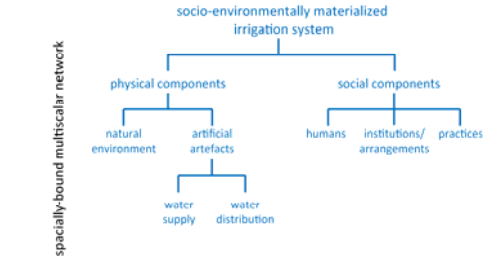


Small-Scale Irrigation Self-Governance in the Pamirs, Tajikistan

Andrei Doerre

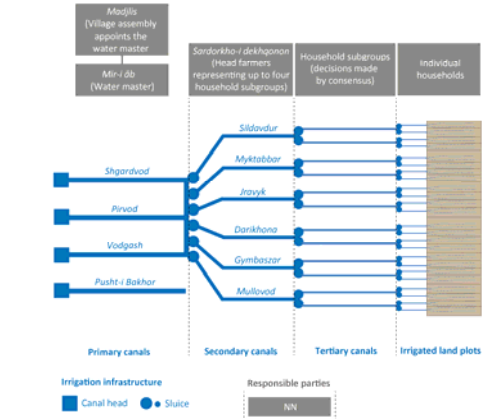
In the arid Pamirs, meeting food needs is an ongoing struggle due to irrigation water scarcity. The paper presents the case of a self-organized irrigation system to explore typical physical and social components of such local *hydrosocial arrangements* and the interactions between them. The questions are: How do small-scale irrigation arrangements work and change under shifting conditions? Which factors lead to success/failure?



Methods

- Qualitative research tools (such as observation of maintenance and irrigation works, guided interviews, oral history, and mapping) applied during empirical field research campaigns

Organization of Shirgin’s irrigation system



Results

- social factors have a more direct impact on irrigation arrangements than the deferred impacts of environmental change
- communal decision-making, collaborative action, and burden sharing lead to a strong sense of community ownership
- local knowledge, community ownership, and flexibility seem to be key factors in the success of such locally contextualized irrigation arrangements

Political actors and development practitioners often **lack detailed knowledge about** well-functioning **local resource governance systems**, but external interventions applied without that knowledge **risk destroying effective systems** that are already in place.

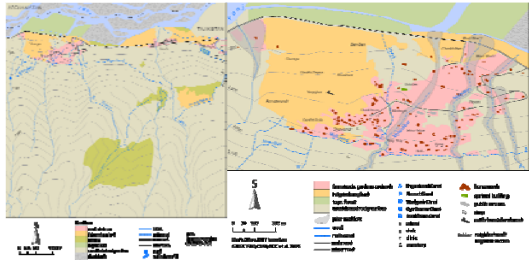


Dörre A. & C. Goibnazarov, 2018: Small-Scale Irrigation Self-Governance in a Mountain Region of Tajikistan. *Mountain Research and Development* 38(2): 104-113. DOI: 10.1659/MRD-JOURNAL-D-17-00085.1

Map of the study area (Dörre 2017)



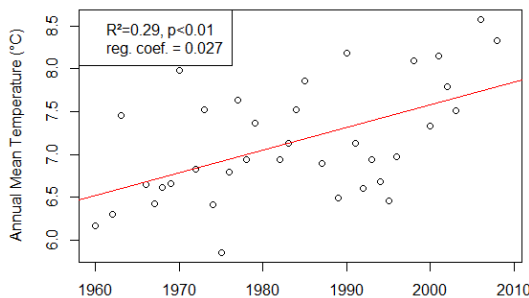
Maps of the water supply system, and the canals and land use of Shirgin (Dörre 2017)



Irrigation schedule for the early growing season

Group	Subgroup	Time slots, day irrigation	Time slots, night irrigation	Start of irrigation rounds
A	1	7-9 AM	7-9 PM	April 17, 19, 21, 23, 25, 27, 29 May 1, 3, 5, 7, 9, 11, 15, 17, 19
	2	9-11 AM	9-11 PM	
	3	11 AM-1 PM	11 PM-1 AM	
	4	1-3 PM	1-3 AM	
	5	3-5 PM	3-5 AM	
	6	5-7 PM	5-7 AM	
B	1	7-9 AM	7-9 PM	April 18, 20, 22, 24, 26, 28, 30 May 2, 4, 6, 8, 10, 12, 14, 16, 18, 20
	2	9-11 AM	9-11 PM	
	3	11 AM-1 PM	11 PM-1 AM	
	4	1-3 PM	1-3 AM	
	5	3-5 PM	3-5 AM	
	6	5-7 PM	5-7 AM	

Development of the annual mean temperature of the station Ishkashim (1960-2009) (Vanselow 2016)



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