



Boru Malicha is a traditional forecaster who consults a variety of signs – the night skies, the behaviour of animals and birds, and the entrails of slaughtered livestock and poultry – to forecast the coming weather.

## BRIEFING NOTE 6: FORECASTING, EARLY WARNING AND EVENTUAL HUMANITARIAN RESPONSE

Given the fact that over the five years of NRM-Borana project operation, there have been three years of drought, preparedness for the impacts of climate change is clearly important. To this end, the project worked with other development actors in the Borana zone to combine the knowledge of traditional forecasters and meteorological experts in meetings that used a Participatory Scenario Planning (PSP) approach. Such meetings were held biannually, before the expected long and short rainy seasons, over the years 2019–2021. The jointly agreed likely scenario was then relayed to the communities. Two aspects of this are noteworthy:

- The project's initiative in facilitating collaboration between other development actors – notably CARE and HEKS (through its local partner GDPI, Gayo Pastoral Development Initiative), to cover all 13 *woredas* of the Borana zone
- The recognition of traditional methods of forecasting as valid and complementary to meteorological data.

### THE PARTICIPATORY SCENARIO

#### PLANNING PROCESS

The PSP meetings were held in the zonal town of Yabelo each year in February/early March prior to the long rainy season or *Ganna* rains, and again in September, prior to the short rainy season or *Hagayya* rains. They comprised a gathering of some 100 to 200 persons (the numbers of *kebele* staff attending varied). Key invitees were tra-

ditional forecasters, usually numbering around 20, and two meteorological experts from the Awasa office of the National Meteorological Agency (NMA), which covers the Borana zone. Other participants (aside from NGO project staff) were drawn from 46 *kebeles*: the 16 operational *kebeles* (from five *woredas*) of the NRM-Borana project; 24 *kebeles* (from a further five *woredas*) covered under CARE activities; and six *kebeles* (from three *woredas*) covered under HEKS-GPDI activities. In addition to the *kebele* administrators, participants included women's representatives and government staff from different offices such as those for women and child affairs, livestock, disaster risk management, education, health, pastoralist development and agriculture.

From the second meeting onwards, the meetings began with a review of the previous forecast compared against what had actually happened. The fact that predictions proved to be broadly correct served as a vindication of the PSP process. One example – that for the long *Ganna* rains (March to May) of 2020 – is given in the text box. It was one of the wetter, more productive seasons throughout the period of operations of the NRM-Borana Project.

The review of the previous rainy season was followed in each meeting by a session at which the traditional forecasters spoke. These men (they are all men) generally specialize in one of three different techniques, although some use all three. One technique focuses on astrological indications in the night sky; another entails observing the patterns of animal behavior, including different bird songs; whilst a third technique is based on an examina-

## Impact based forecasting for the 2020 March – June *Ganna* rainy season

Traditional and scientific forecast of weather impacts	Observed weather impacts
<ul style="list-style-type: none"> <li>• Adequate but not excessive rain, allowing for grass growth and crop cultivation</li> <li>• NMA data indicated below average rainfall in Dubluk woreda</li> <li>• Sufficient pasture for livestock to put on weight</li> <li>• Desert locust swarm (present at the time of forecasting) would rapidly depart, but eggs sown would result in subsequent crop and pasture damage</li> </ul>	<ul style="list-style-type: none"> <li>• Adequate rain fell over the Borana zone, resulting in good grass growth, excepting Dubluk – where rainfall and grass growth was below average</li> <li>• Livestock generally flourished</li> <li>• In many parts of Borana, there was a good harvest of maize and beans; however, the teff harvest was poor due to attack by locust nymphs (hoppers)</li> <li>• Locust nymphs caused significant damage to crops and pastures in Wachile and Teltelle <i>woredas</i></li> </ul>

tion of the entrails of slaughtered animals. Some particularly senior elders also try to relate forecasts for the coming season with past events or Gada periods. Whatever their method, the forecasters generally reach agreement – with specific predictions for each of the five traditional agro-ecological systems recognized by the Borana. Traditional forecasters include in their predictions not only the expected rainfall, but also the likelihood of disease outbreaks and of conflicts. They thus provide a rounded picture of the immediate future through their eyes.

The representatives of the NMA were always invited to present their predictions after the input of the traditional forecasters. Naturally they based their forecast on statistical probability and observed weather patterns. What was striking was that in all the six PSP meetings held, there was rarely any significant difference between the traditional and scientific forecasts, and the likely impacts. It was thus not difficult to jointly agree on an advisory message for dissemination to the wider community. Furthermore, the recognition and implied validation of the traditional forecasters rendered that message especially credible to community members.

### DISSEMINATING THE ADVISORY MESSAGE

#### – SOMETIMES AS AN EARLY WARNING

The advisory message formulated at the PSP stated the probable timing of the onset of rains; the overall amount, including the possibility of floods or drought, its distribution; and the likely occurrence of major pests (such as locusts) or diseases. This was given for the entire Borana zone, with specific forecasts for named *woredas*, if necessary. Based on this, key recommendations were made; examples are given in the text box (in the period covered by PSPs, there was no exceptionally high rainfall).

The advisory messages were then disseminated through public meetings and early warning information centers to allow agro-pastoralist community members to make informed decisions. In the case of the NRM-Borana Project, these centers were established in five *kebele* centers, each being equipped with a microphone for broadcasting their messages on market days.

## Examples of specific impact-based forecasting messages produced through the PSP

Below average rainfall, leading to drought	Normal rainfall
<ul style="list-style-type: none"> <li>• Careful management of pasture and water resources, reserving as much as possible for the dry months after the poor rainy season</li> <li>• Likely concentration of livestock in certain areas due to limited grass growth</li> <li>• Likelihood of livestock diseases arising from concentration of livestock and poor fodder availability</li> <li>• Crop cultivation only recommended for short season crops such as beans</li> <li>• Careful follow-up to initiate early warning of drought and any necessary humanitarian response</li> </ul>	<ul style="list-style-type: none"> <li>• Pasture likely to be adequate for good livestock health and widespread livestock mobility over the entire Borana pastures</li> <li>• Fodder production expected to be adequate for dairy production</li> <li>• Crop cultivation recommended for a variety of crops, including vegetables, maize and teff</li> <li>• Floods possible in specific named areas</li> </ul>

## EVENTUAL HUMANITARIAN RESPONSE

Unfortunately, a demand for humanitarian assistance was triggered three times during the project period: in 2017–2018 (failure of *Hagayya* and *Ganna* rains); in late 2020 (failure of *Hagayya* rains); and in 2021–2022 (successive failure of the *Ganna–Hagayya–Ganna* rains). It was particularly unfortunate that the project began activities just as a major drought set in, as this tended to create a “hand-out” or dependency attitude amongst some communities that took some time to overcome.

The official triggering of a humanitarian response entails several steps leading on from a negative forecast. These comprise situational assessment reports produced at woreda, zonal and regional level; a multi-agency assessment report; and then a Humanitarian Requirement Document (HRD) that is published by the Ethiopian government, classifying the hotspot areas, the overall number of affected people and the resources required. It is at this point that development agencies such as SDC can support appropriate initiatives through crises modifiers, in line with what has been prioritized by the government. However, this process inevitably takes some time.

Being present in the area, staff of the NRM-Borana project observe local conditions and are quickly aware if the situation deteriorates. Furthermore, the project has supported the elaboration of specific *kebele* Disaster Risk Management (DRM) plans. There is thus an existing, locally determined process that can guide humanitarian actions, even if a disaster has not been officially declared. Since the project budget contained a contingency fund, this allows for the quick release of funds for humanitarian efforts immediately when needed. The focus is on sustaining development achievements made by the project as far as possible and building community resilience. In this manner, the project is working at the humanitarian – development nexus.

The main humanitarian responses identified at *kebele* level and then put into action by the project when requested are as follows:

- Provision of supplementary livestock feed
- Veterinary medicines
- Direct cash transfer for vulnerable households
- Cash for work

In addition, various Covid-19 prevention activities were supported over 2020–2021. These included the provision of medical supplies, drugs and equipment for isolation and treatment centers and health facilities through the zonal health office. Items such as soap, hand sanitizer, face mask and hand-washing buckets were also supplied for the personal protection of project stakeholders.

During the desert locust swarms of 2020–2021, the project supported appropriate control measures and selective cash for work activities for vulnerable households. Then in response to the 2022 drought, the project tested a system of commercial destocking – subsidizing livestock traders to purchase animals and thus prevent a total crash in the livestock market.

## PROVISION OF SUPPLEMENTARY LIVESTOCK FEED

Whilst the project has focused considerable resources on promoting the production of livestock fodder (see **Briefing Note 4**), prolonged drought inevitably leads to shortages, impacting poorer households especially heavily. The price of animal feed – if at all available – rises to unaffordable levels. The project therefore bought hay and concentrate in bulk from highland areas, supplied it to project *kebeles* and organized its distributed to selected households. These households were chosen in an open community meeting to which all community members were invited. In keeping with the Borana tradition of *Busa Gonofa* (help to the less well off), it was agreed that women and resource-poor households should be prioritized – the households being named accordingly. The livestock prioritized were core breeding cows and calves, with the intention to keep at least these animals alive. For example, project records show that in 2017 and 2021, 4,062 and 2,974 core breeding stock belonging to 1,559 households (of whom 290 were women-headed) were provided with supplementary hay and concentrate. In 2017, this was provided at feeding centers; the approach was changed to home-based feeding in 2021 as this reduced the burden on women. Additionally, emergency veterinary medicines were supplied to 125,410 heads of livestock belonging to 2,532 households (467 of whom were women headed) including those who were not targeted for animal feeding. A monitoring exercise in October 2021 found that whilst a complaints committee had been established in each benefitting *kebele*, no complaints had been lodged. Furthermore, there was widespread appreciation for the feeding intervention – both because most of the targeted livestock had been saved (the concentrate proving particularly efficient in this regard), and because women had been relieved from the arduous task of trying to find fodder in very difficult circumstances.

## DIRECT CASH TRANSFER

Widely recognized as one of the most effective mechanisms to relieve people in humanitarian crises – at least where markets are still functioning – direct cash transfer was implemented by the project during three emergency responses, in 2017/2018, 2020 and 2021. The money was paid directly to the beneficiaries by the local partner NGO, CIFA. In total, 622 households (402 being women headed), targeted from highly affected *kebeles*, received

cash transfers. Again, the beneficiary households were selected in open *kebele* meetings, prioritizing the most vulnerable. The size of the cash transfer varied, ranging from ETB 1,500 to 2,000 (the USD exchange rate has changed markedly over the project period, but the amount may be taken as approx. USD 30–60). Follow-up monitoring indicated that almost all recipients had used the money to buy basic foodstuffs – maize, vegetable oil, sugar, and salt.

## CASH FOR WORK

Cash for work activities were implemented in three droughts (2017–18, 2020 and 2021), focusing on soil and water conservation, bush thinning and the de-siltation of surface ponds (see **Briefing Notes 3 and 4**) as means of enhancing future preparedness. These activities, which were organized and overseen by the local partner CIFA in collaboration with the relevant *kebele* authorities, benefited a total of 3,512 households (1,269 being women-headed). Emphasis was given to providing a wage labor opportunity to the most vulnerable households. Payment was made according to the volume of silt removed, the number of bush-encroached hectares thinned, or kilometers of soil bunds constructed. The amount paid was split equally between all concerned, ensuring that women and men received the same amount.

## COMMERCIAL DE-STOCKING

Tried over February to early March 2022, the objective of this intervention was to maintain the value of drought-affected livestock by facilitating sales and thus reducing livestock numbers. Twenty selected traders were subsidized in buying drought-affected cattle from four selected markets in the project area (Haro-bake, Dubluk, Eliwaye and Arero). The initial subsidy (ETB 2,000, approx. USD 40) per head of cattle was calculated as the sum needed to transport the cattle to fattening farms outside Borana zone and provide the necessary veterinary support to keep them alive to that point. However, it was found to be generous and was reduced to ETB 1,880. This increased the number of cattle bought and thus the num-

ber of households that benefited. Three categories of cattle were distinguished: in decreasing order of value, mature bulls, young bulls, and cows. Taking into consideration the different categories of cattle purchased and the changes in prices observed before during and after the intervention, it was calculated that the intervention (costing approx. USD 250,000) generated an additional cash income of approximately USD 900,000 for 2,271 households, or nearly USD 400 per household. The additional revenue was calculated by taking the average price differential per category of cattle at ETB 7,500 per head of cattle. As a further benefit, additional sales tax revenues to the local government were generated.

## LESSONS LEARNED

- Participatory Scenario Planning proved to be a widely appreciated approach that was both broadly accurate and trusted by the community, building awareness across stakeholders and setting the ground for anticipatory action. It deserves to be institutionalized into government practice.
- Whilst in Ethiopia (and many other countries), a humanitarian response can only be implemented on the request of the national government, preparedness is key to effectiveness. The *kebele* level DRM plans – an “offshoot” of the participatory resource management plans – were very helpful in this respect. The project contingency fund also allowed for the rapid release of funds.
- Participatory *kebele* level identification of vulnerable households is an effective means of appropriate targeting, building on the Borana concept of *Busa Gonofa* (help to the less well off).
- Although supplementary fodder supplies, cash transfers and cash for work initiatives are widely used in Borana and do serve to reach the most vulnerable households, they are time-consuming to implement.
- Commercial de-stocking proved to be an interesting approach that reached many households and is worth further replication.

### For further information, please contact:

HELVETAS Swiss Intercooperation  
Addis Ababa / Ethiopia  
Tel. + 251 (0)11 467 2934 35 36  
[www.helvetas.org/en/ethiopia](http://www.helvetas.org/en/ethiopia)



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Swiss Agency for Development  
and Cooperation SDC