

# MID-TERM EVALUATION OF DG ECHO FINANCED ACTIONS IN THE GREATER HORN OF AFRICA (GHA)

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# **FINAL REPORT**

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# MTR – DG ECHO financed actions in the GHoA

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The authors are grateful for the transparency that prevailed in all exchanges throughout this programme which covers a transitional stage between emergency and development in the complex human, economic and natural environment of the Arid and Semi-Arid Lands of the Greater Horn of Africa.

#### **EXECUTIVE SUMMARY**

The Financial Decision ECHO/-HF/BUD/2006/02000 "Improved Drought Management in the Greater Horn of Africa through support to drought preparedness, risk reduction and early warning" incorporates Djibouti, Eritrea, Ethiopia, Kenya, Somalia, Sudan and Uganda. The funding amounts to €10 millions for a period of 18 months which started on 1 July 2006. Whilst Somalia and Sudan are included in the Financial Decision, no projects have been carried out to date under Phase I of the Drought Preparedness programme (DP). At the time of the mission, political problems had prevented the implementation of the €26,293 project planned in the Southern Red Sea province of Eritrea. (The project will run albeit with reduced activities).

Building on the strengths of the ECHO 1996 Disaster Preparedness Programme (DIPECHO), the DP aims to address drought preparedness and the quality of drought-related humanitarian interventions in the Arid and Semi Arid Lands (ASAL) of the Greater Horn of Africa (GHoA). Whilst DIPECHO interventions aim at preparing communities to deal with rapidonset and man-made disasters, DP faces a more complex problem. The situation in ASAL is described as a "chronic emergency" because of the protracted nature of the crisis and its continued demand for humanitarian aid. It results from a vicious accumulation of factors affecting the livelihoods of pastoral communities. The two yearly rainy seasons follow erratic patterns and precipitation can fail for up to two years at unpredictable intervals. Recurrent droughts are inherent to the natural environment. Historically, sparsely distributed tribes used vast rangelands and customary efficient coping mechanisms. The socio-economic development of other parts of the countries coupled with an unprecedented demographic explosion introduced constraints that considerably reduced the productivity of the pastoral systems, leading to increasing impoverishment. Pastoral societies also suffer from government neglect and a growing imbalance of development with other social groups. With poor infrastructure, limited economic investment, conflict, high rates of illiteracy, and undue political decisions, an estimated 60% of the pastoral communities in the GHoA receive humanitarian aid.

Donors, agencies, national authorities and field actors acknowledge the failure of decades of humanitarian aid to initiate sustainable development and reduce poverty. The Drought Preparedness Programme utilises new concepts and new approaches.

The guiding concept used to confront the chronic emergency is that of 'Drought Cycle Management', (DCM). DCM attempts to reach a more efficient and durable utilization of natural resources leading to increased outputs and a stronger resilience of rural livelihoods. It also concerns the economic valorisation of marketable products through improved marketing channels. DP identifies three major components on which the Decision concentrates: (1) preparing for the onset of a drought – (2) planning the means for bridging the gap of lesser resources – (3) being informed on the onset of droughts.

# To (1): Community based drought preparedness activities

Building on local customs, previous experiences of drought, traditional coping mechanisms and working at grassroots level, activities aim to improve access to water for humans and livestock, strengthen animal health systems through Community Animal Health Workers (CAHWs), and facilitate access to grazing land. It aims to strengthen community resilience against periods of resource scarcity and increase productivity of the pastoral economy. A

community producing surpluses is in a better position to bridge a difficult period than the one just covering its own needs.

Drought preparedness activities thus involve the construction or rehabilitation of water harvesting interventions to bridge the gap between rains in strategic locations facilitating access to rangeland and/or markets. Where rainfall is low but ground water accessible, interventions seek to strengthen access to the water table. Interventions strengthen access to water and rangeland.

Preparedness activities also involve the strengthening of animal health systems. Healthier animals are more able to survive drought as they can walk further to water and rangeland. The programme targets community animals health workers and essentially and upgrades their technical knowledge and in some cases, their business skills. Certain programmes also include livelihood diversification, marketing, environmental conservation, conflict prevention and resolution, capacity building related to disaster risk management of stakeholders and advocacy. Communities are well targeted, remote, geographically dispersed and at great distances from towns, roads and developed infrastructure.

# To (2): Contingency planning

The programme seeks to address policies and functions of authorities to reinforce their planning and rapid intervention capacities to protect vulnerable populations in case of disaster. The pre-positioning of resources (fodder, vaccines, and water distribution equipment) utilises efficient communication between local and central level decision makers. It also addresses information between communities, including cross-border relationships, to avoid tensions between pastoral communities resulting from the scarcity of resources. The participation of both line department and communities at all levels of project implementation encourages sustainability. Programmes seek to build the technical and service delivery capacity of local government in drought cycle management and drought preparedness to enable local government to provide and receive relevant information to and from the community to ensure that pastoralists can plan contingency measures ahead of droughts. A number of projects visited work with local government on activities linked to local policies and guidelines on water and livestock.

# To (3): Strengthening of Early Warning Systems

Initiated first in Ethiopia in 1987, various Early Warning Systems (EWS) have evolved in the GHoA. Indicators include climate, natural vegetation, crops and livestock, and the household food baskets. The diversity of methodologies and objectives remain a major weakness. The collection of field data and the transmission of processed conclusions to decision-makers needs improvement. EWS appear biased towards food aid and agriculture, and indicators should be developed to monitor rangelands, water availability and the condition of livestock. Local authorities and actors in charge often lack the training for a correct interpretation of data and decision-making. The harmonization of methods and a closer linkage between operating agencies would significantly improve the benefits of EWS for the planning of appropriate aid interventions.

The programme acknowledges that present early warning systems (EWS) are bias towards

food aid and the agricultural sector. It thus seeks to shift to indicators and modus operandi to a livestock and pastoral based system. This is highly appropriate for arid and semi arid areas. A study of existing systems will identify key missing factors, harmonise existing information rather than duplicate existing systems. Indicators include the monitoring of pasture, browse, water availability and carrying capacity of selected water points as well as disease reporting. The FAO Ethiopia programme is committed to enhancing an appropriate pastoral EWS.

Many of the programmes utilise existing community based institutions such as CAHWs to facilitate the process of early warning and information dissemination. The use of CAHWs in this system is appropriate given the relevance of the indicators to the welfare of pastoral and CAHW environments and pastoral livelihoods. CAWHS monitor the situation on the ground as it is in their interest to keep abreast of emerging issues and disease outbreaks. As pastoralists, CAHWs are fundamentally concerned with the wellbeing of their herds, and have regular access to inhospitable and dangerous places in areas where government veterinary officers would not venture.

## Global strategy

The initiative of DG-ECHO evolved out of the continued and persistent distress of the pastoral communities in the GHoA. DP translates LRRD principles into practice and adopts a spatial approach to intervene where donors, actors and governments are missing, to address gaps and inadequacies to build sustainability. DP aims to initiate a "start-up" effect for communities whose resources are too low to independently engage in the strengthening of their livelihoods. The approach is innovative with long term vision and engages donors into broader consultations at the programming level. The proposals of ECHO partners did not, however, sufficiently integrate the environment, society, economy and culture, which are the four pillars of development.

The largely homogenous natural resource base and livelihoods of the ASAL allowed an innovative regional approach which embraces cross border programming. The programme is not only complementary in nature to DG-ECHO emergency operations, it is preparatory for DG-DEV development projects and has strong linkages with operations of other donors.

The Decision assigned a central role to a bottom-up approach and to local public and community structures. Whilst public sector departments such as Veterinary and Water provide information and training to projects, they lack resources and are insufficiently supported to fulfil their supervisory function. In Kenya for instance, the District Steering Group (a committee gathering regularly and comprised of all technical departments) plays a central role in coordinating proposed projects including those of the DP. They are key partners for identifying project opportunities but receive little attention from implementing partners. The mapping of water points done entirely through the Water Department in Samburu District is a refreshing exception, which should lead to similar initiatives elsewhere.

## Operational strategy

In the absence of drought, the impact of projects could not be measured by the mid-term review mission. Observations are given however in relation to approaches and activities implemented.

Whilst DP follows a unique and encouraging strategy, its practical application in the field has been hampered. Overconfident in their knowledge of the project area and hard-pressed by the short time for submitting proposals, many DG-ECHO partners neglected a true participatory approach in the planning phase, with a tendency to work in isolation and to draw little input from research or resource institutions. Most activities are sub-contracted to local partners adding value through their familiarity with the local context. However, lack of professional skills often affects the quality and monitoring of contracted works. Greater attention should be given to professional skills in the selection of field personnel.

A frequently expressed concern in the field was that DG-ECHO imposes too many principles and methodologies without sufficient consideration of the local environment or local conditions. The time frame for proposals, planning, procedures and management for DP projects appears to have been directly transferred from an emergency context without sufficient attention paid to the more complex demands and requirement of DP projects. The initiative to extend its mandate to incorporate DP is appropriate and welcomed but the greater requirements in terms of field work require adaptation in overall management procedures. The extent to which partners were able to exploit the implementation flexibility of DG-ECHO could not be assessed.

DP is a decisive step forward for a more durable impact of emergency aid without entering into the field of development. Some implementing partners have however missed the opportunity to adopt fully, this innovative and original approach. Project results will demonstrate their potential replication and their capacity to alleviate poverty after the end of the present phase.

The notion of "disaster preparedness" in GHoA does not suitably cover the reality. Preparing the populations to face the next drought period with adequate means is only one part of the problem. The challenge of DP is to support a holistic development leading to the modernization of the pastoral production system, taking into account the ongoing degradation of the natural resources and the exponential demographic growth. DP is not a linear progression from emergency to development and to some extent, it incorporates a research and development approach. Extending the time frame from 18 to 24 months with more substantial funding should provide the leverage effect to demonstrate the validity of the approach and ease the hand-over to other EC/donors development instruments which are in a better position to promote for the long-term the global issues of pastoral communities as they are working within government structures.

# Sector Strategy in Rangelands

Rangelands are a major component of livelihoods in pastoral communities and contribute directly to the food security of pastoral households. Pastoral resources have however suffered from poor management practices and unfavourable climatic conditions that reduced their productivity. Internal and cross-border conflicts constrain herders from accessing vast grazing areas. In addition, much grazing land is left unutilised due to lack of temporary water points.

Pursuing the mapping of water resources started by ECHO to facilitate the strategic spatial distribution of water points, settling resources-linked conflicts and rehabilitating rangeland potential are three major sectors able to restore livestock productivity and strengthen pastoral

livelihoods. Due attention should be given to these sectors during Phase II as they offer opportunities for useful "start-up" activities. DG-ECHO as an institution and DP as a regional programme should join efforts to advocate for government and donors to promote relevant development projects.

Opening up rangeland via installing strategic water points is an efficient means of opening up grazing lands and less complex than attempting to rehabilitate degraded existing lands. It is appropriate particularly given the short time duration of ECHO programmes. Large areas of northern Kenya have adequate pasture but cannot be used due to inadequate availability of water points. Pastoralists are compelled to migrate across borders despite known security threats. Strategically placed water points reduce such threats, provide critical water sources for different ethnic groups and enable access to under utilised grazing areas. Strategically placed water interventions also facilitate market access which strengthens household economies in normal periods as well as facilitating destocking during periods of stress. Destocking via the market is an increasingly common coping mechanism during drought periods. An example is the NGO COOPI's programme which is installing strategic water points in dry season grazing areas to open up access to an additional 70,000 hectares of grazing land.

Only the CARE/Eritrea project deals with the management and quality of rangelands under Phase I. Knowledge about rangelands is not widely distributed among the implementing partners and the time frame of DP has been wrongly put forward as a hindrance to include that sector. Diverse short-term activities can initiate useful long lasting effects on the quality and accessibility of grazing lands. Future programmes should consider issues are presented below.

- (i) Opening unused grazing lands does not contradict the improvement of used ones. The enclosure of pastures produces cheap on-stock forage reserves for the dry season. Customary in some pastoral communities, scientific observations have demonstrated its effects on the survival and production level of livestock and the practice can easily be extended.
- (ii) Resolution of conflicts not only reinstates peace, but gives renewed access to unused pastures. However, their long abandonment resulted in a bush encroachment which considerably reduces the productivity of rangelands and requires clearing to restore their full usage. FAO pilot projects that can be replicated already demonstrate the benefits in the quantity and quality of biomass obtained.
- (iii) Safety Net resources (Ethiopia) could be used for replicating pilot phases of community-based bush clearing tested by FAO and governments might better understand the disastrous effects on pastoral livelihoods of restricting the customary practice of controlled burning.
- (iv) The positive effects of over-seeding degraded grazing lands with seeds of endemic species or introducing legume trees can be demonstrated over one season.

A vast scientific background is available from past research on ASAL. With the recent agreement on a considerable co-funding of KARI station in Marsabit by DG-DEV and other donors, the ASAL areas are gaining new momentum. DP can directly benefit from close collaboration with KARI scientists at the programming stage of Phase II. Linkages between resource-based scientific research and grassroots associations and local partners could considerably strengthen capacity and programming. Their contributions are essential in the participative planning and management of resources (water, pastures) with users' communities. The linkage with KARI and its connections in the GHoA offer DP an opportunity for the technical adjustment of projects and will reinforce its regional entrenchment. It is expected also that

FAO will contribute more actively with their large resources of technical and operational knowledge.

Sector Strategy in Rural Water Supply

Projects under Phase I of DP address mainly punctual water supply gaps and deficiencies, the rehabilitation of assets and the management by Water Users' Associations. Priority is given to traditional technologies familiar to local communities and with affordable maintenance.

The protection against flooding of private shallow wells in river beds protects underground water from contamination and adjoining cement troughs reduce spoilage during livestock watering. The available water quantity is not however increased, and such improvements are affordable to many herders without external aid. Serious imperfections were observed in the design and quality of the constructions. In sandy river beds, lined up wells secure easier access to the water. Pulley systems to extract the water and installed by NGOs have not convinced the beneficiaries. Hand pumps are well accepted for domestic water. But the traditional human chain to water animals yields higher quantities and is still preferred by herders. Mechanizing livestock watering destroys the sense of solidarity essential for the survival of the pastoral system and is generally rejected by pastoralists, except for boreholes, which correspond to a specific technique.

Traditional shallow wells in Ethiopia (*ella*) belong to communities and are regularly maintained. The addition of new wells is an option to increase water availability, but the needs of the population should be effectively assessed beforehand. In Oromiya underground rain water collection tanks have been built with a costly design which is unlikely to be replicable by communities. In other places, such underground tanks contribute to extend permanent settlements in areas without wells (Forole). In the Somali region of Ethiopia, additional underground tanks (*berkad*) are constructed in villages. It remains to be seen as to whether it is justifiable to build new ones, when 60% of previously existing ones are abandoned by the community.

Surface water tanks are constructed in schools for the collection of rain water from the roofs. They contribute to the increasing well-being and health of children in water scarce areas.

Water pans of a standard design are built to collect surface run off water. They increase the period of water availability. The construction by mechanical means is expensive and, where not done properly, leads to damages rapidly reducing their capacity. Alternatives to heavy machinery including labour intensive methods have not been presented.

Whether privately or communally owned, the management of traditional water points follows rules long established in communities. They might be subject to improvements, but recently created Water Users Associations involving regular cash contributions are rarely sustainable, particularly when they concern motorized pumping systems. The management of boreholes by associations in rural areas has failed almost everywhere. In Kenya, the privatization of water distribution remains an unsolved option difficult to justify in rural areas with their well established customs. The most appropriate way for durable management of water points is to let rural communities decide themselves on the organization of the management. The external support should be limited to technical inputs and, where the costs of new installations exceed

the immediate capacity of the community, the provision of an appropriate financial facility.

Weaknesses of the visited water projects were the lack of a convincing justification of the planned additional volumes with regard to actual and foreseeable needs. Alternatives and adaptation to standard technical options are seldom considered and the cost/benefit analysis seems to be ignored. Inappropriate design and poor quality of the constructions reveal in many cases a lack of technical skill.

Strategic water points have the positive effect of facilitating transhumance and livestock trade. But developed without discernment they can lead to wild permanent settlements combined with cultivating lands used previously as dry season pastures. The correlative reduction of grazing resources directly affects regional livestock production and results in overgrazing. Humanitarian aid should not be party to the desertification process.

The relevance of an appropriate and secure water supply in ASAL areas needs no demonstration. The effectiveness, the efficiency and the sustainability of the realizations visited are however, diverse. The direct and indirect impact on the livelihoods and health of the concerned communities, as well as on the environment can only be guessed at this stage.

A regional strategy in the use of water resources and their potential increase through water harvesting methods could not be recognized. The mapping in one Kenyan district of the water points through the Water Department is a step in that direction following similar initiatives funded by ECHO elsewhere. It reinforces the capacities of the Water Department and facilitates information pertinent to planning and development for both public or private actors. Extended to other regions, water mapping could facilitate better planning and usage as well as identify needs in respect to human activities and the long term environmental consequences (improvement of existing water points, location and type of new ones) under Phase II.

# Sector Strategy in Animal Health

Besides grazing resources, animal health is a major element of livestock production. Public Veterinary Departments have seen their functions changed with the privatization of the delivery of veterinary services. Except for vaccination campaigns to control specific epizooties (rinderpest, PPR in shoats), they do not intervene directly in the treatments of animals. While private veterinary doctors have developed their clientele in high potential areas, few are present in pastoral areas. Community Animal Health Workers (CAHWs) are a well known means of improving the delivery of veterinary services. They are selected local by pastoral communities to be trained to become animal health auxiliaries working privately to treat common ailments. Contracted by the Veterinary Department, they are important actors of mass public vaccination campaigns.

Two approaches are tested. In Oromiya, a former public veterinary assistant has been supported to open a private veterinary pharmacy and, under the umbrella of FAO, delivers drugs and technical guidance to a network of affiliated CAHW. The shop owner decides on supplies according to the treatments required by herders and the quality and prices of products offered by drug companies. Started six months ago, the rapidly growing turnover seems to respond to the demand, but the validity and sustainability of the formula needs to be confirmed over a longer period.

The approach adopted in neighbouring Turkana, Kenya groups 50 of the most successful CAHWs trained in past projects by NGOs in an association contractually linked with an international drug company committed to supply them regularly. The association is building a central drugstore to be managed by their representative in charge also of the management of stocks. The private-public partnership approach to animal drug supply chain addresses many existing constraints faced by remote rural Kenya. Poor business skills and poor drug supply were identified as over riding constraints for viable CAHW systems in northern Kenya. Thus CAHWs have received business training on drugs management and marketing, seasonal market demands according to location and season. The system enables CAHWs to purchase drugs at wholesale prices and lowers transaction costs of both CAHWs and the drugs supply company. Drugs bought locally by individual CAHWs are far more expensive as transportation costs are higher

In both cases, technical and management training and a start-up package has been delivered to CAHWs by the implementing partner. The supervision by a certified reference veterinary doctor, compulsory according to the rules of the Organization of International Epizootics is provided in the first case by FAO and the public Veterinary Department. In the second case, the Veterinary Department theoretically in charge has no proper means to ensure the supervision and is not supported in that by the NGO having itself no veterinary doctor in the field.

While both strategies appear to be highly relevant to increase the coverage of veterinary services, it is too early to evaluate the impact of these contributions on the health condition of livestock and the livelihoods of herders. They are a contribution to drought preparedness, but the professional profiles of the actors and their role in relation with the public services still need to be clarified.

# Sector Strategy in Conflict Resolution

Conflicts over scarce pastures and water sources dramatically affected the regions across the borders of Kenya to Ethiopia and Kenya to Uganda and Sudan. Building on traditional mechanisms, one Kenyan local partner brought elders from each party across the Kenya-Ethiopia border to restore the dialogue and succeeded to achieve peace. With little financial means involved, the moderation function and the intensive involvement of the partner resulted in the settlement of the conflict which in the end results in renewed access to formerly abandoned pastures.

The Kenya/Uganda conflict was settled earlier at the initiative of local elders, but the implementing partner supports regular contacts between the parties to consolidate the peace agreement.

Bringing elders from different tribes/clans to exchange more intensively about the usage and management of shared natural resources should be extended also to non-conflict areas. The approach is actually the premises for a community-based land-use planning and the improved use of natural resources.

# Sector Strategy in Education

Interventions consist of roof water harvesting, the building of latrines and dormitories and the

improvement of curricula through the training of teachers. Education is without any doubt one of the highest priority for the development of ASAL. However, the scope of interventions needed to achieve a sizeable impact lies outside the portfolio of DP and interventions in this sector should be left to specialized institutions.

## **CONCLUSIONS**

DP has engaged in a sensitive and complex area of development where principles of LRRD elaborated in the middle of the 1990s by the EC still need to be confirmed and find concrete applications. In spite of its still short duration, DP has won the confidence of donors and development agencies with active coordination and collaboration in various fields. The unique regional approach opens the way for innovative and pragmatic solutions appropriate to the economically isolated, fragile environment of pastoral communities. Transferring LRRD requirements into emergency operations on one side, and taking into account DG-DEV's development perspectives on the other side, will confirm the essential transitional role DP has initiated and that should lead to a higher effectiveness in combating distress in the Horn of Africa.

Comparable agro-ecological conditions and natural resources over the entire Horn of Africa determine the shape of (agro) pastoral systems. They call for harmonized solutions and a shared constructive vision of the future. It is not a utopia that the extensive pastoral livestock husbandry can again reach sustainability. But favourable production and marketing factors, and exchanges between regions and mobility of herds need to be restored. In spite of weaknesses difficult to avoid at this initial stage, DP has laid the foundation stones to open the way forward. It is a key to shake off the corset of dependency-building humanitarian aid and to enable the capacities of pastoralists to take the forehand. ASAL regions have the potential to actively participate in the regional economy, provided they are not excluded from sharing in the wealth they create and benefit from legitimate investments in social, economic and physical infrastructures. This can be supported by DP in a meaningful way.

The experiment of DP needs further consolidation and should be continued with better adapted planning and management procedures leading to higher efficiency in allocated funds. Concentrating the operations along a geographical crescent from Southern Oromiya to Karamoja offers the opportunity of dealing with environmental and pastoral problems representative of the diverse regions of the Horn of Africa. A significantly higher funding (€40 millions are likely to be proposed), the tight selection of qualified partners, a stronger collaboration with FAO and the research in ASAL supported by DG-DEV should provide DP the leverage capacity to demonstrate the convincing impacts of the LRRD approach, thereby initiating the means for a higher resilience of the pastoral communities to drought.

# 1- INTRODUCTION

After a briefing at DG-ECHO in Brussels (3-4 May 2007) the mission departed for Kampala on May 11th and had a short briefing with the DP Coordinator and ECHO country TA before continuing to Nairobi on May 13<sup>th</sup>. Monday 14<sup>th</sup> was the opportunity to meet with ECHO-RSO, ECHO-SST and with a project assistant from DELKen.

The programme proposed by the DP-Coordinator concentrated on pastoral areas in Arid and Semi Arid Lands (ASAL) of Kenya and Ethiopia where livestock still represents the most important source of livelihoods. The field trip brought the team from Northern Kenya to Southern Oromiya in Ethiopia, Addis Ababa, the Somali region of Ethiopia and then back to Turkana District in North-Western Kenya. Time constraints forced to cancel the planned visit to the Karamoja region in Uganda.

Due to the particular set up of the Drought Preparedness Programme, the Evaluation Section accepted that it was not possible to follow the usual evaluation rules for 2 FAO and 14 NGO projects during a 28 days trip, even enlarged to 32. The review focused on attempting to determine how DP projects would contribute to increase the natural resilience of beneficiaries to withstand recurrent droughts, and how DG-ECHO could attempt to bridge the gap between the end of a crisis and the onset of development.

In other words, based on its flexibility and capacity of rapid response, it asked, is it the role of DG-ECHO to extend its emergency mandate and to enter this transitional "grey zone"? What would be the purpose, the required means and under which conditions?

The notion of drought effects, and therefore the remedies are subject to interpretation. Drought preparedness can be seen either from the emergency point of view (social approach) or from the development point of view (economic approach). But all actors met agreed on one point: the massive humanitarian interventions delivered in the dry areas of Greater Horn of Africa in the last three to four decades have not reduced poverty and have not initiated sustainable development. Governments, donors and aid workers all face the same question: how does one instigate a reliable future for communities at the lowest end of the Human Development Index in a fragile environment affected by an alarming degradation of natural resources and far from regional economic centres?

Disappointingly, and except for FAO, DP partners provided a rather weak vision on how to reverse the dependency created over years by free handouts. Indigenous development capacities of concerned communities could have found greater interest. However, the current efforts from DG-ECHO, DG-DEV and other donors highlight the awareness of the human tragedy in the Greater Horn of Africa. DP comes at the appropriate time with a constructive approach. The €10 million funding facing some 15 million pastoralists largely neglected by their respective governments corrals the ambitions of the programme.

#### 2- PURPOSE AND METHODOLOGY

DP evolved out of the striking need to depart from traditional ad-hoc emergency responses which have tended to ignore the causes whilst dealing with symptoms. As a major player among the donor community in East-Africa, DG-ECHO points out in a praiseworthy way fundamental concerns, which form the background to the ToR of the mission:

- what are the real consequences of the millions of aid poured into these regions?
- does aid prevent poverty or does it perpetuate the economic strangulation of rural communities bypassed by development for various social and political reasons?
- does aid counteract the depletion of natural resources, or does it encourage their sustainable use?
- does aid neglect the economic potential of an adequate use of ASAL resources and why?

The mid-term review mission has been confronted with a regional programme outside the emergency field in which DG-ECHO usually operates. The situation analyses and argumentations developed in the grant agreements helped ascertain an understanding of outputs expected to be achieved through implementing partners. A number of project sites were visited. Focus group discussions with beneficiaries demonstrated community perceptions and appreciation of projects implemented. Besides DG-ECHO, FAO, USAID, NGOs, key informants included technical line departments (mainly livestock, veterinary and water), community representatives, water users associations and CAHWs.

The duration allocated for the mission and the methodology indicated in the ToRs ignored to a large extent the geographically dispersed nature of the DP. Distances between projects absorbed the greatest part of time and left too few opportunities for detailed visits and thorough exchanges with beneficiaries or local authorities. Security rules added a further limitation to the free movement that external evaluators usually benefit from. A comparison with other projects in the same sector or the same region could not be undertaken. A posteriori it became evident that the mission should have split in two: one part dealing with field achievements, the second part dealing with the management and professional capacities of the partners and the institutional linkages at central levels.

The timing of the review mission followed the logic of project management procedures but happened together with the onset of the rainy season. Certainly, one could not wait for the next drought! The evaluation therefore depended on secondary, insufficient information gathered hastily during visits and the mission was left guessing the possible effects of projects based upon personal experience. The involvement of beneficiaries and the commitment of the actors visited deserve greater attention and reflection. Future evaluation missions should take into account the particular features of DP and be adjusted accordingly.

#### 3- MAIN CONCLUSIONS

DG-ECHO builds upon its long history in humanitarian aid in Eastern Africa to experiment with the Drought Preparedness Programme to confront a chronic emergency. The increasing frequency of droughts is too easy an argument for explaining the miserable living conditions of pastoral communities, who used to be self-sufficient, if not economically advanced. Countries of Africa and other continents show profitable livestock based economies in environments similar to the ASAL in the GHoA. Research conducted by international and national organizations brought to the fore the comparable potential of natural pastures and water resources found in the countries of the Horn. There are many hypotheses to explain why these regions have been bypassed by the economic development their resources could have assured, or why the livestock trade does not translate into more satisfactory living conditions.

It is now accepted that the huge funds spent on humanitarian aid brought in because of recurrent droughts have had a negligible impact on development and have failed to initiate sustainable livelihoods. The Drought Preparedness Programme has established a vision for longer term commitment to test innovative approaches, based on two pillars:

- (i) The principles of Linking Relief and Rehabilitation to Development (LRRD) to bridge the institutional gap between emergency and development,
- (ii) The regional approach beyond national borders to reflect the wide homogeneity of livelihoods and the migratory patterns of the pastoral and agro-pastoral communities of the GHoA.

The €10 million allocated to DP is a drop in the ocean vis-à-vis requirements necessary to reverse long term abandonment of ASAL. Through its bottom-up approach, and working through existing structures, this first phase clearly addresses disaster risk reduction. It aims at testing hypotheses for laying the foundations for a sustainable and regional pastoral strategy. DP establishes practical links between emergency and development in the difficult pastoral environment of ASAL and demonstrates a higher efficiency of use of foreign aid.

DP aims at pragmatic solutions applicable in ASAL for the "grey zone". They are not entirely part of ECHO's mandate and need pioneer work. However, many partner projects still appear to encompass an "emergency hang-over". The short preparation time for submitting proposals might have been the cause. Parts of proposed interventions were eliminated because DP has no mandate for development, though it clearly seeks to create foundations for its onset. This may explain the concentration on water supply and animal health, to increase the resilience of pastoral communities to drought, rather than that of degraded rangeland productivity.

The title of the programme might have oriented partners too much towards contingency planning, with the effect of awarding more attention to the symptoms than to the causes of insufficient resources during drought. Interventions in the water sector deal with increasing storage capacity or improving geographic repartition of water points. New *berkads* or water pans are built, and shallow wells are protected against pollution. No projects dealt with water harvesting to replenish aquifers or to hold back surface waters flooding. Short term interventions (contour lines, sub-surface dams) can achieve over a short installation period, long lasting effects resulting in a global increase of accessible water. Many examples of favourable sites were crossed during the visit.

The technical quality is, in many cases, unsatisfactory. Plans are not adapted to prevailing

## MTR - DG ECHO financed actions in the GHoA

local conditions and the additional quantities needed by the beneficiaries. Technical skills in mechanics, masonry, and construction appear rather weak and the monitoring of contractors looks rather administrative. Some rehabilitation interventions concern damaged assets badly made only a few years ago by the same partner. The professional skills of the field personnel should better correspond to the nature of works undertaken (masonry, mechanics, etc.).

This first experimental exercise of DP seems to be on the right track despite implementation weaknesses observed. The trust gained among other donors and agencies proves the importance of the problems addressed through the different projects. Lessons learnt will help to correct weaknesses and prepare future proposals. In that respect it is essential to integrate the existing development strategies (PRSP, national strategies) into the programming of projects and examine the consequences for each project area. The recommended closer adjustment of projects between DP and DG-DEV and other donors will open the way for a better coordination of development projects to achieve a higher impact on the vulnerability reduction in ASAL.

EC External Assistance offers a wide and recognized experience in the sectors of natural resources management, water and livestock. They constitute the foundations of livelihoods in ASAL. DP can play an essential role in materializing LRRD approaches that will promote the modernization of the pastoral production system.

#### 4- **RECOMMENDATIONS**

#### **4.1** ECHO

The enlargement of its mandate represents a salutary initiative by DG-ECHO to act in a "grey zone" where few other actors are present. Emergency humanitarian actors say it is not their mandate and development actors are not yet sufficiently active, delayed by the length of project planning and agreements with governments. Meanwhile, populations having lost their livelihoods but still unable to build a new way of life, disappear from the remit of aid programming. DG-ECHO disposes of its reputation and to a certain extent, prerogative for humanitarian aid, to counteract poverty during this institutional gap and prepare for development projects at a later stage to come on stream.

DP is an experiment in a high risk environment. Contrary to other crisis regions where agricultural and economic reconstruction draw on favourable resources, the pastoral economy shows few examples of development success stories. Models for achieving constructive and sustainable effects on pastoral livelihoods and their tight inter-linkages with environmental issues are yet to be defined. The selected regional approach with a great number of partners (17) was pertinent in its attempts to gather a broad scope of experiences from various actors in various fields and fine-tune the concept.

At the stage of the mid-term review:

- only indicative conclusions can be given about still ongoing test projects,
- the gathered experiences should be capitalized at the end of this first experimental phase and lead to exchanges with governments, donors and field actors to set the frame for coordinated and harmonized approaches translating in ASAL areas, the principles of LRRD. A combination of desk and random field evaluations should be considered.
- DP has extended the driving force of DG-ECHO in the Horn of Africa and woken up hopes. Beyond its role in emergency and humanitarian aid, DG-ECHO will contribute actively to the preliminary and early stages of development.

DP deserves consolidation through a follow-up phase in selected key sectors and regions to validate the approaches tested and lead to a framework that will increase its operational efficiency.

## (i) Project management:

At the institutional level, project management rules and guidelines, especially for procurement and contracted works, need to be adapted to local circumstances to avoid contraproductive effects in the field. For instance, the complexity of bidding rules eliminating local entrepreneurs in favour of bigger urban enterprises is mentioned by many partners. The preparation period for project proposals should be extended to 4 months and include the effective participative planning with beneficiaries. The administrative workload calls for rationalization and simplification. The ex-post controls should gain momentum and ex-ante controls be reduced to avoid implementation delays and provide the project management with flexibility and initiative capacity to respond to volatile conditions.

#### (ii) Time frame

The time frame of 18 months, which is already an extension of DG-ECHO usual rules, is seen by partners as a limiting factor in the choice and outputs of development oriented actions. If realized over two seasonal cycles, the effects of activities related to natural resources could effectively be evaluated with a higher confidence. The latest information received by DG ECHO indicates that the time frame for the Funding Decision will be proposed for 24 months. The planned project durations can be extended accordingly. But a first contractual period of one year with the partners should be kept for a result-oriented and more efficient management of the programme.

# (ii) Cash inflow

Greater attention should be given to opportunities for cash-inflow to revitalize the microeconomy in implementation areas. Field personnel with the adequate qualification can attain with local human resources most of the project works visited and facilitate the replication of innovations through learning by doing. Priority should be given with adapted procedures to the purchase of materials from local suppliers and individuals.

#### (iv) Further Evaluation

A provision should be made for evaluating the effects of DP projects when ASAL areas sway under the next drought.

## 4.2 THE DROUGHT PREPAREDNESS PROGRAMME

# 4.2.1 Strategy and components

Among the three components indicated in the Financial Decision, "Water and Sanitation" is addressed by the bulk of interventions, found also under the topic of "Contingency planning", while only one project concerns "Early Warning Systems".

Phase II should correspond more closely to the source of livelihoods. An efficient delivery of veterinary services is undoubtedly a major factor for sustaining livelihoods in a livestock based economy. However, healthy animals without adequate and sufficient nutritional resources will not fulfill their function. Therefore, the support to veterinary services should now be balanced with interventions aiming at restoring the productivity of rangelands and securing fodder resources for the dry seasons. The approach should combine the two sectors in the same project area. Priority should be given to communities having benefited from interventions in the water and animal health sectors to form a complete "package" and consolidate the benefits provided to these communities under Phase I. As in the water sector, the Livestock Departments should be involved in planning and implementation of projects.

In the water sector, priority should be given to the preparation role of the LRRD approach, more than to filling gaps of water availability in specific locations. The compilation of existing knowledge, the mapping of water points and the evaluation of the outputs of each source should be extended to all the intervention regions of DP and provide the groundwork for development projects. The successful exchanges between pastoral tribes and clans initiated for the peace building process should be extended to the management of water and pastures by pastoral groups using common grazing areas. The involvement and reinforcement of the pub-

lic water departments is key for the sustainability of a rational management of existing and potential water sources.

The support to Early Warning Systems in Ethiopia has opened pertinent perspectives for increasing the coverage and reliability of the field data collection. The principle of using the CAHW networks should be extended also to other active grassroots structures with a particular attention to the emerging indigenous pastoralists associations. The coordination between the support to EWS and other DP projects represents a potential left unused during Phase I and which should be strengthened under Phase II. In Kenya, the Drought Management Initiative (DMI) works on the harmonization of the various EWS. The coordination with DP involved at grassroots level is obvious and suitable, but there is no need of allocating DP funds for the role DMI is playing at the central level. DP should concentrate on organizing reliable field data collection systems and operational linkages at district levels, which can include an additional role for CAHW. In coordination with EWS, all DP projects should include the collection of meteorological data (rainfall and temperatures) through the training of local reliable stakeholders. Appropriate and simple instruments are available for that and should be installed by each of DP projects to extend the network of data collection sites.

The regional approach across the GHoA is a major strength of DP and should not be changed. At the micro-level, possible duplications or complementarities with other actors require particular attention. Dispersing funds on many projects entails a risk that may impinge on their impact. As a new approach, DP convincingly demonstrates the validity of a concept that can be obtained given sufficient leverage in the region. The successful settlement of cross-border conflicts and their representative agro-ecological and human characteristics make the regions from Karamajong to Southern Oromiya through Turkana and Marsabit a priority zone. Projects there consolidate promising approaches to water storage, animal health, and peace building to initiate future development interventions. LRRD outputs positively experimented there can easily be replicated in other ASAL regions. The perspectives of DG-DEV contributions should be particularly considered in the planning of the next phase (research and development in ASAL).

# 4.2.2 Objectives:

The principal and the specific objective of the programme are in their general definition valid. However, they should reflect the choice of priorities made under Phase I (*agro-pastoral and pastoral* communities). To confirm the validity of the LRRD and drought preparedness approach, it is highly recommended to concentrate the activities under Phase II within these pastoral production sectors to reach a leverage effect that can induce effective changes.

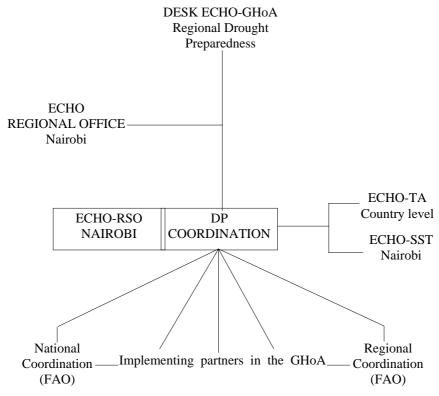
The education and public health sectors, notwithstanding their crucial importance, should be left to specialized development institutions, except for punctual interventions.

## 4.2.3 Structure and management of the DP Coordination

The pertinence of the regional approach with a great number of partners translates into overstretching the follow-up capacity of the coordination office in its present outlay. The use of working potential from national DG-ECHO representatives reduces the direct administrative costs of DP and should be continued. It plays a major role in information sharing and transparency of the operation within the DG-ECHO structure. The increasing and essential, but time consuming, coordination role with DG-DEV, donors and governments of the presently single coordinator obviously calls for additional professional staff. Partners have requested closer technical follow-up and inputs for this experimental aspect of the programme. This would be the main task of the additional professional capacity.

## The coordination unit should:

- have the opportunity for a closer collaboration with the regional offices of other donors, agencies and partners and be based at the ECHO regional office in Nairobi.
- keep the management principles that prevail in Kampala (share of administrative capacities).
- be integrated in the RSO structure, but keep the existing direct line to the GHoA Desk in Brussels, while responding equally to the ECHO Regional Office for East Africa, at least for Phase II. The second experimental phase of DP should finalize the most appropriate operational structure.
- coordinate with the DG-ECHO national Technical Assistants, the Regional Support Office and with the Sectoral Support Team (functional links, but not hierarchical) for all aspects of project identification, planning and implementation. Sharing of field experience will be a major point and allow for the introduction of emergency and humanitarian operations and development concerns



- collaborate closely with the EC-Delegations in the GHoA countries (functional links, but not hierarchical) so that LRRD principles better link emergency to DG-DEV projects.

- participate in coordination meetings with other donors, agencies, governments.
- represent DG-ECHO for what concerns LRRD in ASAL and drought mitigation.
- be responsible for the management of projects by the field partners.
- be staffed full time by:
  - + 1 coordinator with senior management and regional coordination functions
  - + 1 technical assistant coordinator primarily in charge of technical and organisational aspects and support/monitoring of field operations
  - + 1 administrative/financial assistant shared with the DG-ECHO regional structure.

The status of the technical assistant coordinator can be a DG-ECHO contract. Sub-contracting administratively to FAO would enlarge the scope of the recruitment. The added value of easy access to its resources would strengthen the ongoing collaboration with the institution. A professional orientation complementary to the ones of the national coordinators would be suitable. Presently, FAO partners are active in the animal health and production sector. Experience in ASAL pastoralism and water management issues would be advantageous.

## N.B.:

- office facilities should be shared with RSO
- the transfer from Kampala to Nairobi should be done ahead of the evaluation of proposals for the new phase
- the assistant coordinator should be present for the identification of interventions for phase II.

## 4.2.4 The coordination role of FAO

The Commission and FAO have been partners for a long time and it was natural to associate FAO to the DP initiative. Its status confers FAO a privileged role in the collaboration with the technical departments of member states in charge of natural resources, water, agriculture, livestock and fisheries. The institutional memory, the technical inputs and the experience of its own projects can significantly support the formulation and implementation of future projects. Its representation in the Horn are well indicated to play a coordinating, advisory and supervising role for NGOs operating under the DP programme.

Through its activities in the water and animal health sectors, hopefully extended to rangelands, DP paves the way for FAO to enlarge its own technical and institutional supportive role as an international development organization. A stronger commitment from the side of FAO would be highly appreciated.

# **Alternative Opinion**

ECHO should adopt the DP as an approach. Adopting this approach as an organisation would ensure that future interventions consider cross border activities and a more holistic livelihoods approach to relief interventions. Adopting a DP approach will ensure consistency across borders in terms of relief strategies and interventions. If ECHO utilised this approach for relief,

other donors may follow suit. Adopting a DP approach at Country Office level would add weight to ECHO's bargaining power to influence the EU's development strategies and encourage the EU to adopt a regional DP strategy.

Successful integration of rehabilitation or development objectives into relief programming requires the adoption of a DP approach by relevant ECHO country offices. This may require some orienteering of ECHO staff, though no staff interviewed appeared to disagree with the DP approach. Technical support officers interviewed were supportive of the approach.

# 4.2.5 The collaboration with research and other agencies

- The enlargement of the activities of the KARI research centre in Marsabit by DG-DEV funding offers the opportunity of a closer collaboration for LRRD projects. Research inputs for planning interventions could encourage better responses to the reality of the field, and technical aspects of rangelands, water and environment management.
- The ASAL would need for their effective revitalization huge and coordinated investments in relation with their geographic extension and regionally interlinked throughout the GHoA. Unless strategic mineral resources are discovered, it is unlikely that development funds and governmental investments will increase in an astounding mode. The scenario of the current ad-hoc medium term programs, even with the significant funding increments observed, is likely to be continued. Through the confidence gained among organizations and its regional coverage DP is seen as a major tool for insufflating pertinent project initiatives, collaboration and cohesion into the international aid community. Playing actively such a catalyst role would be a sizeable contribution to the achievement of DP's specific objective. However, this leading role can hardly be envisaged without the reinforcement of its technical capacities.

# 4.2.6 The regional outlay of DP

The regional approach has been concretised by the implementation of projects in complementary sectors in five countries of the GHoA, thus providing an overview of the problems in ASAL acknowledged by the confidence DP gained among donors and agencies. Hypotheses introduced under Phase I need to be validated through larger-scale approaches developed in representative regions under Phase II and reach sizeable effects able to justify their possible replication.

Agro-ecological conditions and pastoral communities in a crescent linking Southern Ethiopia to the Ateker Communities area offer an ideal field of intervention to that effect where DP has already gained substantial experience (water, animal health, conflict resolution). Without leaving aside interventions in other countries, priority should be given to a holistic approach building up on results from Phase I. Around 50% of the total DP budget should be allocated to that effect.

# **Alternative Opinion on the DP approach**

ECHO should adopt the DP as an approach. Successful integration of rehabilitation or devel-

opment objectives into relief programming requires the adoption of a DP approach by relevant ECHO country offices. This may require some orienteering of ECHO staff, though no staff interviewed appeared to object or disagree with the DP approach. Technical support officers interviewed were supportive of the approach. Adopting this approach as an organisation would ensure that future interventions consider cross border activities and a more holistic livelihoods approach to relief interventions. Adopting a DP approach will ensure consistency across borders in terms of relief strategies and interventions. If ECHO utilised this approach for relief, other donors may follow suit. Adopting a DP approach at Country Office level would add weight to ECHO's bargaining power to influence the EU's development strategies and encourage the EU to adopt a regional DP strategy.

#### 4.3 THE MANAGEMENT AND ORGANIZATION OF PROJECTS

Field personnel should reside in the area of operations. Considering the rising costs of fuel, the ecological consequences of road transport and the work time lost, the observed shuttle between residential towns and project sites is not acceptable. Project planning and organization should minimize transport and ensure a closer and continuous contact of field agents with the target group to translate the community-based approach in practice.

Proposals should be planned with the direct participation of the target groups. Communities should be involved in monitoring and evaluations. Public departments in charge of the sectors concerned should also be associated, with a special attention to RSGs.

DP would gain in efficiency and transparency in selecting a smaller number of partners with a background adapted to future projects with development experience. Project areas of partners should not overlap. Where local partners are required, they should not be financed by two DP partners, but by a single one.

# 4.4 THE SUPPORT TO PUBLIC DEPARTMENTS

Projects in the animal health sector need to better comply with international rules and collaborate more closely with Veterinary Departments. Networks of CAHW need the supervision by officially agreed veterinarians to ensure their sustainability. DP should provide the refreshment of professional knowledge and the means to secure appropriate supervision of CAHWs. At the central levels (district, ministry), DP has to advocate and gain commitment of the public service to take over and ensure the supervision of CAHWs. DG-DEV should be associated.

The model of mapping water points through the Water Department in Samburu district of Kenya deserves expanding to other districts where DP is present and mapping not yet done. Exchange visits between offices of different districts, including their cross-border equivalents, will contribute to the harmonization in the management of natural resources and applied approaches.

In Kenya, the District Steering Group is a central tool for the orientation and coordination of projects at district level. The improvement of their working means and capacities is essential for the development of ASAL. Here, too, exchanges organized by DP between DSGs of dif-

ferent districts will increase the respective knowledge and the harmonization of approaches. Because of its function at the interface between emergency and development, DP should collaborate more closely with the DSGs and participate at least quarterly to their regular meetings (directly or through partners).

In Ethiopia, the National Disaster Prevention and Preparedness Fund (NDPPF) offers opportunities of co-funding operations. Collaboration / adjustment with the Disaster Prevention and Preparedness Agency (DPPA) is recommended. The Safety Net programme should be tapped particularly for pilot projects in combating bush encroachment, but also in contingency planning. Previous experiences run by FAO can help for the setup of such projects.

## 4.5 THE RANGELANDS

Dealing with vegetation, rangeland projects are typically long term. However, and especially considering the opportunity of collaboration with KARI, short term contributions under DP can significantly contribute to actions for the long term. Three examples are given here that further investigations can enlarge.

- (i) Bush encroachment In consultation with KARI to determine the modalities and monitoring procedures, the opening of bush encroached pastures can be demonstrated in pilot projects associating manual cutting with controlled burning after identification of an appropriate area with pastoral communities. The resources of the Safety Net can be mobilized to that effect in Ethiopia, and an equivalent system set up with DP resources in Northern Kenya.
- (ii) Over-seeding degraded grazing lands In collaborative communities, seeds of endemic grass and legumes species are collected and over-seeded on degraded areas at the beginning of the following rainy season. The concerned areas remain protected from grazing during one year. KARI should be associated to monitor the evolution of the vegetation cover and to measure the effects on the livestock condition and production.
- (iii) Fodder storage An embryonic production of hay could be observed in Maikona (Marsabit) and Southern Oromiyia. In favourable agro-pastoral zones the production of hay can significantly improve at low costs the milk production and the rising of young animals kept around settlements. Experiences on a larger scale with appropriate technologies should confirm the validity of the option. In the Somali Region of Ethiopia the enclosure of pastures forms a sort of suitable rotational grazing. Apparently linked, however, to an abusive private appropriation of communal lands, this practice should be closely investigated with the communities to determine under which conditions the system can be expanded.

All three experiences are development options that can be later taken over by long term projects.

## 4.6 THE ANIMAL HEALTH AND PRODUCTION

- The approach started with CAHW should be extended to new areas, but with a stronger supervision by Veterinary Departments. CAHW should receive an adequate training to deliver an accurate picture of the animal husbandry in their working region to provide the elements to

measure the impact of their work. Located in their rural home communities they can play a useful complementary role in the data collection for EWS and the remuneration of this additional activity could contribute to their sustainability. Modalities of their collaboration with EWS and the local authorities (contingency planning) need to be elaborated.

- The training of CAHW on technical and management issues shall be continued and include also refreshing sessions for those from the first rounds. A higher attention shall be given to the manipulation of drugs and adequate protection means delivered for mass treatments. The role of CAHW in usual clinical interventions should be cleared with Veterinary Departments.
- DP should conduct a census of livestock populations in the project regions using the comparatively cheap and efficient technique of aerial quadrats. At the same time, aerial photographs of the vegetation can be taken. Collected in collaboration with KARI, these basic data can be made available to governments, donors and agencies for the purpose of planning and monitoring.
- Restocking operations that have been mentioned on the field trip should be stopped and credit facilities awarded instead where development projects or associations can take over.
- The mobility of herds is an essential element of the pastoral production system. The resolution of tribal conflicts should be consolidated by further regular exchanges between herders to optimize the use of shared pastures and water sources and the opening of unused areas. The principles of these exchanges should be extended to other regions and lead to the premises of a land use planning to be developed in collaboration with KARI. In agro-pastoral zones such a community approach should determine the allocation of areas suitable for cropping and promote the complementary role of agriculture and livestock in securing livelihoods

# 4.7 LIVESTOCK MARKETING

The marketing of livestock is the primary source of revenue for pastoral households. The tremendous increase of the demand in the Gulf States already influences the marketing channels in the countries of the Horn and an increased value of livestock in the coming years can be expected, that will sustain the development of pastoral areas. Livestock marketing projects are typically complex and long term. However, DP can facilitate and encourage trade through pertinent short term operations with long lasting effects.

Strategically located water points will shorten the watering intervals and better preserve the body condition of animals on the trading routes to destination markets.

Remote areas suffer from the absence of organized market places to attract traders. In adequate locations, the provision of water with appropriate troughs and simple installations can initiate the market places. Promotion campaigns should attract sellers and traders.

Market information (volumes, prices, tendencies) should be spread over radio and other means to make pastoralists even in remote areas aware of the price levels. The ongoing support to EWS in Ethiopia, as well as the collaboration recommended with DMI in Kenya are opportunities to develop such an information service that can be taken over by the public sector (national broadcasting companies).

The secondary roads are difficult to pass mainly because of a number of "black spots" that cut the passage especially during rains. Simple technical solutions realized with local manpower under the supervision of projects can eliminate these black spots and open the communication to remote places without rehabilitating the whole route. Such labour intensive operations will have a direct impact on the local economy and secure the access of traders with comparatively low budgets. Facilitating exchanges between communities on permanently passable roads contributes also to consolidate peace agreements.

## 4.8 THE WATER SECTOR

The large majority of activities under the DP concentrate on the water sector, and thus a number of specific recommendations can be given.

- The priority given in rural areas to traditional methods against boreholes should be continued.
- Water quantities available throughout a year should be better taken care of. New water points or expansion/deepening of existing ones should be done according to effective needs and after comparison with possible alternatives. For instance are all opportunities of shallow-wells exhausted before digging a water-pan? Is there a location for a water-pan uphill of a settlement that would allow a gravity water distribution instead of livestock penetrating the reservoir or installing a motorized pump? Have sites for sub-surface dams been exploited before thinking to drill a borehole? Has the output of existing shallow wells been secured by contour lines to replenish the aquifer?
- Simple rain gauges and thermometers should be installed in all settlements of project areas and local stakeholders be trained in the regular data recording and transmission to EWS so that present main climatic patterns can be followed with a reasonable reliability and complement the interpretation of satellite imagery by EWS.
- Improving shallow wells in river beds through a protection wall is a well known technique. In future, beneficiaries should take over and the support of the project be limited to the delivery of a package for communally used wells (plan, part of cement and tools) and the supervision of works. The same applies for *berkads* or water tanks for schools. The objective is a reduction of project costs and the learning effect provided by the approach which would then avail. It would also avoid dependency syndrome.
- The size of water pans should be better adapted to the local needs and the making technically improved in Northern Kenya. An exchange visit with partners in the Somali Region of Ethiopia would be useful to compare designs and know-how. Better care should be taken for the storage to excavation ratio (costs) and the depth to surface ratio (evaporation). Up to 1500mm/year can be lost through evaporation from open surface water. A minimum depth of 5m is recommended (where the nature of the underground is appropriate). Gully and hillside dams should also be considered. Because of the low atmospheric hygrometry and the temperatures during dry seasons, high capacity dams should have priority to smaller ones and gravity reticulation to distant troughs be envisaged, also to protect the direct environment of the dam from livestock trampling. Live hedges of shrubs and trees will reduce evaporation

and wind-born contamination.

- Mapping of water points by the Water Department, as done in Samburu, should be extended to all other regions not yet covered.
- Sub-surface dams taking advantage of favourable sites in flat portions of temporary streams provide opportune and secure water reservoirs. The evaporation of water trapped in the sand bed is almost nil. Access through lined up shallow wells is cheap and easy to realize with local resources and manpower. Successive sub-surface dams in a stream bed can considerably increase the volumes of held-back water and the riparian vegetation. With an adapted design road culverts can find a second role as sub-surface dams. A privileged area of application is Turkana.

## 4.9 ADVOCACY

Pastoral areas have suffered for long from negligence and their reputation is marred by prejudices of backwardness and folklore. DP should undertake during the next phase an advocacy campaign to restore the real value of ASAL areas and make government, donors, and the public better understand their real economic potential. Forming linkages with pastoralists associations, initiated recently in Ethiopia and Kenya and acting for the recognition of the pastoral economy offers a collaboration opportunity to be explored. The Pastoral Stakeholders' Meeting to be organized in Nairobi by DP during the coming month of September will contribute to increase among governments, donors and the public the awareness of the social and economic importance of pastoral areas in the GHoA.

#### 4.10 EWS

- The conceptual support to EWS started in Ethiopia should be continued and leading to model applicable also in other countries.
- Pertinent indicators on fodder and water resources, as well as on the condition, evolution and value of livestock should better reflect the situation in pastoral areas.
- Embedded in their communities of origin, CAHWs should be considered as potential contributors to the collection of field data and even play a role of relay for contingency planning in liaison with local authorities. The remuneration of their services should contribute to secure their sustainability.
- The collaboration of DP projects with one dealing with EWS should be organized and linkages with projects from other actors in the same region should be facilitated.

# 5 - PROJECTS VISITED

Nr.	Partner	Sector	Budget	Region			
2001	COOPI (PISP, CIFA, LVIA)	Improved drought management, drought preparedness and risk reduction	1 600 000	Northern Kenya, Southern Ethiopia			
2003	OXFAM (HFH)	Drought management project for Harshin and Gashamo	569 999.70	Rural areas in Somali Region of Ethiopia			
2005	Practical Action	Strengthening the resilience of pastoralists to drought	741 996	2 cross-border areas of Kenya/Uganda (Turkana)			
2008	CORDAID (ASF, CIFA)	Drought Preparedness Programme	1 385 601	Kenya and Ethiopia			
2009	Danish Red Cross DRK	Emergency Drought Preparedness intervention	458 372	Ethiopia (Oromia, Afar)			
2011	OXFAM (MERLIN)	Moderating the impacts of drought related water stress through water and public health improvements	700 000	Northern Turkana (Kenya)			
2012	Save the Children UK	Capacity added by mending early warning and livelihood information systems in pastoral areas	400 000	Ethiopia			
2013	DanChurchAid	Dugda Dawa pastoralist drought cycle management project	400 000	Ethiopia			
2014	FAO	Enhancing the capacity for emergency response in pastoralist systems	399 539	Ethiopia			
9 out of 17 projects representing ca. 66 % of the total funding of DP (10 m€)							

#### 6- BACKGROUND

Pastoral economies in the dry lands of Central Asia, the Middle East, Australia or the southern states of the African continent and the USA constitute a major part of the GDP generated by the primary sector: why not in the Greater Horn of Africa? Well established land use and management practices are applied in these countries and extensive livestock production is recognised as a fully-fledged economic sector and benefits from due attention by the governments in terms of infrastructure, research, financial facilities and social services. Over years, investments have increased the natural potential of feed and water resources, while human populations have adapted to the economic value of outputs provided. Technological progress initiated by research findings resulted in higher productivity *per capita* and an increasing number of livestock per household. The overall economy of the countries absorbed the outmigrations from these rural areas.

For the last three to four decades, the ASAL of the GHoA have shown a growing imbalance between human populations and the productions/revenues from pastoral resources. Unaccompanied by investments in physical, economic and social infrastructures, the trend of religious, political and humanitarian policies to change nomadic herders into sedentary populations ended up in overcrowded and destitute settlements with no sustainable alternative source of revenues and dramatic effects on the surrounding environment. Growing poverty called for ever more humanitarian aid, thus feeding the vicious cycle of chronic dependency from external sources sufficient somehow for survival, but not for initiating sustainable livelihoods.

Can rationally managed natural resources of ASAL provide a decent living for populations multiplied by a factor of up to 7 since the independence of the countries of the GHoA

The answer is definitively yes, but its achievement requires profound structural and social changes. There is undoubtedly an economic future for pastoral regions. However, it closely depends on the political will of governments to see pastoral areas recover its active role as a breeding area supplying the livestock industry in high potential areas, promoting the diversification of the private sector (processing and tourism industries) and exploring other economic niches (fibers, natural products, medicinal herbs...). The future of ASAL cannot be isolated from the progress of the rest of the concerned nations. It requires original solutions taking advantage of extensive low capital, but labour intensive activities able to supply processing and export industries to absorb people abandoning the pastoral way of life.

The awareness that the aid policy followed for years did not attain expected human progress, the changed environment of the world economy and the forces that pull the strings of explosive resentments in expanding impoverished masses call for a "GHoA Marshall Plan". Constructive and pertinent development policies should provide the financial and technical means for the vivid forces in ASAL areas to engage in an economic growth propelled by insufficiently tapped production and marketing potentials (see livestock marketing figures). ASAL are not condemned to poverty. Pastoralists are not victims of unfavourable agro-climatic conditions. They are victims of policies which fail to understand their real economic potentials, marginalising them and cutting the strengths of their adaptive capacities. They are also victims of tribal disputes that discredit them in the public opinion, while their political representatives never succeeded to form an active pastoral lobby. Fortunately, for a few years grass-roots associations of pastoralists have emerged and joined forces across the countries of the GHoA and beyond. Supported by the UN (Pastoral Communication Initiative), the Afri-

can Union and other organizations these initiatives argue with right, that pastoralism has its place in the 21st century. The framework of pastoral unions, which is building up across Africa and Asia looks at key issues such as governance, land use, education, markets and financial services, conflicts, feed and animal genetic resources. DP can operate in a good part of these sectors.

Countries	Items	Imports			Exports		
Countries	Items	2001	2004	2005	2001	2004	2005
	Live animals, except fish	427	554	n.a.	1	29*	n.a.
Eritrea	Meat of bovine animals fresh, chilled, frozen	11	42	n.a.	n.a.	n.a.	n.a.
	Live animals, except fish	174 208	8 487	n.a.	5 764	14 287	n.a.
Egypt	Meat of bovine animals fresh, chilled, frozen	127 279	180 986	n.a.	314	563	n.a.
	Live animals, except fish	193	365*	n.a.	513	1 099	n.a.
Ethiopia	Meat of bovine animals fresh, chilled, frozen	21	n.a.	n.a.	11	0	n.a.
	Live animals, except fish	325	602	n.a.	531	1 210	n.a.
Kenya	Meat of bovine animals fresh, chilled, frozen	68	13	n.a.	193	325	n.a.
	Live animals, except fish	164 310	471 337	714 297	3 991	27 097	49 738
Saudi Arabia	Meat of bovine animals fresh, chilled, frozen	54 994	120 000	124 845	3 433	2 185	3 871
	Live animals, except fish	279	4 105	3 059	1 499	136 635	106 46
Sudan	Meat of bovine animals fresh, chilled, frozen	11	0	0	2 348	950	835
	Live animals, except fish	573	583	802	246	131	85
Uganda	Meat of bovine animals fresh, chilled, frozen	40	1	8	17	384	760
	Live animals, except fish	4 735	45 792	62 369	0	18	4
Yemen	Meat of bovine animals fresh, chilled, frozen	3 744	4200	4 133	1	18	16
	Live animals, except fish	345 050	531 825	780 527	12 545	180 506	156 29
	Live animals, except fish**	169 045	517 129	776 666	3 991	27 115	49 742
TOTAL	Meat of bovine animals fresh, chilled, frozen	186 168	305 242	128 986	6 317	4 425	5 482
	Meat of bovine animals** fresh, chilled, frozen	58 738	124 200	128 978	3 434	2 203	3 887
	Live animals, except fish	100	+ 154	-	100	+ 1 438	-
	Live animals, except fish**	100	+ 306	+ 459	100	+ 679	+ 1 24
% change	Meat of bovine animals fresh, chilled, frozen	100	+ 164	-	100	- 70	-
	Meat of bovine animals** fresh, chilled, frozen	100	+ 211	+ 220	100	- 64	+ 114

## 7- EVALUATION AT LEVEL 3: GLOBAL STRATEGY OF DP

Linking Relief and Rehabilitation to Development is a flexible way of enhancing the outcomes of emergency aid delivered during a temporary crisis and to link them with the restoration of a sustainable economic system that will secure livelihoods. The main output of LRRD is to avoid the timely and methodological gap observed usually between the end of emergency and development aid leaving affected populations on a level of poverty too low for initiating own economic and social development. To a certain extend LRRD, and therefore DP, can be considered as a "start-up" support preparing the long term measures that will be delivered through development projects that need a longer preparation period.

Solutions are to be found in the interest of all actors involved in the aftermath of a crisis:

- the concerned populations need to come out of the trauma engendered by the crisis to catch up again with living conditions that permit dignity, responsibility and recognition of their human rights
- the concerned government(s) cannot bypass anymore a regional balanced development to secure peace, and social and economic progress
- foreign aid needs to come up with concerted and constructive interventions respecting the rights of the concerned populations as well as the strategies and policies of governments as long as they do not contradict internationally accepted human rights.

The initiative by DG-ECHO of the Drought Preparedness Programme results from the awareness that emergency aid has not initiated significant progress in the GHoA in terms of human development. Prejudiced may have aggravated the situation of local populations. In that respect, DP is a salutary attempt to find ways out of the dependency cycle.

The fundamental concern of DP is to identify and implement measures with a durable effect for common sense and efficiency of invested means. Following that logic, the proposals of partners should have considered in greater depth, the commonly accepted main pillars of durability, i.e. the environment, the society and the economy. Culture, the fourth pillar enabling the three other ones to fully play their roles, is absent from many projects. Local cultures are often neglected by most humanitarian actors due to ignorance or lack of interaction.

The rationale of DP is innovative in considering the regional nature of pastoralism and linking the risk reduction in ASAL to the EU's Regional Political Strategy (RPS), itself not ignoring national development strategies.

The Drought Cycle Management (DCM) is presented by DP as "the most appropriate intervention strategy for the reduction of the impact of drought". The drought itself is not however the only concern for ASAL livelihoods. ASAL livelihoods include social structures, and require economic, political and environmental changes to become a functional and sustainable system.. Such an approach is necessary but goes beyond the role assigned to DP, which is, in its essence, to establish a continuum between emergency and development within a time frame of 18 months. The scope of interventions relates short term activities with long term effects to other instruments which serve as a bridge to longer term perspectives. Its particular position at the interface between emergency and development confers DP a crucial role of

initiator and catalyst, if not as a coordinator of actors working in isolation.

The Financial Decision identifies the bottom-up approach and the central role assigned to local public and community structures as core instruments. However, this adequate approach does not find a faithful translation through the implementing partners. Their proposals rely on so called "community-based" assessment but the submitted operations reflect a desk exercise and not a real participative planning with the concerned communities. In practice, they end up in a top-down execution of measures. In the visited projects, public departments (Veterinary Dpt, Water Dpt) at district or local levels have been involved as source of information or partners in training sessions. They did not however benefit from a strengthening of their role in terms of support measures such as refreshment courses or working means. In Kenya, the District Steering Group (DSG) is involved at the stage of planning and authorizing proposed projects, but far less in implementation and evaluation of achievements. DSG would deserve a higher attention to support their essential planning and coordination function. Interviewed user associations (water) complained that trainings received were sporadic and not sufficient to effectively run the assets by themselves and cope with the ongoing privatization of water distribution. However, non-visited projects (livestock, Samburu) are said to work closely with the correspondent public department.

DP appears as a complementary instrument to DG-ECHO emergency operations and preparatory for DG-DEV development programmes. To reach a fully satisfactory implementation within this first exercise would be ambitious. Lessons learned in planning and implementation weaknesses should be used to upgrade an instrument that has embraced improvements in efficiency and pertinence of aid delivery to the ASAL. The EC- Delegations in Ethiopia and Uganda both recognized the added value of DP and expect closer collaboration in the planning of the next phase. Increasing the appropriateness of development projects and strengthening the preparatory work done via the DP should result from such closer collaboration. The utility of the initiative is obvious and proposals for better imbedding DDP in DG-ECHO structures are presented in the recommendations chapter.

Time did not allow to get an overview from all other donors or actors in the field of ASAL. The Arid Lands Resource Management Project (ALRMD) recognizes the added value of DP in the frame of ASAL development and welcomes a closer collaboration, especially for enhancing the role of the DSG. USAID [Enhanced Livelihoods in the Mandera Triangle (ELMT)] showed a strong interest in the exchange of information for a better understanding of the problems in ASAL and the ways to recommend for development. Informal discussions with other actors (a.o. GTZ-IS, AU-IBAR) including implementing partners demonstrated the great trust gained in that short time for the formula and the role of DP in the GHoA.

## 7.1. Needs addressed

With the exception of islands of agro-ecological conditions favourable to an intensive agricultural production, (regions under higher altitude tropical climate and part of the coastal regions), the implementing region of DP covers 5 countries with a similar erratic climate and precipitation levels ranging from 600-700mm/year down to 150mm or less (Chalbi Desert, Eastern Turkana) on low to middle elevations. Extensive raising of livestock adapted to harsh nutritional and living conditions is the most appropriate livelihood even if in some better off parts, agro-pastoralism is also practised, sometimes at the expense of pastoralism itself.

The production system relies mainly on resistant ruminants, the only intermediary able to transform natural vegetation into nutrients usable by humans. The system is common to ASAL areas of all the countries of the Horn and its viability was secured through generations of pastoralists by migratory movements dictated by the availability of pastures and water and ignoring political borders.

Under ASAL conditions an efficient livestock production system relies on five main pillars:

- the productivity of individual animals, mainly determined by the regular access to water and fodder (rangelands), a secured health (prophylactic/curative) and an adapted genetic potential (adapted species, selection);
- the productivity of the herd, including husbandry practices, but also the diversity of species to make the best use of the diversified biomass and the mobility to access grazing areas that can only be used temporarily;
- access to markets for selling animals (incomes, regulation of herd's size) or their products and getting necessary production inputs and other goods, whereby knowledge of livestock prices on regional and national markets is essential;
- 4 the mitigation of dry season risks (eventually changing into a drought period) through planning water (storage, trucking) and fodder reserves (on stock or cut), herd's sizes, preventive measures (health, herd composition, culling, transhumance);
- external factors generally beyond the influence of pastoralists, like conflicts and the coordination/monitoring of projects, including legislation and control or support from public services, the distance to key national or export markets and the demand for live-stock products, the distance to processing industries.

The global objective of DP can be understood to reinforce the pastoral economy enabling the capacities of communities to withstand inevitable difficult periods, inherent to the environment. The principal and the specific objective of the financial decision ECHO/HF/BUD/2006/2000 clearly indicate the route proposed for initiating through LRRD operations a sustainable development in the ASAL of the GHoA:

- "reduce vulnerability and strengthen capacity to withstand drought ..." is understood as a reinforcement of the livelihood basis of populations to better cope with periods of lesser resources and revenues,
- "... alleviating the impact of drought cycles ... through the provision of drought preparedness and related activities" requires an active reinforcement of the pastoral economy leading to livelihood security, and a higher resilience to bridge difficult periods.

The objectives of DP are obviously in line with the needs of the pastoral production system. It was also part of the mission to evaluate whether the projects proposed by the partners also follow the same logic.

We compared the achievements planned by the DP-projects with the factors affecting live-

stock production (see also detailed table in Annexe 7).

Interventions on water (human and animal needs here are combined) and drought preparedness have attracted the greatest number of activities, followed by animal health. Whilst the productivity of animals is partially supported (little interest in fodder), the productivity of the herds finds little interest, especially in relation to their mobility. Marketing of livestock, a major factor of livelihoods in ASAL, is totally absent. DP does not have the capacity to enter into the livestock marketing field. Projects such as strategic new water points, contribute directly to facilitate the movements of herds and traders. They might also invigorate the destocking of herds ahead of a dry period, provided markets offer attractive opportunities.

Opening temporary water points (water pans, rock catchments) in strategic locations increases the access to pastures otherwise left unused, or used for only a short period during rains. A longer grazing period on such surfaces means theoretically additional feed resources. However, except for flooding plains (south-eastern part of Marsabit district, northern part of Turkana district) where valuable graminae and herbaceous legumes dominate, bush encroachment resulting from under-utilization reduces the benefit of distant pastures made accessible. Camels and goats will take advantage of such pasture extension. The maintenance of these strategic water points in the long run remains uncertain. Conflict resolution on the other hand, allows vast rangelands left unused to become accessible (Shinil and Sigiso plains in Northern Marsabit) and might be more efficient in terms of surface gain. However, cases of conflicts between clans resolved through an additional water source have also been reported (Ambalo).

In terms of budget, water and sanitation (01.02) absorb more than 30 % of the total DP budget and disaster preparedness (01.08) only 5.28 %. The interventions in the animal health sector are to be found under food security (01.01), which reaches hardly 9 %. The Goods and Services Delivered represent 2/3 of the total expenditures.

Put together, the costs for running the implementing structures (personnel, durable equipment, logistics, transport, security, indirect costs) absorb 49.03 % of the total DP budget. This is a surprisingly high figure, which means that only approximately 50 % of the budget actually serve the purpose of the programme. No project structures were set up specifically, but were additions to existing activities already conducted by implementing partners, mostly in the same region. The proposals for Phase II should be thoroughly scrutinized to increase the proportion of funds that benefit effectively at field level the purpose of the programme.

# REPARTITION OF BUDGET LINES IN CONTACTED ECHO -PARTNERS

	TOTAL ESTIMATED BUDGET	7 219 771	100.00 %	100.00 %
Total dired	ct costs of the operation	6 750 053	93.46	
Maximum	EC contribution	7 130 982	98.77	
Percentag	e of eligible costs	98.77		
Code	HEADING			
01	GOODS & SERVICES DELIVERED	4 773 059	-	66.11
01	Food security	645 899	8.95	
02	Water and sanitation	2 214 869	30.68	
03	Health	24 000	0.34	
04	Nutrition	-	-	
05	Shelter	-	-	
06	Non-food items	53 584	0.75	
07	Rehabilitation - Continuum	-	-	
08	Disaster preparedness and mitigation	380 680	5.28	
09	Special mandates	19 900	0.28	
10	Specific actions	27 111	0.38	
12	International transport	8 250	0.12	
13	Personnel	1 399 121	19.38	
	Expatriate staff	558 886	07.75	
	Local staff	840 235	11.64	
02	SUPPORT COSTS	1 976 994	-	27.38
01	Personnel	425 218	5.89	
	Expatriate staff	138 620	1.92	
	Local staff	286 598	3.97	
02	Local logistics costs	752 561	10.43	
03	Durable equipment	414 463	5.74	
04	Security	35 567	0.50	
05	Feasibility, need assessment and other studies	82 374	1.14	
06	Specialised services	120 672	1.68	
07	Insurance costs	15 000	0.21	
08	Visibility and communication	113 232	1.57	
09	Others to be specified in proposal	17 907	0.25	
03	INDIRECT COSTS	469 718	-	6.51
04	CONTINGENCY RESERVE (per memoriam)	0	0.00	0.00

Source: Single form grant agreements from partners, 2006

# DP: Number of planned achievements by the 17 projects

21 Training of planned democratically and 11 projects								
Factors affecting live-	Produc	ivity of the animal		Productivity of the herd		External factors		Risk mitigation
stock production in pastoral areas	Access to water	Access to rangeland (fodder)	Animal health	Herd diversifi- cation	Mobility of herds	Coordination Monitoring	Conflicts	Drought Pre- paredness
Total number of achievements planned	87	8	24	5	0	13	2	56

The components in the DP- Financial Decision restricted the scope of proposals to three fields of interventions because the programme had neither the ambition, nor the means to cover all LRRD aspects leading to a global development of ASAL in that region.

## Community-based drought preparedness activities.

They address issues of water and sanitation, focussing on the maintenance of existing water points and the traditional use of camels for water transport, but including the mapping (updating) of water sources as a major planning tool also for the long term. Practical realizations concerned mainly the rehabilitation of damaged water points and the creation of a few new ones in strategic locations. Mapping of water points is ongoing in one Kenyan district.

In the livelihoods sector, short-term actions having a long-term effect (small-scale fodder preservation, CAWHs training, veterinary drug supply ...) have been undertaken, but no real diversification of livelihoods could be observed.

## Contingency planning.

Contingency planning incorporates local capacities, natural resources potential, traditional coping mechanisms and movements of pastoralists, as well as optimum size of herds, including policies, regulations and capacity building of public and private institutions. While water points received due consideration, water management was ignored. Users associations of various kinds are supported, or were created, but public institutions used as source of information are neglected in terms of practical support to fulfil their role in contingency planning.

## Strengthening of Early Warning Systems.

Initiated some 30 years ago EWS are run by different organizations, each applying its own methods and parameters. Only a strong coordination and regular compiling of collected data can pretend to turn EWS into an effective planning tool rather than an academic exercise. The Arid Lands Resource Management Project (ALRMP) makes a laudable effort in that sense with the publication of a common monthly bulletin widely distributed among organizations and government services. Based on field information coming from the pastoralists EWS correspond mainly to an ex-post evaluation. Even if their publication would reach them, they are of little use for pastoralists who react much earlier to climatic changes with their own observations. The involvement of CAHWs, might improve the accuracy of field data. This involvement of field workers has yet to find a durable solution (see recommendations).

The cross-checking of satellite imagery, vegetation cover and climatic records over years allows a forecast of an abnormally prolonged dry periods even if past experiences have not been convincing. But which means would be available to governments or organizations to counteract the forecasted event besides the usual humanitarian emergency operations? Fodder reserves? Transfer of livestock to less affected areas? Financial compensation of losses? Livestock crossing political borders to use available pasture? The justification of EWS is highly dependent on the response capacities of governments and agencies to counteract negative effects on populations and resources when they are announced.

Contingency planning linked to EWS is still thwarted by hypothetical practical and economically feasible solutions. EWS remain a sophisticated and expensive observation tool for organizations and governments, but is still not translated into operational solutions to mitigate the effects from climatic cycles of the ASAL system. The results and publications of EWS

# MTR - DG ECHO financed actions in the GHoA

still do not reach those who would first benefit from a timely warning, i.e. the pastoralists themselves. In terms of contingency planning and saving of assets in case of droughts EWS have no effects on pastoral populations and production systems.

Sustainable livestock development, upgrading skills and technologies of pastoralists, rehabilitating the lost productivity of rangelands would most certainly consolidate more durably the resilience of the pastoral system. Information accumulated through year-long observations by EWS are highly valuable complements to research results.

#### 8- EVALUATION AT LEVEL 2 – OPERATIONAL STRATEGY

Projects from other donors, including DG-DEV, could not be visited to make a comparison and to look for coordination opportunities and pertinence of objectives and results. Only one UNDP funded water pan and a cooperative slaughter house still under construction could be quickly seen.

DPs unique regional approach attempts to link emergencies to development and avoids dependency. Whilst suitable and feasible in the theory outlined in the Financial Decision, practical implementation through the projects visited, impinges on expected outputs.

Experience and knowledge of the regional context have favoured the selection of partners present during the successive crises. The technical aspects of projects however, often exceed their background. Activities are frequently monitored from an administrative point of view, and the skills to control the quality of the end product delivered by contractors (masonry, mechanics, plumbing...) are weak. During the planning phase, public departments, research institutes or development projects that could have provided useful technical, economic and social inputs were not sufficiently consulted. Participatory planning with beneficiaries would have probably afforded stronger project results and could have, to a certain extent, compensated for insufficient technological concepts. Most projects are sub-contracted to local NGO's, but this does not increase technological know-how. The added value of the *formula* lies more in the field of local social and political experience to consolidate project activities and facilitate communication. Local partners benefit also from the "on the job" training and the building up of their capacities. But the selection criteria of national and international field personnel should be revised and the command of professional skills balance academic and theoretical knowledge.

Inception workshops have paved the way for project implementation and communities were to a certain extent involved. Capacity building of local stakeholders is generally included and the participation of beneficiaries in carrying out activities compensates for time pressure experienced by partners during the planning phase. Conceptual thinking on how interventions could be linked to ongoing projects and contribute to long term developments was lacking among some of the NGOs visited.

DG-ECHO tends to rely on its own experiences and imposes intervention sectors, methodologies and type of activities without sufficient consideration for the diverse field particularities and opportunities. For this first phase of DP, the time frame of ECHO projects was extended to 18 months. The procedures for proposal writing and management however, were transferred from emergency operations without adaptation.

Such insufficiencies do not however reduce the merit of DG-ECHO in extending its mandate to incorporate LRRD principles. A revision of management principles and procedures for this new context, especially work contracts and procurement, would certainly have improved the effectiveness of projects. This should be addressed under Phase II. The mission could not discern how far partners were able to take advantage of the procedural flexibility of DG-ECHO in many aspects of project implementation. The concept of LRRD reflects the glaring necessity of adapting project setup procedures to properly respond to the field reality.

Whilst DP demonstrates a more effective use of aid, with more durable impact, partners

missed the opportunity to exploit the request for innovation. The impact of their projects remains, unknown at this mid-term stage. If confirmed, it should be served replicated in other post emergency situations.

Human conflicts, floods, earthquakes are abrupt and generally unpredictable disasters resulting in demolished cultural, social and economic fabrics. The needs following the end of such disasters are relatively easy to identify. The challenge of the GHoA is different. The distress and poverty that called for large humanitarian operations for approximately four decades reached a disastrous magnitude. The origins of that apparently endless situation are nevertheless different from a "usual" emergency case and are not found in rapid onset disaster. Drought periods and the consequent resource losses are inherent to the climatic cycles. Communities have learnt to live with this harsh environment, but not with restrictive administrative rules.

Pastoralists had developed coping mechanisms mainly consisting of mobility and the active management of fodder resources through herd composition, cyclic grazing and rotational burning to control unsuitable shrub and bush species. Large numbers of mixed herds relied on tree savannahs covered by a productive grass layer. Public rules constrain nowadays the usage of controlled burning and the subsequent bush encroachment has driven grass areas back to isolated clearings and temporary flooded areas. Less productive and less palatable to cattle, invading shrubs and bushes pushed herders to increase the proportion of goats and camels able to use them. But these animals correspond to opportunistic markets less reliable in terms of revenues. Land use patterns changed by external influences (national parks, ranching, dryland cropping) reduce the geographic areas accessible to pastoralists, especially those, which served earlier as dry season reserves. In addition, vast areas have remained unutilized for years because of tribal conflicts for a good part triggered by the reduced renewal of shared natural resources.

Increasing population, shrinking fodder resources and reduced numbers of cattle in herds leads to a rate of TLU per capita below the threshold of herd's restoration capacity. Pastoralists face the challenge of massively reduced production system potential. Demography issues translate into food and revenue needs growing at a rate exceeding present indigenous production of food and marketable items.

Lack of interest of governments, external interventions, increasing frequency of drought, and insecurity have dismantled fundamental parameters of local cultures not yes replaced by feasible alternative livelihoods. Humanitarian aid has not mitigated the spread of poverty and dependency is considered an aggravating factor. The way out cannot be the return to past traditions and habits. The future of ASAL lies in the formulation of a new pastoral way of life embedded in a social, economic, demographic and political context and rules that have meanwhile profoundly changed.

The LRRD instrument DG-ECHO introduced with DP takes here, a dimension closer to research and development than to a transition from emergency to development. The challenge is to exploit the knowledge accumulated by research in domestic and foreign experiences to initiate with the active participation of stakeholders, the rules for an efficient and durable use of natural resources able to support sustainable livelihoods. DP has the capacity to test and illustrate the potential of a pastoral production system as a major source of revenue in the foreseeable future .

The Drought Cycle Management (DCM) is a valuable instrument, even if only three stages (Alert, Emergency, and Recovery to a certain extend) have been taken into consideration during Phase I of DP. Under Phase II DP shall engage in three major field sectors able to consolidate the long term sustainability of pastoral production systems.

- (i) to rehabilitate the production potentials of rangelands (accessibility, controlled burning, grazing management, mobility of herds, conflict resolution)
- (ii) to increase the availability of water (holding back surface waters, strategic distribution of water points, improvement of existing water points)
- (iii) to secure the productivity of herds (management and adaptation of herds to resources, prophylaxis, public vaccination campaigns).

Additional and punctual interventions on marketing, communication facilities in remote areas and advocacy will increase efficiency of interventions. The key for coping with inevitable dry periods is to strengthen the pastoral production system during longer favourable climatic periods to increase its resilience. A strong economic system can resist difficult periods, while a weak economy leads to human disasters.

This initiative by DG-ECHO to launch DP is concomitant with the grassroots initiatives of pastoral communities from various countries to join efforts in international gatherings aimed at developing solutions by their own. These yearly events organised for a few years now with the support of the UN, AU and other agencies (Yebello, Hagere Mariam, Isiolo) express the firm will of pastoralists to rehabilitate the social and economic value of ASAL areas and escape the marginalised situation in which they have been trapped. DP can contribute through communication and support to these groups to strengthen the advocacy for pastoralism. The recent initiative of the Kenyan Government to reactivate the Kenya Meat Commission (KMC) adds a major instrument to regulate the livestock trade, but also to insufflate a new dynamic in the pastoral economy. The network of DP-projects offers the obvious opportunity to install market places and strategic water points in consultation with KMC to revitalize marketing circuits. The support of DG-DEV for reintegrating Somalia in the Organization of International Epizootics (OIE) and to the Somali meat sector, the launch of Kenya Arid and Semi-Arid Lands Research Programme (KASAL) with a significant financial contribution of DG-DEV (7.9 million Euro) are obvious signs of the rising awareness that the untapped potentials of ASAL and pastoralism can liberate the GHoA from continued dependence on food aid and emergency approaches.

Such an approach requires a long term vision and long term interventions are beyond the mandate of DG-ECHO. By planning through DP, strategic interventions coordinated with DG-DEV, ongoing humanitarian aid by DG-ECHO in collaboration with other agencies and governments could lay the foundations for the future. A pilot phase can demonstrate the validity of a hypothesis without committing the donor to a long engagement. It can compensate for the longer preparation phase of development programmes. Because of its long regional experience DG-ECHO appears as the most appropriate instrument of the Commission to build up LRRD, provided procedures adapt to the requirements of field implementation. Humanitarian aid could then contribute to the recovery of sustainable livelihoods, which should be the natural and logic output of saving lives during a crisis

#### 9- EVALUATION AT LEVEL 1 - SECTOR STRATEGY

#### 9.1- RANGELANDS

Rangelands in ASAL represent the fundamental support for livestock, on which roughly ¾ of ASAL populations depend. Increasing the quantity, the quality and the seasonal availability of natural biomass remains therefore a major means of securing the livelihoods of pastoral communities. The use of rangelands should be considered within the management of the area maintaining the mobility of herds and durable vegetation potential. It has to be accompanied, by the functional delivery of animal health services. Whether interventions in the rangeland sector should be part of the DP programme can be seen from two angles.

- (i) A one year programme is too short to address rangelands issues. Installing strategic water points is a more efficient means of opening up grazing lands than attempting to rehabilitate degraded grazing lands. The main argument put forward is here the time frame of DP. But it is a too restrictive and negative point of view ignoring available possibilities.
- (ii) DP can obviously not engage in long term programmes. But DP offers the opportunity of short term interventions with the potential to prepare and complement long term rehabilitation and/or improvement of rangelands.

Opening the access to unused grazing lands does not contradict the improvement of used ones. These are two complementary and not excluding operations. Grazing lands unused for long might have even been invaded by bushes and need bush clearing to become usable.

The vegetation of newly accessible areas offers only a seasonal complementary feeding. The potential increase of livestock numbers through an increased grazing area is only feasible if the presently grazed areas offer a correlative increased feed supply during other seasons.

Enclosures of pastures by cut thorny bushes ahead of the rainy season see an expanding application in the Somali Region of Ethiopia. They represent a cheap way of increasing the biomass needed during the dry season. This on stock feed storage is easier to realize and less labour demanding than hay making, which, from a practical point of view, is applicable only to small herds or for specialized uses (young animals, milkers) under specific and favourable conditions. An appropriate mechanization able to produce the tonnage needed for bigger herds can presently hardly be envisaged. Using the principles of the Safety Net the enclosure of pastures could easily be applied in other pastoral areas of Ethiopia or other countries.

Large pastoral areas of Northern Kenya are left unused because of insecurity. Fitted with water points, they constituted formerly part of the transhumance scheme of the Gabbras and the Boranas. Most important here is the resolution of conflicts and settling grazing agreements able to satisfy the needs of both tribes across the Kenya/Ethiopia border. The peace building process engaged through DP was successful and needs consolidation. However, due to their abandonment, the dense bush encroachment of most of these grazing lands would need clearing to recover their full value.

The pastoral areas of the GHoA have been subject to scattered descriptions already during colonial times, especially in Northern Kenya. In the early 70's the United Nations Environ-

mental Programme (UNEP) started a long scientific programme to assess all the natural and human parameters of ASAL. It was prolonged by the 15 years long research programme funded by GTZ (Range management Handbook) ending up with a detailed description of the ASAL natural features and production potentials (17 districts). Meanwhile the Kenya Agricultural Research Institute (KARI) developed in Marsabit a research station specialized in pastoralism, which is gaining a new momentum with recent international commitments (EU, WB, AU, GoK). More focused research programmes on pastoralism have been conducted by various universities and institutes in all the countries of the GHoA.

A vast scientific background about pastoralism in the GHoA is available, however widely under-utilized. Complementary scientific works and practical experiences are available from pastoral production systems in other regions of the world (Australia, USA, South-Africa, Namibia, Argentina ...). Pilot or short term interventions able to comply with the objectives and time frame of DP. Linked with pastoral development strategies, they can be identified in collaboration with KARI, FAO and other resource institutions. Some are:

- In the Somali Region of Ethiopia pasture enclosures already provide a seasonal stretching of fodder resources.
- Introduction of arborescent legumes like *Leucaena ssp.* providing vegetal fencing as well as a high nutritional evergreen feed in semi-arid areas can be demonstrated over a short-term project and help fragile stock (immatures, lactating females) to bridge the dry season or increase the milk production in settlement herds.
- Over-seeding degraded pastures with seeds collected from endemic species can be done over one season and significantly increase the fodder resources for the smaller herds kept around the settlements. Once tested at a small scale, it can be extended to larger areas by the pastoral communities themselves.
- Pilot projects for clearing bush encroached pastures would open the understanding of governments about the disastrous effects of restricting controlled bush burning on the livelihoods in livestock dependent areas. First promising tests by FAO can be extended.
- Hay making can be expanded in favourable agro-ecological niches of ASAL (Oromiyia, Dambala, Sololo, Maikona, Ramu), on higher elevations (Marsabit, Mount Kulal, Hurri Hills) and in agro-pastoral areas through yearly interventions demonstrating appropriate technologies to be fine-tuned by upcoming long term projects.

Adding new water points, even in strategic locations, should be cautiously done. A permanent water point, or extending the duration of water availability may put in danger the durability of natural resources. The Hurri Hills (Northern Marsabit) formerly a rain/intermediary season grazing area now host permanent settlements encouraged by interventions to support the collection of rain water and the building of schools. The quantities collected cannot however, cover the yearly needs of the population and only costly water tankering bridges the gap of the dry season. A thorough analysis should have preceded what looks like an "organized" chronic emergency to determine under which conditions and investments this region known to have no water source even through deep boreholes could afford a permanent settlement without ending up in erosion and desertification. The first responsibility lies in the hands of the government, but no appropriate land use planning is available for that region where district officers rarely appear. For humanitarian organizations it is therefore to look beyond the immediate needs of households that have migrated to that area without discernment of the consequences. Humanitarian aid should here not contribute to what looks like the first steps of

a process of desertification. The mountain of Marsabit provides in that respect a demonstrative example on what not to do.

## 9.2- WATER SECTOR ACTIVITIES

The activities in the water sector aim at securing a permanent and sufficient water supply for both human and animal consumption in rural settlements and for the use of pastures (walking distances of animal species). The technical design is not different whether done under emergency or disaster preparedness. The implementation modalities look for a higher involvement of the concerned communities in planning and realization leading to a stronger appropriation of the assets seen as a main factor for their durability. Priority is given to traditional technologies rural populations are familiar with, including technical adjustments for an easier use and better protection against degradation over time. Boreholes and motorized pumping systems demonstrated over years a short durability and are considered only where the output from other means does not cover the needs.

## Water points mapping

In one district of Kenya the mapping of water points has been undertaken in close collaboration with the public Water Department. It consists of updating information through an inventory of active, abandoned, dried up and newly constructed water points, with their respective technologies, management modalities, user-communities and estimated yields over seasons.

This activity makes the updated information on water resources in the district available to any public or private actor and provides basic data for a regional planning of water use and development. It is a perfect example on how DP can lay the foundations for future developments, through a time-limited operation while at the same time reinforcing the management capacities of the public department in charge of the sector.

## Shallow wells in rocky river beds

Shallow wells are common in all ASAL areas, except in the vast plains of the eastern part of the GHoA where the thickness of permeable sediments drain the water layer to depths that cannot be tapped. The purpose of shallow wells is to reach water trapped in the silt of temporary streams (laga), or in the cliffs of the rocky underground. Usually not exceeding 15 to 20 meters, they are fitted with steps hollowed out along the wall to accommodate men that form a chain to take out the water with buckets passed from one to the other up to the top. The songs of the men giving rhythm to the extraction of water have made these wells known as "singing wells". The depth of well is identified by the number of men necessary to form the water chain, i.e. approximately 1.50 m each.

Specialized well diggers can be found in each clan and there is technically not much to add to this well known hand work. Nowadays well diggers use modern hand tools of high quality steel and pulley systems to extract the lose material. A shallow well is always the private property of an elder and the property will be transmitted to its descendants. Water belongs to nobody, but the well remains a private property and the owner decides freely to whom he allocates the right of use. Generally the usage is extended to the enlarged family and households

without a water source, provided they participate in the annual clearing or other maintenance works needed. The right of usage concerns also livestock herds on transhumance against the reciprocal right in their home region. The private ownership of shallow wells explains why they are found in great numbers in favourable *laga*, like the ones visited in Korr (Marsabit district). The multiplication of wells means the spreading of herds over several places and renders watering easier.

Improving shallow wells with external funds is therefore improving a private property, even if this improvement benefits a wider group than the well owner himself. The contributions of users through labour and provision of sand and stones makes it, however, a group work.

On rocky grounds, the improvement under DP consisted mainly in building a wall around the mouth to protect the shallow well from silting when the stream runs during rains. Such protection walls reduce the maintenance work and the inlet of dust, dung from animals and other materials affecting the quality of the water. Fixed cemented troughs replace the traditional wooden ones kept by each herder. The surroundings of the well remain dry and less water is lost during handling. Simple and relatively cheap, these adjustments of a traditional system need little maintenance, contribute to keep the cleanness of the underground water and consequently public health. All in all these well improvements make living conditions in rural settlements better and their utility is obvious. But in how far they contribute to a better drought preparedness remains a question of individual judgement. The access is facilitated and the quality is improved, but the quantity of water remains the same. Why such simple and low-cost precautions known by the pastoralists are not realized by themselves could not be explained (syndrome of free distributions?).

The technical designs observed suffer imperfections. The height of the protection walls are quite variable and surprisingly lower in the middle of the *laga* than on the banks. Apparently no judicious estimate of the maximum water height during floods preceded the construction. The shape of the walls is round with no consideration of hydrodynamics forces of flooding waters, which exert on that way a higher pressure able to brake the walls and provoke whirls that might overflow the protection. How many of these well protections will still stand after two or three rainy seasons will indicate the quality of the construction work.

#### Shallow wells on sandy river beds

In bigger rivers with large beds, like in Lokiriama (Turkana district) people dug the deposited sand to reach the trapped water. However, the depth reached is generally low because of the unstable sand easily falling back. The water collected in small quantities is mixed with fine sediments and of poor quality and watering a herd is very time consuming. In this case the improvement consists in a well lined up with preformed concrete rings that allow to reach the bottom of the sand layer and guarantee higher volumes of water. The water filtrated by the sand is taken from inside the well and not spoiled during collection.

Water is extracted with a bucket and a rope, or an additional pulley. Sometimes users prefer to cover lock up such wells to avoid usage by unwished people, or even poisoning in the case of clashes between clans. Another alternative is to fit closed wells with a hand pump. Contamination is prevented and a manhole provides access for maintenance. Hand pumps are easily operated by children, whereas pulley systems need the strength of adult people, thus making

water collection less easy. Both alternatives represent a significant improvement and increase the access to water in terms of quantity, quality and duration of seasonal availability. This type of "sand-bed" wells translate in a higher water security, but involve higher costs of construction. The maintenance of hand pumps subject to problems in past years is now under control of the users, spare parts are available and the fabric of the equipment is reliable.

Lined up wells are also found on the banks of rivers where they are less subject to flooding. The ones built under DP and visited in Turkana were fitted with a roughly made pulley and chain system too heavy to be used by children. Adults welcomed the well, but declared the pulley system unsuitable.

## Shallow wells on free ground

Shallow wells are mainly found in the vicinity of settlements in agro-pastoral zones where the chances to tap into underground water are higher than in arid areas. Southern/Central Oromiyia offer a good example of such wells (*Ella*). Of a wider diameter at the summit than shallow wells in river beds they reach more impressive depths (up to 40m) compensated by a sloppy access dug on the side that reduces considerably the elevation for extracting the water. A chain of several men elevates the water from inside the well and pour it into a earthen trough installed along the mouth. A wooden roof protects against pollution by falling leaves of surrounding trees or other materials. The design and the regular maintenance of these wells keeps the water generally clean. Some of these wells are known to exist since centuries. Because of their size and the maintenance work these wells belong to a community. The committee of elders decides about management, use of water and access for foreigners (moving herds). It is not advisable that partners come in with new concepts of water users association in places where such a communal management is functional since generations. Support services should only be considered when requested by the committees.

Improvement possibilities of such wells are very limited. Building concrete troughs would reduce the spoiling of water and stabilizing the ground of the access way could reduce the inlet of muddy surface water during heavy rains but without increasing the available quantities. Digging "modern" wells (cylindrical hole, instead of the traditional conic design) as seen in Southern Oromiyia adds to the water security. But in that particular case, did the level of water consumption of the community justify a new well next to the 5 traditional ones still in use? A convincing answer could not be obtained from the NGO in charge.

In Northern Turkana similar shallow wells in a bushy area were observed, but less deep (4 to 6 m). The improvements provided consisted in plastering the wall, stabilizing the side steps with concrete and installing a small concrete trough and a barbed wire fence. The trees overshadowing the mouth of the well were not removed and falling leaves, fruits and woods pollute the water. How this sort of cheap work adds to water security remains unclear. The attitude of the elders interested in nothing else than "when ECHO would come with the borehole" is not very encouraging for pursuing activities in that community. It was an example of a top-down approach not responding to a need the beneficiaries were really conscious of.

# The extraction of water and the management of shallow wells

Looking at the labour involved in watering animals from shallow wells one might think about installing a mechanical system or a pump to ease what a foreigner could consider as a tedious and time consuming work. However, in all community meetings, elders insisted to keep the traditional way of fetching water manually. The work done in common is a fundamental factor of preserving the sense of solidarity and the strength of the community. Hand pumps concern domestic water fetched individually and constitute so far no threat to the spirit of solidarity. Boreholes represent a useful system introduced by foreigners and accepted in specific locations where traditional methods are inefficient. But mechanizing the traditional watering of herds would dismantle the communal spirit, which remains the backbone of the pastoral system. In addition the human chain for fetching water in shallow wells yields more water than hand pumps or pulley systems.

Projects should therefore not try to "modernize" without discernment existing methods that might look obsolete to people coming from another culture. Over time, social and economic factors might drive pastoralists to adopt new methods if suitable. Meanwhile, it is important not to disturb, but to respect functional social and production systems.

#### Water pans

Pastoralists use handmade water pans of limited capacity in locations where impermeable soils can retain the surface water collected. Their purpose is mainly to make water available where natural water sources are lacking or wells could not be dug, or were not justified by the limited potential of the pasture. The water, even though muddy, is also suitable for human consumption,.

Mechanical means allow to plan for much bigger capacities and utilizations that were out of reach before. Water pans are found around settlements with insufficient wells (Dambala, Sololo), or in areas where the depth of the aquifer does not even allow for boreholes (Hurri Hills, Somali Region of Ethiopia). Such temporary water sources can open unused pastures or facilitate transhumance and trade of livestock, especially for cattle that cannot standout more than two days without water.

In that field, DP takes over a technology already widely applied by the Kenyan Government, which has considerably increased the number of water pans in ASAL areas. They are considered a major tool for combating droughts and the Water Department supervises the locations where new ones should be built. The funding through DP complements an ongoing operation initiated by the Kenyan Government and expanded after the drought of 2006. In Ethiopia and Uganda, a similar involvement of the governments was not observed.

The mechanical equipment and the level of investments involved makes it difficult to organize such works through a community approach and specialized companies with the adequate mechanical equipment are engaged after a bidding process. Handwork, like planting protecting trees or fencing, represents a negligible part of the construction. But beneficiary communities commit themselves for the protection of the site and the regular clearing of silt to maintain the storage capacity.

However, the size of the water pans has never been planned according to the volume of water needed by the population (domestic use + livestock), or by the potential surface water able to be collected on a given area. The pans visited correspond to a standard plan for a theoretical capacity of 30 000 m3 each delivered by the Water Department. The depth does not exceed the standard of 4m and preliminary soil test drillings are not done deeper. Where the underground allows to do so, increasing the depth and reducing the open surface would proportionally reduce the loss of water through evaporation. On a smaller scale the design of traditional "berkad" in the Somali Region of Ethiopia demonstrate the principle that could apply also to water pans.

It is quite surprising that involved partners did not come up with a more professional approach to adapt the standards to particular situations. Realizations visited in Kenya showed other technical deficiencies: banks and silt pans not stabilized, inadequate barbed-wire fences installed, when the local thorn bushes would be sufficient, no protection of the catchments' area to reduce the speed and pollution of water, pollution of the water through the entry of livestock, extracted soil not pushed aside and eroded back into the reservoir by the rains.

In the example visited in the Somali Region of Ethiopia, the water is piped to external troughs and livestock never enters the reservoir. A gravity system instead of a mechanical pump would, however, ensure a longer durability. A strip 8 to 10m wide separates the extracted soil from the reservoir itself and provides space for planting trees to reduce the evaporation effect of wind. The catchment area is protected from grazing and the natural vegetation provides the slow-down effect of the surface water to filtrate the sediments. The veterinary centre installed next to the watering area is a good initiative for an easier treatment of animals.

Water pans can be seen as a public investment to support livestock and facilitate living production in ASAL area. Where the technical making is correct, DP contributes to increase the storage capacity and the water security of the population, thus increasing the use of grazing resources and the resilience to dry periods.

## Rock catchments

At one project site visited in Kasariya between Kargi and Maikona (Marsabit district), a natural site used since generations was upgraded. The improvements consist mainly in desilting the natural rocky basin and to elevate a stone wall at the outlet to increase the storage volume.

This water point is a stage on a main transhumance and trading route for herders even coming from very far. A community approach would be impossible in this case because the users are spread on a too wide geographic area and the utilization of the water point is not regular. The melioration brought in by DP corresponds to a public investment facilitating the herding and trade of livestock. Technically easy to realize, the rocky support provides for a long durability. The maintenance should theoretically be assured by the Water Department, but no guaranty is given for that. Where possible, rock catchments are a more durable and easier option than water pans and implementing partners should further enquire about potential sites. The bottom of rocky hills and mountains offer a number of favourable sites.

#### **Berkads**

Berkads are a traditional family owned water storage facility in the Somali Region of Ethiopia. They consist of an open tank up to 150m³ capacity dug in the ground and tightened up by walls made of concrete blocks to collect the run-off surface water during rains. They reach depths of three to four meters and stairs built inside give access to the water. Some are covered by branches and bushes, sometimes corrugated iron sheets, to reduce evaporation and the pollution of water by the frequent sand storms. In the region of Harshin, two additional *berkads* are planned in each of the settlements of the project area. They were said to provide an average increase of around 12 % of the existing storage capacity. An interesting innovation has been introduced by the implementing partner. Where the ground is rocky and stable, instead of using expensive concrete blocks, a metallic wire netting is lined up along the walls and plastered with cement. The total construction costs are reduced by about 2/3 and makes the system thus affordable to families with low revenues. However, it will need two or three years to test whether this system will resist and be less affected by cracks than the usual concrete block construction.

The same partner indicated that around 65% of the existing *berkads* in the intervention area have been abandoned. Reasons mentioned are: displacement of families, cracking of the walls, lack of means for maintenance and repair, expansion of settlements occupying the catchment area. It could not be stated whether repairing existing ones would have provided a greater storage capacity with equivalent expenditures, and whether abandoned ones could not be allocated to other families. How long the new ones built under an associative status will last is a question for the future. The operation looks artificial and more dictated by an emergency approach than integrating the concern of LRRD principles.

#### *Underground tanks*

A number of underground tanks exist in Forole (Kenya/Ethiopia border), a small town, which developed from a former military camp in a zone without wells. Most of them have been built over years by humanitarian organizations, some are private. They consist of a 50 m3 round concrete tank constructed in the ground and covered by a concrete roof supported by 4 to 5 pillars. Water is fetched through a metallic manhole locked for security. Aligned at the bottom of a vast gentle slope they collect the surface run off water. To provide for the increasing population of this isolated town, DP is funding the construction of new community underground tanks.

The question whether these tanks respond to an increasing need of water, or whether new families settle in that town because tanks are constructed, could not be answered. But an uncomfortable situation is predictable in a not too long term: livestock is the only livelihood in that remote place and increasing the grazing resources is hardly feasible. Even with water available for everybody, there is a high risk of an expanding economic poverty and creation of a chronic food emergency if people continue to settle in this place with limited resources.

In Arero (Oromiyia), a similar type of underground tank, but with a capacity of 100m<sup>3</sup> and still under construction was visited. It is intended to supply the needs for a 30 households community using this area temporarily and otherwise depending from an old, but functional and well maintained open well (*ella*). The construction of the tank is the same as in Forole.

But to preserve the cleanness of rain water, an area of 200m<sup>2</sup> of stones jointed with cement has been installed, and leading to the tank through an over-dimensioned silt trap. The design is technically correct, but the costs involved are apparently out of scope for the beneficiary families. The replication by neighbouring communities without an external support appears highly improbable.

An open water pan dug previously by the same community could be found next to the underground tank under construction. Its filling is ensured by the surface water coming down from a long slope. It would probably have been more cost effective to increase the capacity of this existing water pan to cover the temporary needs of both humans and livestock. A simple water filtration system can clean the water for human consumption. Such an asset could easily be replicated in that hilly region where water pans are commonly installed by communities with own means.

Another similar underground water tank was visited in the same area.

## Surface water tanks

They are mainly used for collecting rain water from roofs of schools with a sufficient area. Prefabricated plastic models with capacities of up to 100m3 are more frequently used nowadays, but concrete tanks are still constructed. Plastic versions need to be transported from main capitals where they are produced, but are quicker and easier in installation. Said to be UV resistant, nevertheless they start degrading after two to three years if not put under shade or protected from the sun by mats or any other mean . The outlet pipe at the bottom is often fragile to shocks and cracks are not easy to repair durably as they need a specific glue.

Such water tanks greatly improve the education conditions in places distant from water sources where the transport of water by humans or animals is not always easy to organize. Availability of water in primary schools is also the opportunity to teach basic health principles to pupils.

DP is supporting the installation of concrete tanks and participates on that way in the improvement of the education in rural settlements. Accompanied by adequate trainings of teachers for the education in water management, such investments represent a contribution in the long term to raise the awareness of younger generations on the fundamental issue of water in ASAL.

#### **Boreholes**

A number of boreholes have been installed by the government, the missionaries or aid agencies throughout ASAL areas. Those supplying religious missions or towns with an active Water Department belong to the few still working. The durability of the borehole managed for over 20 years by a strong users association in Logologo (Marsabit district) is somehow an exception. It is the only reliable water source in a wide area able to service a settlement on the main road to Marsabit that became permanent because of that borehole. An equally old borehole some 50 km away in the Kaisut desert has been repeatedly repaired by NGOs and projects, but never succeeded to function for long. Situated in a typically short term rainy season grazing area, water there is of no use for the greatest part of the year.

Boreholes are often seen as a solution to water deficiency that would facilitate the living in ASAL. Users associations have been set up and trained on maintenance and management, but the expected results were rarely met. The technology goes beyond the usual scope of command in rural areas. Over years the knowledge on mechanics, electricity and water pumps has spread even to remote places and would allow a proper maintenance of the generators and external installations of a borehole (gravity tank, distribution pipes, taps ...). But the regular maintenance of the immerged pump requires a particular equipment owned only by Water Departments or specialized enterprises. The boreholes are most of the time distant and the interventions are costly. The amount of fees collected and managed by the ad-hoc created users association is most of the time insufficient to cover the expenditures as cash is always scarce in rural communities where barter is still widely practised. From a social point of view such Water Users Associations represent an artificial body within the community and their utility is not fully appreciated, especially where alternative water sources depend on cheap traditional rules, which require no contribution in cash.

Because of their direct influence on attracting people for a permanent settlement and their direct linkage with desertification in ASAL, boreholes in rural areas should be considered only after having exhausted all other alternatives on ground, surface and rain water collection, and where the natural resources or economic potentials justify the investment. DP has therefore done well in giving the priority to the improvement of water points at the scale of the concerned communities. Partners should scrutinize with a pragmatic approach all the possible alternatives where the water supply is insufficient before going for standard solutions.

#### 9.2.1- Relevance

In pastoral areas the water security of humans and livestock are intimately linked. Only the required quality and quantities are different. Sedentary rural settlements grow in number and size and the parameters of water supply change, while the necessary mobility of herds follows its own requirements. The numbers of human and livestock populations show a lack of accuracy and make the evaluation of needs and shortages of supplies a hazardous exercise. The notion of sufficient availability of water is subject to a broad interpretation and the mission had no means to assess the relevance of increasing the supply of water where it is done by DP projects, except for specific cases like schools. The assessment concerns therefore the approach followed by partners, the choice and geographic distribution of water systems and their usage by beneficiaries.

- DP has appropriately given the priority to traditional water systems which beneficiary populations know how to manage and can ensure their durability. Improving the layout of traditional wells facilitates their usage and protection against pollution.
- Decisions by projects to add water sources rely apparently more on the demands expressed by populations than on a proper quantitative estimation of needs. Some projects end up in duplications (newly built well next to 5 existing ones, rain water catchment next to an existing water pan). Water pans and underground tanks follow standard designs with predetermined volumes not adapted to local needs and their cost/benefit ratio is questionable.
- Improved shallow wells contribute to a better water safety and, in the case of shallow wells in river beds, to a more efficient usage of the available ground water.

- Strategically located water points (pans, rock catchments) facilitate transhumance and live-stock trade.
- The ecological consequences of a higher water security for increasing permanently settled populations in locations where natural resources cannot afford such a pressure have not been considered. DP risks here to participate to the desertification process.
- Rain water collection in schools contributes to better education conditions.
- Coordination/duplication with projects from other agencies could not be estimated

# 9.2.2- Coverage

DP had no objective of full regional coverage, but rather to demonstrate approaches in specific and appropriate locations throughout the GHoA.

#### 9.2.3- Effectiveness

- Projects seem to individually achieve their purpose. In Kenya, planned projects have to be approved by the District Steering Group and coordinated with other operations. The effectiveness of the project purpose is thus secured. But the agenda of the DSG might be different from the one of DP projects.
- The environmental risks of increasing the number and total output of permanent water sources were not sufficiently scrutinized and accompanying measures that could reduce these risks have not been integrated in projects (natural or artificial improvement of fodder production around permanent settlements) in spite of desertification effects observed over many years. Projects can thus contribute to the degradation of the environment and impede on drought preparedness and disaster risk reduction.
- Water management practices have not been introduced. Nothing is done to increase the replenishment of aquifers or to reduce the run-off of surface waters. Activities in the water sector are only conceived from the point of view of exploiting the resource with no concern about the durability of the resource.

# 9.2.4- Efficiency

- The quality of works is deficient in many cases and will affect the sustainability of installed assets. The lack of project personnel with the appropriate skills renders monitoring of contractors inefficient and leads to spoilage of funds.
- Installed assets are not planned according to quantitatively identified needs, but follow standard designs without consideration of the cost/benefit relationship and sufficient analysis of possible more cost effective alternatives.
- The involvement of Water Departments concerns mainly planning and exchange of information, sometimes training of beneficiaries. Supports to follow up later the projects' realizations and ensure their sustainability is lacking.

- The financial and administrative management of projects by the implementing partners could not be evaluated.

## 9.2.5- Impact

At this stage the impact of the projects on the resilience of pastoral communities to withstand drought can only be guessed. At the micro-level, a secure water supply means a higher chance of passing a drought. On a regional level, the lack of water management practices in an environment seriously affected by erosion translates into a high proportion of rainfall lost through surface water run off and a lower replenishment of aquifers leading to continuously declining yields of wells over times. Strategic new or improved water points improve the living and production conditions of pastoral communities. But from a global point of view, the management of the resource receives no attention and there is hardly any impact to be expected in the reduction of the risk of an insufficient water availability in ASAL in case of drought.

## 9.2.6- Sustainability

The sustainability of installed and planned assets can only be guessed at this stage. Traditional habits of water point management and Water Users Associations should definitively play a determinant role for assets at their level of command. But the lack of sustainability observed in WUAs was not subject to innovations in maintenance procedures appropriate to the level of livelihoods. In most cases, the dependency attitude generated by years of free handouts has not been reversed and is even comforted by the rehabilitation of damaged water points.

## 9.3- THE ANIMAL HEALTH SECTOR

Animal health represents the second most important sector of the DP activities. Projects are justified by the hypothesis that healthy animals survive drought periods better. It was decided to focus on Community Based Animal Health Workers (CAHWs) considered as a major factor for improving the delivery of veterinary services up to remote areas. It seems useful to recall the background of these auxiliaries .

Based on needs expressed in various countries, the international veterinary workshops of Bujumbura (1984) and Blantyre (1985) recognized the need to promote a structure between the livestock owners and the public veterinary services. The emergence of privatized services were linked with the necessity to apply to livestock owners the real costs of drugs and services, except for certain vaccinations. The workshop in Bangui (1988) later defined the suitable profile of these auxiliaries. In 2006, the role of CAHWs was officially recognized by OIE (Organization of International Epizootics), which governs at the international level the rules of veterinary services. CAHWs are important actors in animal health. Their status, role and relationship with other actors in livestock production systems nevertheless still need clarification to avoid drifts potentially dangerous for the public health.

The primary functions of CAHWs are to participate in vaccination campaigns, provide care for usual pathologies and interventions, manage supply and storage of drugs and inputs, assure epidemiologic surveillance and alerts in case of disease outbreaks. Other functions can be

the support to collective actions, the awareness of livestock owners and the advise in animal husbandry and the collection of basic data for public services or research.

Coming from and approved by their community of origin, motivation, availability, geographical stability and experience of livestock are common criteria for the selection of CAHWs. Their training topics include technical aspects of animal health and production, their responsibility and role within the animal sector health. They should always be part of a formal and durable structure and can then constitute a profitable complementary arm to other veterinary actors. A variety of situations are possible. But experience shows that left to their own at the end of a project CAHWs generally vanish or use their previous status for abusive activities such as the trade of illegal drugs.

Based on their certified professional capacities the recognition of their official role should always go along with the control of their activities. Livestock owners, professional associations and local authorities judge their professional capacities and services. But the regulatory control can only be made by officially agreed public or private veterinary doctors who represent the authority of the State in the animal health sector.

The activities of CAHWs are remunerated through the margin on sold drugs, the payment of interventions by livestock owners or contractual works with Veterinary Departments, like vaccination campaigns. Most payments occur in cash, but also in kind (animals). Due to the dispersion and mobility of herds in ASAL it is difficult to make a decent living out of this activity alone. CAHWs are generally part time workers, raising livestock themselves or having another activity. As long as the project which mobilised them carries on, they remain fully involved in their tasks, which confer them also a higher social status in the community. But when the enthusiasm of the beginning vanishes and the supply of drugs is not assured anymore by the project, many of them progressively abandon their role. Pastoralists are generally themselves well aware of livestock diseases and treatments, which they purchase directly from private pharmacists. This strong competition limits the CAHW's revenues, unless they are part of an organized supply structure where they can benefit from preferential wholesale tariffs, follow the technical progress and even benefit from professional refreshments. Those who perform best generally work under the patronage of an official veterinary doctor. But they all suffer from competition of the public veterinary services, which resist in trying to keep the benefits from veterinary interventions thanks to their easy access to drugs, even if they are officially not entitled anymore to do so. Governments in many countries failed to update their veterinary rules along the OIE prescriptions and CAHWs remain tolerated, but not officially recognized. Once the protection of a project disappears their survival depends on the good will of the authorities in their area.

CAHWs represent in theory an attractive option to achieve a suitable coverage with veterinary services in rural areas public departments have no means anymore to secure. Under ASAL conditions, their sustainability has never been granted, but no other feasible alternative could be found up to date. Taking over the system, the DP projects experiment new approaches that might be successful. Two types of CAHW systems have been shown to the mission.

## CAHWs in Southern Oromiyia

In Southern Oromiyia (Are Mariam), an assistant veterinary officer trained and supported by

FAO started a veterinary pharmacy as an independent trader. Linked to 12 CAHWs operating in a radius of about 50 km the business has been expanding for the last six months. The CAHWs regularly replenish their stock on a fortnight or monthly basis and some of them show quite high financial performances. They represent about one quarter of the pharmacy's turnover. The rest of the activities concern independent clients. The owner explained that main arguments of success of its shop are to be found in its reputation (he was formerly a public officer in the same town), the offer of drugs with an efficiency proven in the region and the support of FAO, well known by pastoralists. Other shops in town also sell veterinary drugs, sometimes without guaranty of origin and are less specialized. The trust in the shop keeper seems to play a major role. Having been supported by an international organization, he is not linked to one particular drug company and can freely organize his supply of drugs according to demand and wholesale prices. Using his training in veterinary science he takes the time for recommendations about the usage of drugs and treatments to be delivered, gaining on that way the fidelity of CAHWs and private clients. In return the affiliated CAHWs benefit from both the reputation of FAO and the shop keeper.

#### CAHWs in Turkana district

In Turkana, CAHWs formerly trained and put in place by VSF and left behind with negligible activities have benefited from refreshment courses and are to be included in a new scheme covering the Lokiriama region. Here the partner facilitated the establishment of a memorandum of understanding with a well known international drug company having a representation in Kitale (Coopers). However, the MoU could not be obtained from the implementing partner.

The CAHWs formed an association to group their needs. The drug company would supply at monthly intervals to their drugstore located in Loma (presently under construction). The drug company provided part of the business training, didactic material and some free drugs for demonstration purposes. They promised also the opening to other providers and to be intermediaries for drugs they do not produce themselves. The project funds will provide the start package for each CAHW. Arguing about the lack of confidence in working with CAHWs new to them, the representative of Coopers insisted that supplies will have to be paid in cash at delivery. Only after at least one year experience could commercial facilities be envisaged (prices, delayed payments). The District Veterinary Officer in Lodwar expressed serious concerns about that contractual relation binding the CAHWs to one single company. Asked about his supervising role, he admitted to have no means to control in the field the activities and competences of the CAHWs and that the drugs and products they sell are also out of his practical control.

In Oromiyia, the activities began only at the beginning of 2007 and they have not yet started in Turkana . To evaluate any measurable impact is not feasible at this stage. The principles of the two operations are quite different. In Oromiyia, the veterinary pharmacy started by an independent professional remains under the control of an international organization certified in veterinary science working closely with the public veterinary department. In Turkana, one particular drug company benefits from an extension of its commercial network initiated by an implementing partner without a veterinary doctor and the district reference veterinary doctor is not given the means for supervising the operation as would be needed.

The efficiency and outputs of each of the formulas will only be seen later. However, the sec-

ond one entails a higher risk of CAHWs left on their own after the end of the project and open to deviations feared by OIE. A stronger involvement of DP in upgrading the supervision capacity of the District Veterinary Department could certainly reduced that risk while the project is running. Meanwhile DP with the support of DG-DEV should advocate at the ministry level for a stronger commitment of Veterinary Departments to the supervision of the installed CAHW networks.

The high mobility of livestock in pastoral areas is a serious hindrance for CAHWs to ensure regular revenue. They presently travel on foot and the limited distances covered generate the seasonality of their activities when the bulk of the herds are migrtated. A close follow-up necessitates a means transport. Cars and motorbikes are relatively seldom in these rural areas and their rental is unreliable. The purchase and maintenance costs of a motorbike exceed the financial volume CAHWs are managing. Pack animals (camels, donkeys, horses) have negligible maintenance costs and they could be allocated on credit by the projects. However, the solution has not yet been tested and faces sometimes customary constraints.

#### 9.3.1- Relevance

Animal health is an essential pillar of a regular and secured animal production, not only in drought periods, but as a normal husbandry practice. Increasing the number and professional capacities of CAHWs in regions not sufficiently covered by adequate veterinary services is a relevant initiative able to improve the livelihoods of pastoralists. Strengthening the health of livestock also reduces the risks of mortality attached to the occurrence of drought and the initiated system can easily be linked to a future development of veterinary services by the public and/or private sector.

# 9.3.2- Coverage

In Oromiyia, the raising sales of drugs tend to prove that the demand is not yet covered. Epidemiological data are not yet sufficient to appreciate the quality of that coverage (reduction of the disease incidence, adequacy of drugs with observed diseases, ...). The lack of a reliable livestock census and the insufficient knowledge on the individual husbandry practices are further difficulties for measuring the coverage in the project area. From a regional point of view, the coverage by the projects (Oromiyia and Turkana) represents only a small fraction of what would be needed.

#### 9.3.3- Effectiveness

The objectives of the projects in terms of CAHWs and delivery of trainings are on the way to being achieved. The quality of the trainings could not however assessed. Interviewed herders appeared satisfied but in Turkana they complained about the limited variety of drugs proposed by CAHWs forcing them to look for other sources (urban pharmacies).

The supervision of CAHWs by a reference veterinary doctor, as stipulated by OIE and Veterinary Departments, is the weak point of the projects visited, albeit better in Oromiyia than in Turkana. DP has provided funds for expanding the network of CAHWs, but no means have been planned for their supervision by the Veterinary Departments where the only certified veterinary doctors can be found in ASAL areas. The system put in place is limping on one leg, instead of standing on the two pillars of an efficient veterinary service. In the long term,

the lack of supervision entails the risk of deviations with their consequences of public health and emergence of disease resistances to drugs.

## 9.3.4- Efficiency

Planned activities are on the way of realization, but the start of the projects have been delayed and the original duration extended. Coordination with administrative and technical authorities is provided, with other projects where they exist. Internal management aspects of the operations and partners could not be assessed.

## 9.3.5- Impact

The impact of the veterinary services delivered by CAHWs on the livestock health in the concerned areas can not yet be measured. A particular effort is required from CAHWs and their supervisors to monitor accurately the numbers and the health status of livestock in the project area to provide reliable figures for the assessment. The adequate monitoring tools and training should be provided by the implementing partners.

The long term impact of the system is, however, dependent from the sustainability of the system, which has yet to be demonstrated, and of an effective field control by a veterinary doctor, which is provided only in one of the cases visited. The availability of water and feed resources will also have a combined impact on the health status of livestock.

## 9.3.6- Sustainability

The sustainability of CAHWs in the difficult environment of ASAL remains a challenge. The close follow-up of herds moving through wide areas would increase their business and contribute to the sustainability of CAHWs. But the cost of motorized transport means exceeds their financial capacity and the usage of pack animals has not been introduced. The presence of an active livestock market at a reasonable distance attracts herders to sell animals and to have a more regular recourse to veterinary services. The commitment of the Government for a durable supervision by the Veterinary Department would increase the chances of sustainability. The initiatives introduced by DP open expectations, but the sustainability of the system has yet to be demonstrated.

#### 9. 4- THE SECTOR OF CONFLICT RESOLUTION

Peace-building operations conducted in Northern Marsabit District (conflicts between Boranas and Gabbras) and in Western Turkana (conflicts between Turkanas and Karamajong) have resulted in satisfactory agreements between the parties. In Marsabit, building up and supporting traditional peace-building practices (peace settlement meetings between elders) has been successful. Conflicting tribes found a common ground of understanding even after the massacre of a village (more than 100 people killed) that occurred two years back. The same base of livelihoods and a common culture (songs, dances, tales, habits) that supported in former times intensive exchanges became again decisive entry points for people accepting each oth-

ers. The agreement was finalized during a big celebration where not only all traditional leaders were invited, but also Members of Parliament and District Officers from both sides of the border.

At the Turkana/Karamoja border, the conflict had ended before the onset of the DP project. However, the dialogue between the parties is regularly supported by the project to deal with minor clashes occurring here and there. Commercial exchanges across the border are expanding and Karamjong people attending the markets in Lodwar make a stop-over in Lokiriama.

Communication plays an essential role in settling rivalries. This does not only involve bringing people together to meet and talk. Improved physical communication means (roads, transport means) are most important factors to facilitate regular contacts and trade between groups that leads to a better reciprocal acceptance. The commercial linkages between regions constitute a decisive factor of peace in pastoral cultures. The improvement of secondary roads through labour intensive micro-projects not only promotes economic activities but contributes also to consolidate the fraternity between former rival groups. The recommended intervention of DP in that sector for Phase II finds its full justification here.

#### 9.4.1- Relevance

The relevance of these project activities achieving peace between conflicting clans is obvious.

## 9.4.2- Coverage

Project interventions covered all the groups involved in conflicts and the inclusion of all leaders was key to elaborate a peace agreement satisfying all members of the clans.

#### 9.4.3- Effectiveness

The result obtained is a good indicator of the effectiveness of the approach. The confidence in the project manager who conducted the operation by the populations on both sides secures the follow-up and the smooth settling of differences that might still appear.

## 9.4.4- Efficiency

Compared to the achievements, the costs and time invested in the peace process are negligible

#### **9.4.5- Impact**

The recovered peace has a direct positive influence on the livelihoods and the redeployment of economic activities in the region. It secures also the exchanges between Ethiopia and Kenya and Kenya and Uganda. The Ethiopian/Kenyan border town of Moyale benefits also from the revival of commercial activities. It serves as an example for the latent disputes on the border between Kenya and Sudan, which have not yet found a definitive and consolidated end.

# 9.4.6- Sustainability

Besides other minor reasons the conflicts mainly emerged from the access to pastures and water points, becoming short for both tribes used to migrate with their livestock between their respective territories. The combined effects of the population growth and consecutive droughts have brought the commonly used pastoral areas at the verge of their carrying capacity damaged by years of an inappropriate management. The conflicts actually reflected the struggle for survival of communities with no alternative livelihoods.

The peace-building process engaged by the projects initiated a major step in settling the conflicts. But it is only the first one.

The favourable rainy seasons after the drought of 2006 provided consistent grazing resources, which certainly played a role in consolidating the still fresh peace agreement. The strength of a peaceful living together directly depends on the level of natural resources available to support the livelihoods in both communities. The delivery capacity of water points needs improvement and a judicious geographic distribution will contribute to an efficient use of pastoral resources. But the major factor of secured livelihoods is the restoration of productive grasslands in close collaboration with the communities. It concerns bush clearing, adequate management of pastures agreed between the two communities, enclosures for generating onstock fodder reserves, over-seeding degraded pastures around settlements. While in the Borana region spotted agro-pastoral potentials offer attractive complementary perspectives including hay production, a lot can be done in Turkana for the water security thanks to subsurface dams and water management practices to hold back in the region surface water that otherwise gets lost flowing away.

The sustainability of peace is in both regions conditioned by the development of an active livestock and agro-pastoral economy. DP has the capacity to initiate the revitalization of these major pastoral areas, the key factor or maintaining peace. The close collaboration with the KARI research institute in Marsabit is key for translating scientific knowledge into practice through an LRRD approach demonstrating the first steps of long term development measures that can be taken over by DG-DEV.

#### 9.5- THE EDUCATION SECTOR

Education is promoted via school feeding, roof water harvesting structures, latrines, dormitories for arid land areas, appropriate holiday periods (linked to pastoral seasons) and appropriate curricula. In the long run, education will provide "skills and knowledge to enable pastoralists to know more about how to improve their pasture". In the very long run, education will also facilitate out migration thereby adapting the populations to the available resources.

School feeding promotes education by acting as an income transfer. Linkages between education and diversified livelihood opportunities, health, nutrition, childcare practices and child spacing are strong. Girl child education incorporates long-term food security implications. School feeding increases child access to calories and micronutrients and increases their capacity for learning and strengthens and broadens future livelihood portfolios. As educated parents are more likely to send their children to school, it can in the long-run, promote the culture of schooling regardless of the presence of school feeding. Where children are known to miss

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school in order to generate incomes for their families, school feeding is discouraging and acts as a form of income (or food) generation. School feeding directly counter balances poverty, which discourages access to education.

The Livestock Early Warning System in Ethiopia has a school-based weather monitoring programme to raise awareness amongst pastoral children of the cause-effect relationships of emerging drought, which they might transfer to their parents. The programme also provides for capacity building within key research and early warning systems.

Education belongs to the basic instruments of development. However, the advantages of an LRRD approach in that sector could not be seen. The construction and operation of a school relies on the same principles under an emergency or a development situation and the need for a transitional approach linking the two is a matter of theoretical thinking far from reality. Most important are the level of commitment of governments and the financial capacities and interest of the elders.

The general relation between education and disaster preparedness is obvious, but the capacities of DP in that sector are too marginal to consider education as a pertinent object with a measurable impact. The activities in the schools visited were typically educational and social and the provision of water, albeit essential, done on a too amateurish way.

Where water is needed in schools, the installation of assets should be left to those who have the professional skills to do it properly.

The education sector as such is out of the scope of the central concerns of DP and leads to a pointless dispersion of means and efforts. Education should not be considered for Phase II. Where the water supply in schools needs improvement, the works can be done through a project working in the water sector/