wheat-cotton-corn growing areas.

3. Politics of water distribution. This would include relationship between roles of Malik (village headman, government recognized) mirab and Khan (larger landowner in area with political power). Local relationships between Khans. Local relationships between mirabs along a particular ditch. Systems for dividing water among the mirab districts. Problems and hostilities resulting from system.

4. Details of functioning system:

(a) Role of ditch runner (under mirab) and problems. Who are the ditch runners and exactly what do they do. Their relations with the farmers.

(b) Exactly how does the "every man in his turn" system work. Problems and variations. Exactly how structured is water distribution?

(c) System of payment of mirab services including amount, timing, problems of collection, actions taken in case of non-payment. How structured is this system?

(d) System of maintenance of sections of ditches. Who works and how is it organized? Who defines technical ditch problems requiring work? Organization of work parties.

5. Awareness of Islamic definitions of water and rights of distribution and how this awareness is used in settling water disputes at any level of the system. What is the system for settling water disputes and who is responsible?

I have outlined what I see as the major points tobbe studied in a water distribution system survey. Some elements have probably been left out. As a survey gets into the field, if it is as flexable as this type survey would have to be, new unforeseen factors could be added and probed. Such a survey would be useful as the starting point for any major activity in the area of water distribution.