

## WAT-A GAME: A tool for participatory natural resource management planning at landscape scale

Nile Basin Development Challenge (NBDC) experience in Ethiopia shows that natural resource management (NRM) requires multi-sector integration and the strong involvement of farmers to identify problems and implement solutions. However, research shows there is a 'disconnect' between farmers and decision makers in their perceptions of NRM problems and ideas for solutions. Tools for better communication and joint understanding among different actors are essential in development planning processes. This brief showcases one such tool – WAT-A-GAME – that has been tested in Ethiopia.



### Participation and land degradation

Land degradation is a major cause of Ethiopia's low and declining agricultural productivity, persistent food insecurity, and rural poverty. Ethiopia is also susceptible to natural disasters and weather-related shocks and climate change that exacerbate this situation, increase water stress and further reduce agricultural productivity.

To counter these, the Ethiopian Government works with development partners to rehabilitate rural land, using 'food for work' programs to exchange food aid for work by community members in drought-affected areas. Large scale interventions like PSNP (Productive Safety Net Program), MERET (Managing Environmental Resources to Enable Transition to more sustainable livelihoods program) and SLM (Sustainable Land Management program) promote community-based and participatory watershed management solutions.

Early successes include increased forest cover, increased availability of livestock feed, soil and water conservation efforts and restored agricultural productivity.

Lessons from these efforts show that success in land rehabilitation has resulted from strong commitment to local level participatory planning in which smallholder associations and community leaders are seen as key stakeholders.

Several tools can be used to support participatory planning approaches. This brief introduces the WAT-A-GAME tool used by the Nile Basin Development Challenge (NBDC) in Fogera, Ethiopia.

It also reports on the outcomes of a February 2013 'learning event' with national partners to present and discuss the tool and its potential to support landscape-scale strategy development for integrated NRM.

### The WAT-A-GAME tool

Developed by the French National Research Institute of Science and Technology for Environment and Agriculture (IRSTEA - [www.irstea.fr](http://www.irstea.fr)) and the French Agricultural Research Centre for International Development (CIRAD - [www.cirad.fr](http://www.cirad.fr)), WAT-A-GAME (WAG - <http://sites.google.com/site/waghistoriy>) is a toolkit and method to design participatory simulations (i.e. role playing games) for water management, policy design and education.

Through role-playing, it shows participants how water moves within a landscape, how it is used, polluted, transformed and shared by actors and any trade-offs encountered. WAG is designed for use by a range of stakeholders, including farmers, scientists, experts, administrators and policy makers.

In 2012, WAG was deployed in 5 African countries to test integrated natural resource management strategies as part of the EU-funded AFROMAISON project ([www.afromaison.net](http://www.afromaison.net)). The NBDC was a partner in one of the case studies in Ethiopia and used the tool in Fogera to simulate key rainwater management issues including water availability, run-off, soil erosion and the impact of different land-use practices on livelihoods.

## WAT-A-GAME in Fogera

As mentioned above, progress on NRM issues are often held back by a 'disconnect' between farmers and decision makers. WAG was used in Fogera to try to re-connect these groups.

To highlight the different perspectives, the first WAG workshop in April 2012 brought community representatives together with decision makers and experts.

The groups worked separately to identify and prioritize key issues, identify technical, institutional and policy interventions to address these issues, and to incorporate these actions into an integrated strategy. They then presented their strategies to one another. This led to knowledge sharing and constructive dialogue about similarities and differences, the reasons for these and how they might be reconciled.

The game and subsequent discussions raised awareness about upstream and downstream linkages and landscape interconnectedness. Regional and district staff learned about farmers' knowledge and priorities, and vice versa.

### The learning event

To take stock of the 2012 experiences, the learning event in February 2013 convened an expert group in Addis Ababa to play the game and assess its potential wider usefulness.

Participants played the game using two similar game boards designed for the Fogera landscape. Seven volunteer participants from each group represented the farmers living in the highland, mid-land and wetland areas and also a landless farmer.

After the learning event, participants raised many questions: Was the tool new? Does 'landscape' mean the same as 'watershed', were users surveyed before and after they played the game, what time framework is involved in playing the game?

Participants gave constructive feedback on the game itself and how to make it useful for other organizations and experts working in the area of NRM. All agreed on the need to simplify the tool. They also suggested that community level representatives should be grouped by

gender and should develop the strategy separately to ensure that women's views were recognized.

More generally, playing the game stimulated a discussion around different approaches towards integrated planning of NRM used in Ethiopia. It seems that most of the approaches in the past lacked genuine community participation and they failed to create a sense of ownership. At the learning event it was agreed that the WAG tool could usefully complement ongoing watershed management planning and implementation. Participants felt that the role playing element would help communities better understand their problems, from household to landscape levels, and give them an opportunity to identify potential solutions from their own perspectives.

Some participants showed interest in taking and adapting the tool to their own organizations and programs. However, a simple set of guidelines is needed to explain how to design the game board for a specific landscape and then to use the game effectively to reflect and address different actors' views. This will help the scaling up of the tool by other organizations. In depth training is also needed for organizations that are interested to use it in their project sites with necessary documents and materials.

### List of organizations represented

- Ministry of Agriculture
- Ethiopian Institute of Agricultural Research
- OXFAM - African Climate Change Resilience Alliance
- Forum for Environment Ethiopia
- Ethio Wetlands and Natural Resources Association
- Horn of Africa Regional Environment Centre
- Ethiopian Evangelical Church Mechane Yesus
- Ethiopian Rainwater Harvesting Association
- World Vision Ethiopia
- HUNDEE- Oromo Grassroots Development Initiative
- Fogera Woreda Livestock Agency
- SOS Sahel Ethiopia

The learning event was organized by the NBDC as part of the National Platform on Land and Water Management Thematic Working Groups on Institutional Innovation and on Ecosystem Resilience and Climate Change.



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The Nile Basin Development Challenge (NBDC) is funded by the CGIAR Challenge Program on Water and Food (CPWF). It aims to improve the resilience of rural livelihoods in the Ethiopian highlands through a landscape approach to rainwater management. It comprises five linked projects examining: 1) learning from the past; 2) developing integrated rainwater management strategies; 3) targeting and scaling out of rainwater management innovations; 4) assessing and anticipating the consequences of innovation in rainwater management systems; and 5) catalysing platforms for learning, communication and coordination across the projects.

The NBDC is implemented by a consortium comprising the International Livestock Research Institute, International Water Management Institute, World Agroforestry Centre, Overseas Development Institute, Nile Basin Initiative, Stockholm Environment Institute, Ethiopian Economic Policy Research Institute, Catholic Relief Services–Ethiopia, Oromia Regional Agricultural Research Institute, Amhara Regional Agricultural Research Institute, Bahir Dar University, Ambo University, Wollega University, the Ministry of Agriculture and the Ministry of Water and Energy.

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