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CGIAR Research Program on Water, Land and Ecosystems

WLE Volta and Niger Focal Region Workshop

WLE Volta and Niger Focal Region Workshop

May 28-30, 2013, Accra, Ghana

WLE's regional focal design workshop, held in Accra, Ghana, 28-30 May 2013, was the first step in developing a WLE Focal Region Initiative in the Volta and Niger basins. This initial workshop had as its overall purpose to introduce WLE and equip participants with sufficient understanding of WLE and the focal region process to be able to promote the initiative with research and boundary partners in the region, as well as identify the initial scope of the regional program and initiate its roll out process.

Objectives

- Ensure the relevance of WLE research within the regional context, giving active recognition to the role of region-based actors in informing and identifying development priorities;
- Link research outputs and outcomes to relevant development processes in regions and so establish integrated Theories of Change (ToC) at the regional or landscape scale;
- Define the contribution of WLE to broader regional development trajectories and outcomes;
- Define targets where change is expected to come about, who can assist in this process and how;
- Establish a dynamic environment where a wide range of partners are involved in the proposed research for development from the outset, respecting the fluid nature of region-based networks, decision making process and power relationships.

Preparation

The objectives for the workshop were included in a concept note on 'WLE Regional Strategy and Prioritization', which was shared with invited participants ahead of the workshop. The facilitator translated these objectives into a set of expectations from the workshop¹. Other materials prepared in advance included a draft synthesis report on context and past and ongoing work undertaken in the Volta region by WLE partner organizations², prepared by Martin van Brakel and translated into French by Dominique Juchault-Manley. A set of SRP posters was prepared in advance too. A full list of workshop documentation is attached.

Organizers

The workshop was convened by Martin van Brakel and colleagues in the WLE operations team, in close cooperation with Olufunke Cofie, Basin Leader of the CPWF Volta Basin Development Challenge, and Tim Williams, Director Africa, IWMI. Invaluable communications support was provided by Michael Victor and Martina Mascarenhas, WLE communications team, and Thor Windham-Wright, communications & research uptake coordinator, IWMI-Ghana, who also acted as rapporteur for this workshop. Jonas Mensah, freelance translator, Interlingua Communications Consultancy Ltd., reported on the workshop in French. The workshop was facilitated by Andrew Bartlett. Lorriene Ofori (IWMI-Ghana), Himani Elangasinghe and Mala Ranawake (IWMI-HQ Colombo) provided indispensable administrative and logistics support, without which the workshop could not have happened.

The venue chosen for the workshop was the Best Western Premier Accra Airport Hotel. An agenda of the workshop 'as it happened' and list of participants are annexed.

Workshop communications

During the workshop simultaneous translation from English into French and vice-versa was provided by Interlingua Communications Consultancy Ltd. Tim Woods, GreenInk, participated and wrote three short articles about the workshop.

¹ The objectives and expectations for this workshop were highly ambitious, something that the facilitator has written about in a piece for the WLE blog: <http://wle.cgiar.org/blogs/2013/06/20/how-can-wle-add-value-to-what-is-happening-in-the-real-world/>

² This synthesis is mainly based on work done by the CPWF in its first phase, and to a lesser extent work done by IWMI. The draft synthesis does not claim to be comprehensive.

Day 1 – 28 May 2013

Session 1 – opening

The workshop was opened by Tim Williams, Director, IMWI Africa who welcomed the participants on behalf the host organization, IWMI. Olufunke Cofie, CPWF Basin Leader for the Volta offered a prayer in accordance with the local customs in the host country. Participants then briefly introduced themselves.

Andrew Noble, WLE Program Director, provided an overview of WLE in order for participants to get acquainted with the program. Andrew Bartlett, in the capacity of facilitator, presented and explained the workshop objectives and process. He asked a series of questions to build a picture of experience and expertise amongst participant in order to getting to know each other.

Session 2 - Volta Basin Context

Expectations from the session: *By the end of this session, regional experts will have ensured that the WLE research program is based on an understanding of the regional context that is both accurate and comprehensive, and which views development opportunities through a resilience lens.*

Background

Martin van Brakel presented some background information on Volta, based on past work done in the region by WLE partner organizations. The purpose of this presentation was to outline the particular risks and opportunities in the Volta Basin, as described in the draft Volta synthesis report³. Participants were asked what they considered to be regional priorities and what in their view was missing from this initial WLE analysis. About one-third of the participants indicated that they did have a look at the synthesis report ahead of the workshop. The report was generally regarded as informative, giving a fairly accurate account of the development challenges in the region.

The presentation however did generate some discussion on the tradeoff between scale and levels of data aggregation, and the value of the presented information. The data presented were mostly aggregated by district, which was considered an overly simplistic representation. It was agreed that greater disaggregation of data was needed. For example, poverty is affected by factors such as gender and age, not by district boundaries. In the words of one participant: “When determining research priorities, we need to look at who is benefiting from resources, who is better at managing resources”. The consensus among participants was that collecting and analyzing data at relevant levels of detail is important, and should be taken into consideration as a potential area for contribution by the WLE program.

Risks and opportunities

Olufunke Cofie and Fabrice DeClerck focused on the risks and opportunities for change in the Volta basin. They identified six important basin-specific drivers: (1) Climate variability, (2) Demographic pressure, (3) Land pressure, (4) Increasing energy demands, (5) Trans-boundary issues and (6) Political-Economic conditions. Possible responses to these drivers are agricultural intensification including peri-urban wastewater agriculture, agricultural ‘extensification’, ecosystem services enhancement, migration, trans-boundary agreements and regional integration. Some opportunities identified can build on on-going initiatives by CPWF, WASCAL, other CRPs and regional initiatives, and include the establishment of growth poles, agricultural plans, water policies, the ECOWAS water framework directory and Volta Basin Authority water charter and Master Plan. Emphasis was given to agricultural water management (AWM) solutions such as motorized pumps for smallholders, which are affordable and in high demand. Possible research areas include research into more efficient dry season production and market opportunities and value chains for small-scale producers including crops, livestock and fish. It was also emphasized that agriculture needs to be thought of in terms of its contribution to environmental protection rather than in terms of environmental degradation.

The opportunities and risks were discussed in groups, each of which presented 3 opportunities and 3 risks:

³ Available at <http://wle.cgiar.org/focal-regions/west-africa/>

Opportunities identified include the existence of regional institutions and national plans for investment in agriculture (in line with CAADP), the availability of plenty of natural resources and technologies, practices and knowledge, development of surface-, ground- and rainwater resources for agriculture, population and economic growth, particularly the increasing young and urban and well-endowed population, better soil, land, and ecosystem management to capture water, reduce flood risk and increase production potential, changes in livelihood opportunities, better education and technological advances (alternative energy, dams for energy & agriculture), improved ICT and infrastructure, regional integration (ECOWAS), more international cooperation and advancements in democracy and anti-corruption.

Risks identified include the disconnect between formal and informal institutions, institutional weakening due to high rotation and loss of knowledge (large percentage of youth), Francophone / Anglophone language barriers, business as usual (lack of information, lack of transdisciplinarity, lack of knowledge of tipping points), poor governance in natural resource management, continuing degradation of natural resources due to demographic pressures, population growth and migration (rural–urban; north–south) including outmigration of youth and males leaving the aged and women, productivity growth not keeping pace with population growth and changing dynamics of agriculture due to urbanization, consumer preferences (e.g. Nigeria is number 1 importer of rice globally!), loss of livelihoods and environmental services as a result of dam construction and progressing climate change, increasing variability of aridity and water availability, flooding tied to heavy rains, loss of top soil, dry spells and droughts, extreme events, food insecurity, corruption, political instability and conflict, and focusing too much on the future without solving problems of today.

Agricultural investment plans

Tim Williams provided a general overview of the development process, status and implementation mechanisms of the Comprehensive Africa Agriculture Development Programme (CAADP). Resource mobilization for the implementation of the Ghana CAADP country compact is in progress – over USD 1.8 billion has been mobilized from various sources. The implementation mechanism of the compacts is through national Government, non-state actors, research institutions and development partners. There are good opportunities for engagement through demand-led research. The Ghana Programme for sustainable management of land & environment is considered very important.

Agricultural investment plans of specific countries in the region were presented by Saa Dittoh (Ghana), Seydina Oumar Traore (Burkina Faso), Moussa Amadou (Niger), Adama Sangare (Mali) and Ibraheem Olomoda (Nigeria). The purpose of these presentations was to provide context and look for entry points for WLE engagement within the framework of these plans. A question and answer session about the national and regional investment plans were held in plenary but the session was inconclusive in terms of suggesting entry points for WLE engagement.

Session 2 was concluded with a SRP bus-stop, in which regional experts were introduced to the work of WLE.

Day 2 – 29 May 2013

Session 3 - Avenues for WLE activity in the Volta Basin

Expectations from the session: *By the end of this session, regional experts will have ensured that WLE has a theory of change as a basis for its work in the region that is both integrated and focused, and which takes account of the need for equitable benefits.*

Cross-cutting issue on gender and equity

Nicoline de Haan presented the rationale and objectives of the cross-cutting WLE working group on Gender, Poverty and Institutions (GPI). The work of GPI is founded in the evidence and reality that agriculture is a social process, mediated by people and by the demands they place on it. Gender will be a key issue in developing the WLE research program for the Volta and Niger basins. Nicoline reminded participants that women account for about half of the agricultural labor force and produce around 70% of the food crops within the Volta, but women often have no voice in institutions that govern natural resources. Outmigration of men to urban areas or beyond the basin leaves a

management void. Farmer-based organizations, which are being promoted under agricultural policies in Ghana, offer an opportunity for women to benefit more from agriculture. Women themselves are also creating opportunities to improve their situation. For example, they are using small-scale irrigation to grow fruit and vegetables, which are increasingly in demand in Ghana as incomes rise⁴. Nicoline urged the participants to learn from these examples. “Women can be an incredible force in what we are trying to do; why don’t we tap into that?”

Outcome statements

Given the available time and number of people involved in the workshop it was not realistic to get participants to produce their own outcome statements. Based on the session on risks and opportunities on day one a set of predetermined outcomes was formulated. Participants selected a shortlist of preferred outcomes from these, and discussed and refined the selected statements in groups. The groups discussed indicators, targets (beneficiaries), thresholds, barriers and risks to achieving the envisaged outcomes around a set of pertinent questions: (1) Who will benefit if the outcome is delivered? (2) What are the major barriers or risks that could prevent delivery of the outcome? (3) What is the most important research that needs to be carried out to support the delivery of this outcome?

(4) Identify the key organisations that are already carrying out relevant research and development activities, or which have the mandate and potential to do it.

The final set of outcome statements were as follows:

- Land rehabilitated and degradation avoided in areas vulnerable to climatic and human pressure
- Sustainable crop/livestock systems under climate change
- Relevant infrastructure (physical, institutional, social and financial) is in place that enables producers (in broad sense, along the value chain) to cope with the risks of unexpected events related to climate change
- Institutional systems for governance of natural resources have access to data and analysis that enables them to respond to future challenges, including both environmental and economic shocks.
- Sustainable increases in land and water productivity to meet future food demands

Opportunities for WLE engagement

The discussions yielded a number of insights on a potential focus for the WLE regional strategy, and ideas on ‘low-hanging fruits’ for the Program to achieve within a three-year timespan in the following areas:

- a. Institutional analysis was considered a niche for WLE: Participants in the group working on outcome statement “Sustainable increases in land and water productivity to meet future food demands” for example observed that many organizations are already working on this issue in the Volta basin, but without any coordination between them.
- b. Evidence based approaches – there is need for better guidelines and research results. Currently there are large information gaps and existing information is largely outdated. There is a strong need to get the ‘right’ information, right type of criteria for sustainable development of water resources. For example in current plans for hydropower development no consideration is being given to where to put the dams. A recommendation coming out of past CPWF research is that the focus on small dams should be on how to better manage them for multiple uses. Several things are being done on the improvement of agricultural services.

⁴ Antwi (2013) ‘Gender issues in the Volta: women’s livelihoods in the region’; copies of which were handed out at the workshop

- c. There is need and scope for continued research on drought.
- d. Natural regeneration is a key component in re-greening the Sahel, which is a major initiative in the Niger basin. Specific 'sought after' ecosystem services are conservation, ecosystem restoration, halting desertification, and mitigation of flood and siltation. It was observed that flood is a symptom, not a problem. The White Volta is completely silted. Research on environmental flow requirements, which is about setting sustainable development thresholds, has not been done in West Africa. It was also observed that where there is high demand on crops there is less focus on ES.
- e. Groundwater is very important but we don't know much about it.
- f. Land grabbing is a critical area – how are basins tackling the problem? Rich investors do not realize there is a lack of water. How can we get them to consider if there is water to make investment viable? Countries need help to do that kind of questioning.
- g. The impact of variability remains also an important research priority.

Potential **constraints, pitfalls and unresolved issues** for WLE engagement were also identified:

- What is the added value of WLE given that the French and Dutch do a lot already (e.g. PIREN group)
- We need to investigate what is already going on in the basin
- How do we go from data to livelihoods?
- • How do we focus on potential location: the fewer the sites / location the better.

Low-hanging fruits

'Big ideas', to be achieved within a three-year timespan by the Program, were put forward by the groups. Each group made a 'sales pitch' for their big idea.

Group 1 - Economics of land degradation with focus on semi-arid and arid zones.

Group 2 - Assessing viability and sustainability, and environmental impacts of crop/livestock/fish systems, in a cycle, supported by water and land management practices. *There was some debate on whether this would cost a lot or be achieved without great expense. Also, there was the question of environmental costs not being integrated in the costs of food. The integration of all of these was seen as key.*

Group 3 - Full 24 hour information services on all aspects of agriculture via mobile phones across Africa, in partnership with the private sector.

Group 4 - Integrated data collection and sharing system, for use in many things including for example an early warning system. *The big question is how to sustain it? It's difficult to campaign for something like this within a government.*

Group 5 - Sustainable increases in land and water productivity. It requires a single, free, open access, compilation (portal) of all data available. *This implies a need for WLE to be the turn-to reference group for expertise and advice.*

Day 3 – 30 May 2013

Session 4 - Niger Basin opportunities

Expectations from the session: *By the end of this session, regional experts will have provided WLE with sufficient information and ideas to enable the preparation of a first draft of impact pathways for the Niger Basin.*

Andrew Ogilvie presented an overview of the Niger basin. He explained that rainfed water productivity in the basin is difficult to assess. At 800 mm of annual rainfall water is rarely limiting, but nutrients and

risk reduction are essential. Irrigated systems performance is low, with oversupply and resultant water stagnation during the wet season, and both over- and undersupply occurring during the dry season. The fundamental problem in the region is at the institutional level. Institutional analysis done under the CPWF Niger basin focal project revealed the plurality of authority structures and rules which creates conflict and confusion, notably in land tenure and water access.

Ibraheem Olomoda's presentation on the work of the Niger Basin Authority brought also a number of interesting facts to light. Olomoda cited a recent estimate (2012) putting the population in the Niger at ca. 130 million. The 9 riparian states in the basin are: Benin (2%), Burkina Faso (4%), Cameroun (4%), Côte d'Ivoire (1%), Guinea (6%), Mali (26%), Niger (23%), Nigeria (30%) and Chad (1%).. A number of large initiatives are deployed in the basin, amongst which the Sustainable Development Action Plan (SDAP) 2008 – 2027, which counts 639 actions and projects, and the 500 million USD World Bank Water Resources Development and Sustainable Ecosystem Management Program. Plans are in place to produce 2.73 million tons of rice by 2020, which would cover 69% of the needs of the population in the intervention area, and 29% of the total basin need. Hydropower is also important in the basin with Nigeria being a major source of hydropower.

Key issues affecting the Niger basin were explored in a panel discussion with seven selected experts from Niger Basin. The Panel members were Adama Sangare, Bakary Kone, Ibraheem Olomoda, Harouna Karambiri, Mossi Maiga Illiassou, Boubacar Barry and Moussa Amadou. The regional experts responded to questions from the WLE researchers. From this discussion it transpired that there are lots of synergies between the key issues in the Volta and Niger. Problems are similar between Niger and Volta, but the magnitude of problems is different. Burkina Faso and Mali are situated in the two basins and the Volta Basin Authority and Niger Basin Authority work in close cooperation.

The experts made reference to key issues and thematic priorities in the two basins:

- Re-vegetation of the Sahel through forest plantation and irrigation. Increased vegetation cover to conserve soil and restore degraded soils.
- Construction of small reservoirs to enhance water availability in the basins and combat desertification and river siltation. A challenge is how to mobilize finance for the construction of reservoirs. For example the political crisis in Mali poses problems for financing such projects.
- Niger Basin Authority has identified ecosystems that need to be maintained as protected areas given their ecological value, including aquatic resources.
- There is a need for tools for better small reservoir management for multiple uses.
- Outdated information – data on land use and tenure and floods and siltation have been generated in the eighties and do not reflect current realities.
- The Office du Niger foresees rice production as an opportunity to improve food security. Uniform and equitable development in the basin would allow sharing the benefits from the creation of the food basket of the region.
- Institutional analysis is crucial, and needs the development of suitable guidelines; adaptive management is necessary for the two basins since they have almost the same intrinsic characteristics - rainfall, seasons and climate change. Environmental dynamics are not well understood. It is necessary to put emphasis on improving the use of groundwater. Surface water and groundwater are not quantified.
- There are still many gender issues to be addressed. The WLE program can support to the direct involvement of women in irrigated areas.
- There is a need to identify problems related to religion and culture in West Africa. In Nigeria, there are initiatives for small farmers, women's groups benefiting from micro-credit, and in the context of women's empowerment.

The groups then proceeded to determine the geographic focus, thematic priorities and added value WLE could offer to research on the Niger. This provided an opportunity to further explore and utilize ideas and information from the panel discussion. Outcomes of this brainstorming session are annexed.

Session 5 - Moving ahead

Expectations from the session: *By the end of this session, a network of actual and prospective partners for WLE in the Volta and Niger Basins will have been agreed, and mechanisms for further engagement identified.*

The planned discussion on networking, partnerships and coordination was dropped in favor of adding a brainstorming session on the Volta, similar to the session on the Niger. Outcomes of this brainstorming session are annexed.

Andrew Noble presented an outline of the envisaged WLE regional focal program development process. The envisaged roll-out strategy foresees in the establishment of a WLE Regional Focal team that would include representatives from all SRPs, ESS&R and GPI. The roll-out strategy foresees in the following stages:

- Phase 1 – Baseline & consultation workshop
- Phase 2 – concept note design
- Phase 3 – develop focal region business plan
- Phase 4 – inception period
- Phase 5 – three year program

Summary of key outcomes

An important conclusion drawn from the consultation was that the problems are similar between Niger and Volta. This implies that we should be able to apply any WLE strategy (to be) developed in the Volta also in the Niger. Based on this conclusion the participants decided that one regional advisory committee could be established for WLE's engagement in the region. A supporting argument for this was also that four of the countries in the region are situated in both basins, making a distinction along basin boundaries rather arbitrary.

It was however also concluded that the magnitude of problems is different between the Niger and Volta. The pressure on resources is greater in the Niger as a whole. There is a need for focus because the challenges are different for upper, middle and lower Niger. The water challenges are greatest in the middle but currently nobody wants to address these due to security problems related to the conflict in Mali. There was however clear consensus amongst participants that in the Niger the geographic focus should be on the middle section, particularly the Inner delta.

A persistent problem that was mentioned several times during the workshop was the lack of up-to-date data, information and knowledge. This signals the need for WLE to do a gap analysis and facilitate the 'right' info, right type of criteria for sustainable development, and its important potential role to contribute to local and regional capacity building. WASCAL dedicates significant effort to capacity building, and cooperation between WLE and WASCAL in this area would contribute to WLE mandate of capacity building and would be an opportunity to build stronger relations with tertiary education institutions in the region. This would also allow for the selection of promising PhD students to work on research projects of WLE and the development of joint research projects. 2iE has also a capacity building mandate and should also be considered a potential partner for capacity building in the region.

At day 3 a nomination committee was established amongst regional experts led by Boubacar Barry (WASCAL), with the objective to form a regional advisory committee that would guide future WLE activities in the region, to be in place within about 4 months from this workshop. The Regional

Advisory Committee should have an MC and SC member assigned to it in order to ensure continuity and transparency. As a next step Terms of Reference should be established for this committee.

The following members have been nominated for the Advisory Committee:

1. VBA : Dr Charles Biney (Executive Director)
2. NBA : Dr Ibraheem Olomoda (Senior Hydrologist)
3. CORAF/WECARD: Dr. Harold ROY-Macauley (Executive Director)
4. ECOWAS/WRCC: Innocent Ouedraogo (Director)
5. WASCAL (Dr. Boubacar Barry IWMI/WASCAL Coordinator WASCAL Competence Centre)
6. GWP/West Africa: Prof. Abel Afouda (President)
7. WSA (water and sanitation in Africa based in Ouaga) Mr. Issa Doukoure (Executive Director)
8. ACMAD: Mr. Alhassan Diallo (Director General)
9. ARID: Moussa Amadou (President)
10. WRC: Ben Ampomah (Director)
11. SAFGRAD: Ahmed Elmekass (AU-SAFGRAD Coordinator)
12. World Bank: David Casanova

Annex 1 – workshop documentation

CPWF Project Reports and Working Papers

Abaidoo, R.C., Keraita, B., Amoah, P., Drechsel, P., Bakang, J., Kranjac-Berisavljevic, G., Konradsen, F., Agyekum, W., Klutse, A. 2009. Safeguarding Public Health Concerns, Livelihoods and Productivity in Wastewater Irrigated Urban and Peri-urban Vegetable Farming. CPWF PN 38 Project Report, Kumasi, Ghana

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Asante, S.K. 2010. Empowering Farming Communities in Northern Ghana with Strategic Innovations and Productive Resources in Dryland Farming. PN6 Completion report: CSIR SARI, CSIR-WRI, ISSER, IWMI, ICRISAT, CPWF.

Barry, B. and G. Forkuor. 2010. Contribution of informal shallow groundwater irrigation to livelihoods security and poverty reduction in the White Volta Basin (WVB): current status and future sustainability. CPWF Project Report. Colombo, Sri Lanka: Challenge Program on Water and Food. www.waterandfood.org

Douxchamps, S., Ayantunde, A. and Barron, J., 2012. Evolution of Agricultural Water Management in Rainfed Crop-Livestock Systems of the Volta Basin. Colombo, Sri Lanka: CGIAR Challenge Program for Water and Food (CPWF). 74p. (CPWF R4D Working Paper Series 04)

Fatondji, D., Tabo, R., Bationo, A., Fosu, M. and S. Sawadogo. 2010. Enhancing rainwater and nutrient use efficiency for improved crop productivity, farm income and rural livelihood in the Volta Basin. PN5 Completion report: ICRISAT, AGRA, SARI, INERA, CPWF.

IWMI Research Reports and Working Papers

Evans, A. E. V.; Giordano, M.; Clayton, T. (Eds.). 2012. Investing in agricultural water management to benefit smallholder farmers in Ghana. AgWater Solutions Project country synthesis report. Colombo, Sri Lanka: International Water Management Institute (IWMI) 37p. (IWMI Working Paper 147). doi: 10.5337/2012.209

McCartney, M.; Forkuor, G.; Sood, A.; Amisigo, B.; Hattermann, F.; Muthuwatta, L. 2012. The water resource implications of changing climate in the Volta River Basin. Colombo, Sri Lanka: International Water Management Institute (IWMI). 40p. (IWMI Research Report 146). doi:10.5337/2012.219

Namara, R. E.; Awuni, J. A.; Barry, B.; Giordano, M.; Hope, L.; Owusu, E. S.; Forkuor, G. 2011. Smallholder shallow groundwater irrigation development in the upper east region of Ghana. Colombo, Sri Lanka: International Water Management Institute. 35p. (IWMI Research Report 143). doi: 10.5337/2011.214

Namara, R.E.; Barry, B.; Owusu, E.S.; Ogilvie, A. 2011. An overview of the development challenges and constraints of the Niger Basin and possible intervention strategies. Colombo, Sri Lanka: International Water Management Institute. 34p. (IWMI Working Paper 144). doi: 10.5337/2011.206

Journal articles

Cherlet, Jan; Venot, Jean-Philippe . 2013. Structure and agency: understanding water policy changes in West Africa. *Water Policy* 15(3). 479-495

Lemoalle, Jacques and de Condappa, Devaraj(2010) 'Farming systems and food production in the Volta Basin', Water International, 35: 5, 655 — 680.
<http://dx.doi.org/10.1080/02508060.2010.510793>

Ogilvie, Andrew , Mahé, Gil , Ward, John , Serpantié, Georges , Lemoalle, Jacques , Morand, Pierre , Barbier, Bruno , Tamsir Diop, Amadou , Caron, Armelle , Namarra, Regassa , Kaczan, David , Lukasiewicz, Anna , Paturel, Jean-Emmanuel , Liénou, Gaston and Charles Clanet, Jean(2010) 'Water, agriculture and poverty in the Niger River basin', Water International, 35: 5, 594 — 622. <http://dx.doi.org/10.1080/02508060.2010.515545>

WLE background materials

Volta Synthesis – First Draft for discussion. CGIAR Research Program on Water, Land and Ecosystems. May 2013

Synthèse de la Volta – Version Preliminaire. CGIAR Research Program on Water, Land and Ecosystems. Mai 2013

Business Models for Resource Recovery & Reuse. A focus area within the CGIAR Research Program on Water, Land and Ecosystems

Solutions towards Safe Wastewater Irrigation A focus area within the CGIAR Research Program on Water, Land and Ecosystems

Taming Water Resource Variability through Innovative Storage Solutions. A focus area within the CGIAR Research Program on Water, Land and Ecosystems

A novel subsurface solution to controlling floodwater impacts and improving livelihoods in the developing world. A focus area within the CGIAR Research Program on Water, Land and Ecosystems

Increasing Synergies and Reducing Tradeoffs along the Water—Energy—Food Nexus (WE4FOOD). A focus area within the CGIAR Research Program on Water, Land and Ecosystems.

Constructing wetlands within reservoirs to improve fisheries. A focus area within the CGIAR Research Program on Water, Land and Ecosystems

WLE Regional Strategy and Prioritization. Developing a Focal Region Initiative in the Volta and Niger basins

Annex 2 – Agenda

Day 1 – 28 May

Opening Session

1.1	Welcome by host organisation	Remarks by Tim Williams, Director, IMWI Africa
1.2	Prayer	Ofafunke Cofie, Basin leader, WLE
1.3	Introductions	AB gets participants briefly introduce themselves, one by one
1.4	Overview of WLE	PPT by Andrew Noble, WLE Program Director
1.5	Workshop objectives / expectations	PPT by AB
1.6	Getting to know each other	AB asks series of questions to build picture of experience, expertise etc

Volta Basin Context

2.1	Background information on Volta	PPT of maps and tables by Martin van Brakel
2.2	Risks and opportunities, part 1	PPT by Fabrice DeClerk & Olafunke Cofie
2.3	Risks and opportunities, part 2	Discussion in 6 groups (approx. 7 people per group) Each group is tasked with producing 3 risk cards (pink), and 3 opportunity cards (green). Participants place cards on wall as they go for lunch.
2.4	Review group work	AB reads out risks and opportunities cards, with rough clustering of ideas
2.5	Agric Investment plans, part 1	PPT by Tim Williams on the Comprehensive Africa Agriculture Development Programme (CAADP)
2.6	Agric investment plans, part 2	Short presentations by 5 participants on plans for Volta countries: Sa Dittoh (Ghana), Seydina Oumar Traore (Burkina Faso), Moussa Amadou (Niger), Adama Sangare (Mali), Ibraheem Olomoda (Nigeria). Presenters had 5 min each, using PPT or flipchart
2.7	Agric investment plans, part 3	Plenary questions and answers about the national and regional investment plans

What WLE is doing

2.8	Introduction	AB explains the 'bus stop' process and divides participants into 5 groups
2.9	SRPs present their work	5 SRPs have a poster & table in different parts of the room: Deborah Bossio, Pay Drechel, Sanmugam Prathapar, Fabrice DeClerk, Vladamir Smakhtin). The 5 groups of participants rotate around the room, spending 8 minutes with each SRP
2.10	Conclusion	Plenary questions and answers about the WLE- SRPs

Day 2 – 29 May

Avenues for WLE activity in the Volta Basin

3.1	Recap	AB recap Day 1 (with HO of outputs), and reiterate expectation for Day 2
3.2	Cross-cutting issue A	PPT by Nicoline de Haan on Gender / Equity, in response to questions raised on Day 1
3.3	Selection of preferred outcome	PPT and HO by AB of 8 tentative outcome statements. Explain how these are based on the clustering of risks and opportunities from Day 1. Participants given 5 min to decide preferences (individual assignment, choose 4 out of 8). Voting carried out with results on wall. Top 5 are selected for subsequent group work.
3.4	Refinement of outcome statements	Each selected outcome statement is assigned to a group. Each group is given 3 tasks, with answers written on a flipchart. <ul style="list-style-type: none"> • Discuss the validity of the outcome statement in the context of the Volta Basin • Revise the outcome statement if necessary • Identify indicators that could be used to measure the achievement of this outcome
3.5	Review results of group work	Each group presents results from session 3.4, and answers any questions from others
3.6	Beneficiaries and Barriers	Same groups are given two more questions to answer about the assigned outcome: <ul style="list-style-type: none"> • Who will benefit if the outcome is delivered? (Numbers and distribution of people? Women/Men? Poor/Rich? Urban/Rural?) • What are the major barriers or risks that could prevent delivery of the outcome?
3.7	Review results of group work	Each group presents results, and answers any questions from others
3.8	Cross-cutting issue B	PPT by Fabrice DeClerk on Ecosystems / Resilience (added to program at the request of the researcher)
3.9	Research Needs and Network	Participants are given opportunity to change group if they think another topic is more relevant to their expertise. Then all groups are given two more questions to answer with regard to the assigned outcomes: <ul style="list-style-type: none"> • What is the most important research that needs to be carried out to support the delivery of this outcome (not only the topic, but the level and geographical focus) ? • Identify the key organisations that are already carrying out relevant research and development activities, or which have the mandate and potential to do it.
3.10	Review results of group work	Each group presents results from session 3.9, and answers any questions from others
3.11	Low-hanging fruit	Same groups are given a final task: <ul style="list-style-type: none"> • What research results/outputs are already available, or likely to be delivered in the next 3 years. This session is hyped to be competitive, with time pressure. Each group is expected to identify a 'big idea' that they will have to sell to the others.
3.12	Review results of group work	Each group makes a pitch for their big idea. Comments from Andrew Noble and Peter McCornick. A 'winner' is announced.

Day 3 – 30 May

Niger Basin Opportunities

4.1	Recap	AB recap Day 2 (with HO of outputs), and reiterate expectation for Day 3
4.2	Niger basin overview	PPT by Andrew Ogilvie with Niger Basin maps/data PPT by Ibraheem Olomoda on the work of the Niger Basin Authority
4.3	Exploring key issues	Panel discussion with 7 selected experts from Niger Basin. Each made an introductory comment, and then WLE researchers were invited to ask questions. (Panel members: Adama Sangare, Bakary Kone, Ibraheem Olomoda, Harouna Karambiri, Mossi Maiga Illiassou, Boubacar Barry, Moussa Amadou)
4.4	Identification of priorities	Brainstorming session in groups. The panel members were distributed among the 5 tables. Each group has to come up with three cards of different colours, describing: <ul style="list-style-type: none"> Proposed geographical focus Thematic priorities What can WLE offer in terms of added value
4.5	Review results of group work	Each group presents outputs of discussion,

Moving ahead

5.1	Cross-cutting issue C	PPT by Ahmed Elmakass on the work of the African Union ((added to program at the request of the participant)
5.2	Brain-storming for the Volta Basin	A repeat of sessions 4.4 and 4.5, but focussed on the Volta (added at the request of Andrew Noble). Participants were able to use the HO from Day 2 to remind them of what had been discussed. The output was a set of three cards for geographical focus, thematic priorities and WLE added value.
5.3	The process for WLE program development	PPT by Andrew Noble, followed by questions and answers.
5.4	Appointment of Advisory Committee	Plenary discussion led by AB, with inputs from Andrew Noble and Peter McCormick. Clarification on possible role of advisory committee. Discussion about whether committee would consist of individual experts or representatives of their organisations, and how they may need to be officially assigned. This led to proposal to establish a temporary 'nominating committee' to deal with these questions. Members were proposed and agreed from among participants.
5.5	Wrapping up	<ul style="list-style-type: none"> AB distributed evaluation form, and clarified what participants can expect to receive in terms of reports and photos. Andrew Noble gave thanks to the organisers and participants, and closed the workshop

Annex 3 Brainstorming session – day 3

Volta

Added Value

- Implementation of intervention decisions
- Ecosystem services mapping
- Support to adaptive management
- Resilience analysis/assessment
- Implement integrated decisions
- Water productivity
- Institutional capacity
- Risk management
- Improvement of livelihood conditions
- Resilience capacity building
- Re-greening in Guinea/Sahelian Zone
- Improving net agricultural productivity
- Information and knowledge
- Adequate data
- Support in gender equality activities
- Partnership base
- Cooperation

Thematic priorities

- Erosion
- Sedimentation of reservoirs
- Institutions (around small dams)
- Crop-livestock-fishing systems
- Inequity of access to reservoirs
- Flooding
- ESS
- Sustainable land and water management
- Flooding
- Ecosystem rehabilitation
- Surface and groundwater management
- EWS
- Integration and strengthening of minority groups
- Institutional analysis
- Decision support tools/methods
- Data collection/management/sharing

Geographic Focus

- Whole basin
- Sudano-Sahelian
- Pilot sites
- Transitional zone to Sahelian zone
- White Volta
- Lower Volta
- Upper East, Upper West and Northern Ghana (erosion/sedimentation)

Niger

Added Value

- Upgraded monitoring and quality data/info. collection
- Information and knowledge management
- Trade-off analysis on re-greening and dams
- Support adaptive management (predictive and preventative)
- Agricultural productivity
- Risk management
- Regional database
- Network of partners
- Gender issues support /women empowerment
- Integrated modeling platforms
- Decision making frameworks
- Ecosystem services
- Across basin/displacement
- New data collection especially on floods

Thematic priorities

- Re-greening from the perspective of water lens
- Update of models and data
- Institutions and policy analysis
- Institution analysis
- Flood management
- Land degradation
- Land and soil fertility
- Institutional analysis
- Land grabbing
- Impact on, and of, ecosystems
- Displacement of people/livelihoods
- Groundwater issues
- Extremes (floods/droughts)
- Prediction (weather)
- EWS
- Groundwater recharge (artificial from surface water)

Geographic Focus

- Watershed links (Fomi, Kandadji, Taoussa)
- Inner delta of Niger
- Whole basin
- Dam infrastructure and efficiency in Niger, Mali, Guinea
- Upscale re-greening in the Sahel region
- Inner delta (ecosystems)
- Office du Niger/Mali
- Niger land grabbing
- Fadama (Guinea, groundwater)
- Sahelian area, sandy soils (soil fertility)
- Middle section of Niger Basin

Notes

Other thoughts from discussion:

- Appoint somebody within the region to coordinate and lead the programme, can't be done effectively from Colombo
- Link with other institutions
- Missing institution – ECOWAS centre in charge of environment, natural resources and water based in Ouagadougou (as an umbrella organization to bring all this together), AGRA, CSIR, Universities in the Basin's countries,
- Need a TOR for the proposed regional advisory committee on WLE (coalition of the willing)
- Need to identify the key actors not just institutions
- Suggestion to engage directly, bilaterally between WLE and ECOWAS
- Proposal of nomination committee to move forward engagement and identify key issues of focus, drafting TOR, deciding which organizations to approach as partners (with a life of 3-4 months)
- Saa Dittoh volunteered for the nomination committee.
- FARA is also key to this along with ECOWAS
- Seven volunteers nominated for the nomination committee
- Executive Secretary of the VBA proposed to be a member of the WLE regional advisory committee



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