

Center for Community-Based Resource Management (CBRM)

Natural Resources Institute, University of Manitoba

CBRM Database

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Case Study Name:	The river basin game as a tool for collective water management at community level in South Africa		
Authors:	M.S. Magombeyi, D. Rollin, B. Lankford		
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Region:	Africa – South of the Sahara		
Country:	South Africa		
Ecosystem Type:	Seasonal dry spells, high rainfall		
Social Characteristics:	community bordering protected areas		
Scale of Study:	Community, district, regional		
Resource Type:	Wildlife, agriculture, surface water, ground water		
Type of Initiative:	Research driven project		
Community-Based Work:	Resource management, community-based resolutions		
Keywords:	Olifants, conflict resolution, irrigation, river basin game, water equity, downstream user, upstream user, subsistence		

Summary:

Water scarcity in semi-arid catchments presents challenges on achieving equitable sharing of available water resources and avoiding social tensions among small-holder farmers. This paper explores the implementation of a river basin game as a tool to facilitate negotiations and rules of equal access among upstream and downstream irrigation water users in Ga-Sekororo, Olifants river basin in South Africa. The various stages of the game playing methodology are presented in a progressive manner and the outcomes are discussed. Through the application of this game, farmers were able to better relate to their catchment and accepted the board's schematic representation of their reality. They were able to understand top-tail inequities of water supply and to appreciate that solutions lie in the community. The coming together of the small-holder farmers to share knowledge and set agreements on equitable water sharing results in higher benefits such as community harmony, transparency, acceptance of operating rules and improved knowledge to the community as a whole. The collective negotiation exercise produces more acceptable water allocation rules, thereby improving the security of water supply to the irrigation schemes. The paper concludes that local level management of tensions and conflicts through participation as facilitated by the river basin games can be sustainable provided there is proactive support from higher level institutions such as water committees, government and research.