GOOD PRACTICE PRINCIPLES
WATER DEVELOPMENT IN THE DRYLANDS OF THE HORN OF AFRICA[1]

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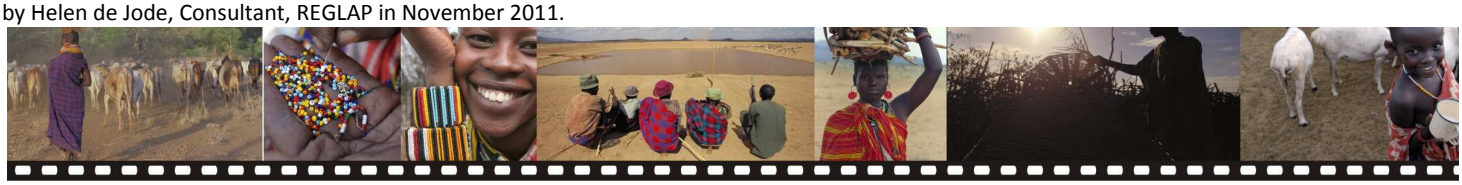
Introduction

Reckless water development is one of the main constraints to resilience in the drylands of the Horn of Africa (HOA). Many development partners, including governments, have implemented water development interventions in the drylands for domestic and livestock use that have had very varying degrees of success. Pressure to meet national domestic water service level targets, and attempts to accelerate opening up of potential rangeland, has seen an emphasis on hardware construction at the expense of environmental and social considerations, and sustainable management. This is particularly prevalent in short-term donor and government supported emergency relief and recovery water interventions.

Service delivery to pastoral areas often results in constraints to mobility (a central strategy that ensures viability of this production system)—affecting pastoral productivity and reducing economic performance. For this and other reasons the pastoral livelihood systems in many parts of the Horn are in crisis, as illustrated by the current drought induced disaster. Development of water sources in pastoral environments to enhance water coverage needs to be carefully formulated within national policies in order to promote mobility and to ensure the sustainable utilisation of resources across the rangeland.

Emphasis on hardware/physical water development facilities takes place at the expense of instigating water governance, improving operation and maintenance skills, installing financial management and providing technical backstopping—leading to the unsustainable management of water services. This un-sustainability is well demonstrated by the increase in service providers/water users committees who seek fuel subsidies and spare parts support during drought, when their water sales are supposed to be at their highest. In a great many cases the pastoral water supply systems have been so unsustainably managed that they have failed to provide adequate water even in times of great need, i.e. during droughts. Proper planning for the financing and development of water sources, and day to day water service provision (for domestic/livestock needs) is critical, and requires considerable time and effort to make sure that the intervention and support given is appropriate, targeted and demand driven for the long term.

[1] These good practice principles were drawn up/reviewed during an ECHO DCM partners meeting in ILRI, Addis Ababa in May 2011, and edited by Helen de Jode, Consultant, REGLAP in November 2011.



Many reports, studies and water actors' observations have identified the numerous problems that contribute to the unsustainable financing/development of water and water services provision in pastoral areas, and the lack of consideration for their social and environmental impact. They include:

- Inadequate infrastructure, which is often unfairly distributed due to inadequate financing.
- Environmental degradation due to inappropriate placement of permanent water sources, which causes degradation of the fragile rangeland environment and leads to loss of grazing areas, conflicts and increased vulnerability of pastoral communities to drought.
- Inappropriate technology choices, which the community cannot sustainably manage and which encourage environmental degradation.
- Poor design and construction of the water structures, due to limited numbers of skilled persons in pastoral areas.
- Poor capacity of beneficiary communities in management, operation and maintenance, due to poor skills, unwillingness to pay for water, poor accountability/financial mismanagement, gender imbalances in the management of water systems, cultural barriers, political interference etc.
- Development actors (including governments) undermining sustainability attempts through haphazard donations to communities that hamper plans towards self-reliance. This is often due to an incoherent and uncoordinated approach to water development, which is seen by many water actors as the overall impediment to development of sustainable water supply systems in the pastoral areas.
- Limited capacity of lead agencies, like line government departments, to provide the required technical support to community water supply systems.

This document is the first step towards developing and documenting general principles and good practices in the financing/development of water and water service provision in pastoral areas. The aim of the document is to initiate collection and collating of what stakeholders consider "good practice" in both normal and emergency times, and to initiate self-reflection on water development interventions. The intention of also to establish a starting point for a sharing platform, the standardization of approaches, the development of simple guidelines, and the identification of a 'lobbying agenda' for sustainable water development and services provision in pastoral areas.

Government policies and strategies give general directions on the development and management of water sources/supply, but translating these policies and strategies into action has not been done adequately. There is now an urgent need for governments in the HOA to review their policy documents and strategies related to water development in pastoral areas. In part two of this document a first step has been made to identify and review the water development policies of Ethiopia, Kenya and Uganda to identify some of the specific policy issues that need to be addressed.

1: Good practice principles

Technical guidelines exist on the design and construction of most of the water structures that are used in the Horn of Africa, and these are relatively well documented. However, there are no clearly written general guidelines on the development of water sources in the pastoral areas of the HOA. Below is a set of general good practice principles to guide water sources development in pastoral areas. Lessons learnt from bad practices have helped in the development of the principles. These principles need to be mainstreamed into general practice through the coordination of groups/agencies concerned with financing/water development during normal times and during emergency interventions in pastoral areas. These good practice principles were developed from a report by Nassef (2010).

Planning

1. **Understand the broader natural resource base and livestock grazing patterns/seasonal movements before beginning any water point development.**

   Water development needs to be part and parcel of natural resource management as a whole, recognizing the way that water access and use affects how the broader natural resource base is used and managed. Participatory natural resources mapping can help explain the extent and quality of existing pasture over different seasons, and the different land use patterns in an area. Planners and community representatives can then discuss their concerns and needs regarding water within this broader landscape/natural resource management context.

2. **Understand local contexts and dynamics, including the social, economic, political, legal and cultural aspects of a given location.**

   Research into the local context should include, but not be limited to: all the potential water resource users (e.g. downstream and upstream users along rivers); water access patterns; water needs/demand; particular concerns relevant to the area—including conflict over resources; customary institutions and their role in water/resources management; interactions with other governance institutions and stakeholders; and gender considerations. A comprehensive stakeholder analysis should be conducted at the local level to enhance the process. Planners must engage with all the local groups that represent the different resource users in the area, including representatives of customary institutions, women, vulnerable groups and non-local pastoral groups.

Project Design

3. **Identify the existing water points first and explore options for their rehabilitation by upgrading the water supply system before designing new ones.**

   Identify why the existing water systems are non-functional or performing poorly as a first step. Improving the performance of what is already there is not only cost effective, but researching the existing water supply system can help identify problems and the level of user responsibility. Future operation and maintenance will need to be a continuous process and mainly the responsibility of the users. Paying attention in the design phase to the rehabilitation of existing systems should be given priority, particularly in the context of emergency interventions when the project lifecycle is limited.

4. **Thoroughly evaluate the need for and potential impacts of introducing new water points, and identify remedial measures to tackle negative impacts.**

   This can be carried out through an Environmental and Social Impact Assessment process.

5. **Select the water development option based on choice of technology, cost considerations as well as on the expressed needs and capacity of the community.**

   A technical feasibility study and a cost-benefit analysis can identify certain choices, but the community should make the final decision on the design. Planners should explain the technological options available and help communities—through a process of dialogue and knowledge sharing—to select the most suitable technology and design that will satisfy their local needs. The use of traditional systems should be encouraged—the designs for which and local materials and construction know-how are already available.

   In the design phase it is essential to take into consideration the technical capacity that will be required to operate and maintain the water points, as well as spare parts availability. In remote areas, access to external technical assistance, construction materials and spare parts may be very limited.

   Technologies which do not encourage settlement, and which adequately space water points to alleviate pressure on any single water point, must be selected for rangelands.

6. **Integrate water development design with other pastoral development interventions.**

   Water development should be linked with efforts to improve access to markets, rangeland rehabilitation, etc. in order to address vulnerability and poverty effectively over the long-term—supporting and improving livelihoods.

7. **Promote meaningful engagement with communities throughout the project identification and planning phases.**

   The intervention should promote the use of participatory/consultative methods. Using participatory methods will enable planners to understand and benefit from local knowledge systems, and allow dialogue between communities and planners on the most suitable type, placement and size of water points.

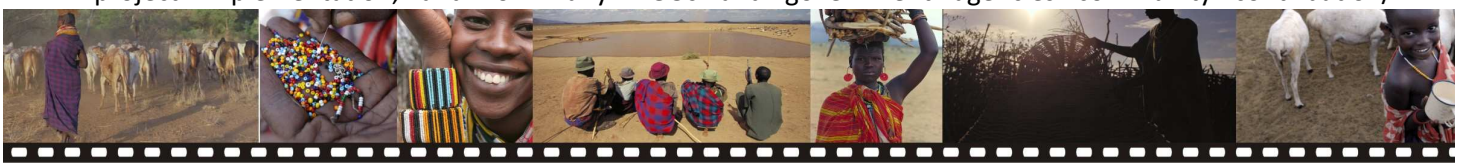
<u>Implementation</u>

8. **Ensure constructed water structures are of good quality by focusing on proper design and construction.**

   Guidelines on the construction of most water structures are available and should be used to guide their development. Community/local capacity should be developed in the construction of the water sources for sustainability.

9. **Promote the contribution of cash and/or labour in-kind in the construction or rehabilitation of water points**.

   Not only will this reduce project costs, but it will instil a sense of ownership, enhance community commitment to maintaining the water point, and ensure that it is sustained beyond the lifetime of the project. This requirement for a community contribution is sometimes difficult to implement and can delay project implementation, and for many NGOs and government agencies community contribution/



participation is often symbolic. Local contribution is important, should be realistic and should be accompanied by effective community mobilisation.

10. **Strengthen the capacity of water users in management, operation and maintenance**

    Communities should be assisted in establishing water management committees (or variations thereof), which include representatives of all groups with a stake in the development. The committees that help and manage the water interventions should be built upon existing customary resource management systems. These customary systems often provide a tried and tested context and culturally appropriate approach to water management, which can help diffuse/avoid conflicts over water. Practitioners should build on these systems rather than import new ones external to the pastoral context. Ensuring a combination of formal management committees and customary institutions is recommended.

11. **Provide training to local community members in construction, management and maintenance to embed capacity at the local level.**

    Develop a training curriculum with approaches appropriate to the target community, guided by a training needs assessment. Providing quality training to build community capacity and properly prepare community representatives to manage their system is absolutely essential for a sustainable rural water supply.

Sustainability

12. **Continue to assist communities to manage water systems for some time after completion of the project.**

    Adequate follow-up and mentoring may be required for some time. The community may engage private entities like a local entrepreneur, a CBO/NGO, women or youth groups to run the water supply on their behalf to ensure sustainability. However the plight of the vulnerable groups should also be considered.

13. **Undertake knowledge sharing, exchange and cross learning among implementing partners and relevant government agencies.**

    Exchange visits by communities, to see properly working and successfully managed water supplies, is an important way to demonstrate what is possible, and to raise community expectations. This will enhance the adoption of good practices in the region.

14. **Water sector development actors need to agree on common approaches to development/financing, which avoid undermining good governance.**

    Misguided donations of equipment and spare parts can promote the un-sustainability of community water projects. Often such donations, although well meaning, promote dependency by freely bailing out communities that have failed to manage their water supplies well, thus rewarding mismanagement. Relief should be linked to development i.e. by adopting a long-term livelihoods approach to humanitarian interventions.

2: General comments and recommendations on policies and strategies for water development in pastoral areas

Some of the country specific policy issues that need to be addressed in Ethiopia, Kenya and Uganda are as follows:

ETHIOPIA

In Ethiopia, livestock contribute about 40% of agricultural GDP and more than 20% of total GDP...[although] the government of Ethiopia allocated...less than 0.3% (of recurrent expenditure) to livestock[2]. Pastoralism also contributes to environmental conservation, tourism and the protection of biodiversity. The key documents in Ethiopia relevant to pastoralism are the **Growth and Transformation Plan (GTP) 2010** and the **Agriculture Sector Policy Investment Framework** and the **Disaster Risk Management (DRM) Policy**. Generally policies concerned with development of pastoral areas in Ethiopia advocate for voluntary settlement of the pastoralists and diversification into agriculture and other non-livestock livelihoods.

1. The Ministry of Federal Affairs' **2008 Draft Policy Statement for the Sustainable Development of Pastoral and Agro-Pastoral Areas of Ethiopia** suggests that sedentarization be encouraged, especially along perennial river-banks. According to the draft policy, the Government will provide support for the expansion of irrigation through household rainwater harvesting and construction of multi-purpose dams to support irrigation, which will enable pastoral and agro-pastoral people to pursue a sedentary life with a diversified and sustainable income. Sedentarization is likely to worsen the challenges facing pastoral livelihoods, and this policy need to be amended to recognise the economic viability of pastoralism and the need to support this livelihood wherever possible.

2. The **2001 Poverty Reduction Strategy Paper** encourages settlement by facilitating water supply to settled/semi-settled pastoralists.

3. The **Plan for Accelerated and Sustained Development to End Poverty** states that technical support will be given to pastoralists to encourage them to practice agricultural activities side by side with their regular activities, through the introduction of small-scale irrigation. However the document does recognise that restricted mobility disrupts livelihoods in pastoral areas. The Government of Ethiopia has set a policy that protects pastoral land, although it is not yet fully implemented.

4. Rural Development Policies, Strategies and Instruments see livestock production as an unsustainable livelihood, and sedentarization is encouraged through irrigated agriculture.

5. The **Ethiopian Water Resources Management Policy** recognises water for livestock as an integral part of the overall water sector. The policy outlines the need for efficient and sustainable management at all levels, and the need to strengthen water management capacity at all levels. It encourages water user involvement at the grassroots. It emphasizes the need to support traditional and localised water harvesting techniques, to build on and improve existing traditional water sources to improve rural water supply, and to promote community management, operation and maintenance. The policy also encourages partnerships between community, government and external agents like NGOs.

6. Regional Level Actors and Policies: Regional governments have the autonomy to tailor national plans and policies to suit their regional contexts. However, in practice these do not differ substantially and therefore the plans

[2] HPG, 2009, Social protection in pastoral areas, REGLAP/ODI : http://www.disasterriskreduction.net/east-central-africa/reglap

and policies continue to emphasise agriculture and sedentary livelihoods. In some areas there are specialised bureaus formed to ensure development appropriate to the pastoral context.

7. Major Government Programs and Projects: There are a number of projects and programs in pastoral areas in Ethiopia. The standard approach is where communities express demand for water to the local authority. The local government (or NGO) then responds to the demand. However there is limited sharing of good practices, little coordination, incoherence in the approach to water development and weak linkages between stakeholders, which means that inappropriate water development may go unchecked.

KENYA

In Kenya a lot of emphasis is given to water development for humans, even in co-ordination forums, neglecting the water needs for livestock that is so essential in maintaining pastoralist livelihoods.

1. **Sessional Paper No. 1 of 1999, on National Water Policy on Water Resources Management and Development** sets out a framework intended to bring about a culture that promotes comprehensive water resource management and development with the private sector, with community participation as the prime movers in the process to guarantee sustainability. The government's role would be largely to provide policy guidelines, an enabling environment and to regulate the sector.

The policy encourages the active involvement of the private sector in the development and management of water resources. With this end in mind, the policy advocates for ownership and management of water supply schemes and water projects, which must be clearly defined. The government will also embark on a conscious effort to sensitise the recipient communities on the principles of good management of projects, and equip them with the necessary knowledge and skills for sustainable management.

The policy foresees the entrance of numerous actors in the water sector, and the need to coordinate their activities to avoid duplication of effort and ensure adequate coverage in space and time. However it does not clearly address the possibility of the actors undermining the sector by using inappropriate approaches to water development, and therefore the need for direction/harmonisation. The Sessional paper clearly points out the problems that have constrained development of water sector—many of which are similar to the ones highlighted earlier in the introduction to these guidelines. Most of the problems still persist to date.

The policy stipulates that every project's adverse impact on the environment, and the necessary measures that need to be taken to mitigate these effects/impacts, should be clearly defined. Currently it is a requirement by the National Environment Management Authority (NEMA) for a proponent of a water project to carry out an EIA before implementing a project.

The policy appreciates that, among the reasons for the dismal performance and malfunctioning of many water schemes, was the wrong choice of technology—many of which were introduced into the sector without prior assessment of their suitability and adaptability, at the expense of local technologies. It recommends that the various technologies available need to be examined critically, and a selection made of those most relevant to Kenyan situations, including their appropriateness to women. It advocates for training of water users and other actors, and the provision of information regarding the alternative (new) technologies and their corresponding management needs and costs. Use of traditional technologies is encouraged, with modifications if necessary.

Traditionally water was perceived as a free commodity and water revenue has been inadequate to sustain the water supply schemes due to its limited revenue base, ineffective revenue collection mechanisms and the low levels of water tariffs. The policy now advocates for water to be considered as an economic good, but encourages price control mechanisms to be put in place i.e. tariff setting to protect the rural poor.

The policy recognises the need to enhance livestock development by providing and conserving all water available and occurring within livestock rearing areas. These interventions include: harnessing rainwater by constructing appropriate dams and pans in strategic locations and de-silting existing ones; and intensifying groundwater exploration and exploitation to provide alternative sources to surface water. It stresses the need to rehabilitate existing projects instead of starting new ones. These strategies will be pursued within a participatory framework involving the communities and other water actors in the design, construction and management of the water utilities.

The policy proposes a well-planned monitoring system to cover all the activities of the water sector. This will make it possible to document experiences and challenges on a regular basis and, by so doing, to gather information for both policy formulation and regulatory process.

The policy came up with an action plan for the implementation of the proposed changes in the water sector. Among the proposed changes was the repeal of the Water Act Cap 372, which culminated into the enactment of the current Water Act 2002.

2. The **Water Act, 2002** provides for the management, conservation, use and control of water resources, and for the acquisition and regulation of rights to use water; as well as providing for the regulation and management of water supplies and sewerage services. The Water Act, 2002 has inadequate provisions for the management /development of rural water supplies, and the anticipated water services provider structure is unsuitable for rural water supply systems.

The Water Act 2002 is being aligned to the Constitution of Kenya 2011 by a Task force on Alignment to the New Constitution in the Ministry of Water and Irrigation.

3. The Ministry of State for Development of Northern Kenya and Other Arid Lands was created in April 2008 in recognition by the government that the region has not enjoyed the same level of development as the rest of the country. There are several funds being developed targeting the pastoral areas. The Northern Kenya Investment Fund aims at encouraging private sector investment, taking into account the unique environment of the pastoral areas. Water is considered in the component on infrastructure investment.

4. The **Draft National Policy for the Sustainable Development of Arid And Semi Arid Lands of Kenya** focuses on the revitalisation of the Arid and Semi-Arid Lands (ASALs). In the medium term the policy envisages attracting sustained investments by government, the private sector and development partners in various priority areas.

The policy recognises the ASAL-specific issues of concern to environmental sustainability as being, among others: rising population and declining natural resource base; poor land use policies that promote settlement around permanent water sources; poor management of water catchments and riparian vegetation; and a lack of enforcement of environmental laws. The policy sets out to address the concerns through the government and other stakeholders.

One of the priority areas for development in this policy document is water resource management and development to improve livestock productivity. Water availability, its appropriate development, and its use, are key to the

development of the ASALs. The development of surface water through appropriate community-owned water harvesting structures, such as pans and dams, will be emphasised, while ground water will be developed based on social and environmental sustainability criteria.

To meet the objectives of providing water and sanitation, priority actions will include the protection and management of water catchment areas, the promotion and encouragement of community/private sector based water projects, and the expansion of water development and management by privatised arms of Local Authorities and other private entities. In remote areas where privatisation may not be feasible, community groups will run water facilities with the government providing back-up services, especially during emergencies.

The draft policy recognises increasing difficulty in fetching water and fuel-wood, due to scarcity of resources and environmental degradation. Moreover more resources are owned/accessed by men than by women e.g. land, water facilities, livestock and financial resources. The policy document gives general direction on water development of the ASALs but has been in Draft form for a long time (since year 2004) and it is not clear when it will be finalised.

5. The **Poverty Reduction Strategy Paper (PRSP)** recognizes that water is a basic need and an important catalyst for both economic and social development of the country. It states that "access to water for human consumption, agriculture, and livestock use is a major problem in rural areas". It is thus paramount to improve the living standards of the rural communities through the provision of sustainable water resources which will be used productively.

6. The **National Water Resources Management Strategy (NWRMS)** (2007-2009) was developed by the Ministry of Water and Irrigation. The overall goal of the NWRMS is to eradicate poverty through the provision of potable water for human consumption and water for productive use. The strategy provides a guide for assessing, maintaining, enhancing, developing and managing the limited available, renewable, fresh water resources, using an integrated approach and promoting its use on a sustainable basis.

7. Other relevant policy and strategy documents that can inform the water development guidelines for pastoral areas include:

- The National Water Services Strategy (2007 – 2015) by the Ministry of Water and Irrigation
- The Water Sector Strategic Plan (WSSP) of 2010 by the Ministry of Water and Irrigation
- The Water Resources Management Authority (WRMA) Strategic Plan (2009-2012)
- The National Water Harvesting and Storage Management Policy of May 2010 by the Ministry of Water and Irrigation.

UGANDA

1. The Ministry of Water and Environment **Water and Sanitation Sub-Sector Gender Strategy (2010-15)**. The Government of Uganda is committed to sound management and sustainable utilization of water and environment resources for the present and future generations. Accomplishing this calls for understanding and addressing the unequal power relations and the different roles, responsibilities, capabilities and needs of women, men, girls and boys, and other vulnerable groups, during the development process. In Uganda, women and girls are the major collectors, users and managers of water within homes. They are also the major promoters of household and community sanitation activities. They therefore bear the impact of inadequate, deficient or inappropriate water and sanitation services. Men however still dominate the arena of planning and decision making regarding water and sanitation development, and women's views are often under-represented, implying that women's practical and strategic needs are not addressed. This Gender Strategy provides guidelines that will ensure the appropriate planning and implementation of gender mainstreaming programmes, projects and activities—at national and local government levels—are undertaken in an integrated, consistent and sustainable manner.

2. **National Water Policy, 1997**. The National Water Policy promotes a new integrated approach to managing water resources in ways that are sustainable and most beneficial to the people of Uganda. This new approach is based on the continuing recognition of the social value of water, while at the same time giving much more attention to its economic value. The allocation of both water rights and investments in water using schemes, is aimed at achieving the maximum net benefit to Uganda from its water resources—now and in the future.

3. **Water and Sanitation Sector - Sectoral Specific Schedules/Guidelines, 2009/10**. The Water Sector Guidelines provide the framework under which the water and sanitation sector is operating. The Sectoral Specific Schedules and Guidelines are an update of the 2004 Water and Sanitation Framework.

4. Other Policy documents, strategies and legislation documents to be sourced and reviewed include:

- Poverty Eradication Action Plan (PEAP), 2005
- National Framework for Operation and Maintenance of Rural Water Supplies, 2004, MWE/DWD
- Long-term Strategy for Investment Planning, Implementation and Operation & Maintenance of Water Supply and Sanitation in Rural Growth Centres, 2005, MWE/DWD
- Steps in Implementation of Water and Sanitation Software Activities
- Water and Sanitation Sector District Implementation Manual, Version 1, 31 March 2007, Volume 1 – Main Report
- The Rangeland Management Policy – currently under review.

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Please send comments/suggestions on this document and relevant good practice experiences/studies to: Michael Gitonga at Michael.Gitonga@fao.org and Vanessa Tilstone vtilstone@oxfam.org.uk

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Copies of these principles and related documents can be accessed at:

http://www.disasterriskreduction.net/east-central-africa/reglap