

Women and Youth taking great strides in household resilience building using meteorological information.

Introduction

Mberengwa district over the years has experienced network connectivity challenges which has led to farmers in many parts of the district failing to access weather information from mobile networks, radio stations and television and rely mostly on outdated information or indigenous knowledge systems. Most farmers in ward 30 and 31 risked their farming approaches and choices due to this hiccup in weather information. However, as CARL 2 project was introduced in the district it set out to explore different approaches to disseminate information to marginalised areas to include the use of Farmer Field School, Farmer field Days and Agricultural Shows and the Lead farmer approach. Thus CARL 2 partnered with SMHI and MSD and LID Agency to curb this challenge which was exacerbated more by climate change.

In the 2nd year of CARL 2 project implementation, early warning and advisory on EL Nino were shared with farmers on the need to grow drought tolerant crops using the pfumbvudza concept as normal to below normal rainfall was forecasted. Mr and Mrs Hungwe of Tarisai village in ward 30 received the advisories and the forecast on weekly basis removing the previous barrier. This was facilitated by their participation in CARL 2 goat breeding group and small grain production group.

Utilisation of hydro-meteorological information on crop selection

Farmer use weather information received to plan with their family members on how they could tackle the farming season. In this case, they selected crop varieties that are drought tolerant and planted them on the big portion of their farm. They used the

meteorological information to develop the Household Adaptation Action Plan (HAAP). The family recorded the rains received in their farm using traditional means, they received the first rains on 10 October. They used the rains to plant SV4 Sorghum allocated to them under CARL 2 Climate Resilient Seed multiplication using pfumbvudza. They planted Okashana 1 (high iron millet) in December. The farmers continued to receive weather update indicating that the rain is low associated prolonged dry spells, and they made decisions favourable to them through this information.

The impact/results

After the brutal effects of EL-Nino induced drought that left the majority of small holder with zero to less harvests, The family celebrated the decision on the choice of crops they planted. This was a turnaround as in most cases Mr Hungwe and family would plant maize on a large area and small grains in a small area but due to the information received the family was guided on the best practises which they took up. In February 2024, they managed to harvest both sorghum and millet that can support the family to the next rain season.



Figure 1: Apo Hungwe, his wife and daughters in law showing their produce which they have already harvested.

The Household Adaptation Action Plan (HAAP) was successful for SV4 Sorghum planted on 1 hectare the yield was 0.85 tonnes and Okashana pearl millet planted on 1 hectare the yield was 1.1 tonnes and SC 555 maize planted on 0.85 hectares was write off.



Figure 2: Okashana 1 Pearl millet harvested ready for processing.

Mr Hungwe recalls the session that was done during the 2023 Climate Smart Field days, 'this coming season we are going to experience El Nino weather event, with normal to below normal rainfall, farmers are encouraged to grow small grains using climate smart agriculture' (*Ndakadzidza pafield day yatakaika gore rapera nezvamweka uno kuti hakuna mvura saka tinofanirwa kurima mbeu dzeshanga diki tichishandisa pfumvunza.*)

He went on to say, "I am old now and teaching my daughters in law on the principles of agriculture that work well in our area in relation to rainfall and

information received." *Inini ndava kudzidzisa varorora zvekurima zvinoenderana ne nzvimbo yedu nemvura yatinowana.*

Mr and Mrs Hungwe story became an inspiration for other farmers on how to use weather information when selecting crops to grow and to adhere to advisories. These things have really worked for their family and they are food secure during such a dry season which has also seen the nation declaring a national disaster due to drought across the nation.

The family is also a model household on gender, all family members have the same information and answers to the questions raised and understand the family vision. All the 4 CEDAW principles were observed, the father create an environment that ensures free participation of all family members including daughters in law. Decision making and freedom to associate.

The family also mastered layering, diversification, and integration of value chains. They are in poultry production (turkey and chicken), fruits production (orchard with variety of trees to include pomegranate), horticulture production, and goats' production to add to small grain production which was a sign of the nexus approach which ensures that farmers are resilient even in the face of droughts.