

# RESILIENT WATERS PROGRAM BASELINE STUDY

## RAMOTSWA

USAID's Resilient Waters Program aims to build more resilient and water-secure communities in the Okavango and Limpopo river basins. Resilient Waters focuses specifically on transboundary water security and resource management; safe, sustainable drinking water and sanitation services; climate change adaptation; and conserving biodiversity and ecosystems.

The purpose of this document is to:

- Provide the community of Ramotswa with feedback from our study;
- Highlight priority areas for Ramotswa to become more resilient; and
- Facilitate a planning session based on the information we have collected.

### RAMOTSWA AT A GLANCE

We interviewed **56 people** in Ramotswa

Most of the people interviewed were older than 35 years.

Younger than 35 (27%)	Older than 35 (73%)
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Most of the people interviewed were female.

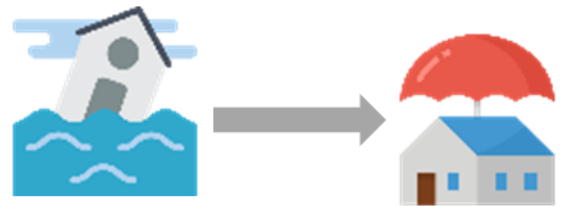
Male (30%)	Female (70%)
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In Ramotswa, **employment and craftwork** are key sources of income.

#### Understanding of resilience in Ramotswa

- ! Sources of natural shocks and stressors in Ramotswa are **droughts, floods and hailstorms**
- ➔ These shocks and stressors negatively impact households involved in agriculture and other water-based livelihoods; and result in there being **limited water for the community.**
- ★ In Ramotswa, resilience is seen as **social protection from the government.**

### What is resilience?



**Resilience** is the ability to respond to shocks and stressors. There are four dimensions of resilience.

### Absorptive Capacity



Can we **protect** ourselves and **cope** with events?



### Adaptive Capacity

Can we **adjust** the way we live after an event has happened?

### Anticipatory Capacity



Can we make a **plan** for other events that might happen to us?



### Transformative Capacity

Can we **change the way that we do things** based on what we have learned?



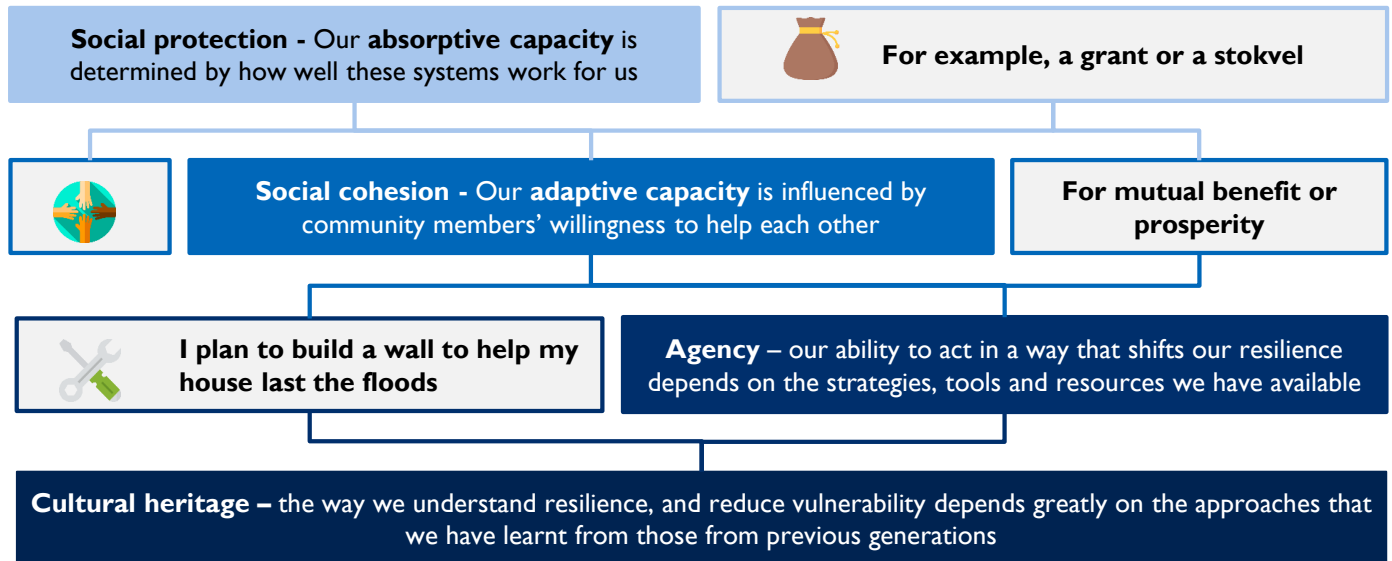
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## BASELINE STUDY

We did a baseline study in 13 communities in seven countries in the Limpopo and Okavango river basins between July and August 2019. We did this to find out how households understand resilience, how communities are building resilience, and what this means for our work. One of the areas that we surveyed was Ramotswa, Botswana. Ramotswa falls into Limpopo river basin. The Limpopo Basin covers Southern Botswana, Northern South Africa, Southern Zimbabwe and Southern Mozambique.

## WHAT DETERMINES RESILIENCE?

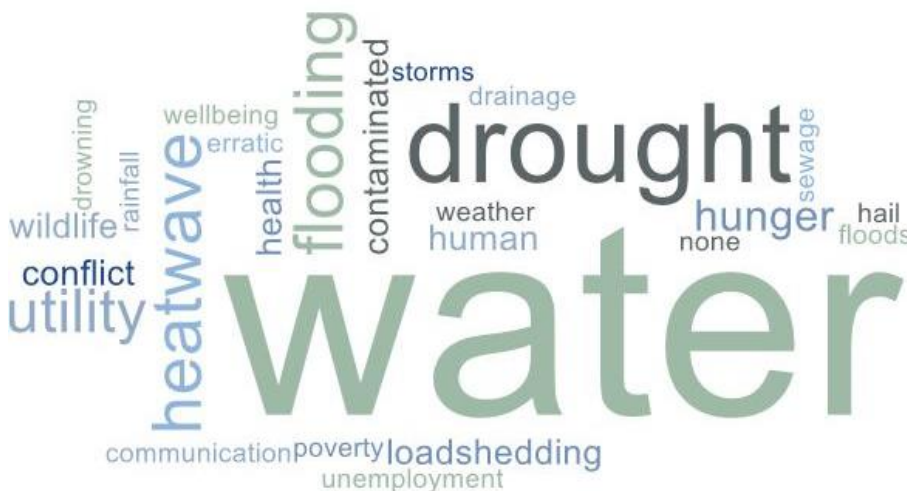
Our baseline study found that resilience is determined by four factors: **1. Social protection, 2. Social cohesion, 3. Agency, and 4. Cultural heritage.**



## WHAT DID WE FIND OUT IN RAMOTSWA?

Water shortages are the biggest challenges in Ramotswa. Natural resources are a source of food and income, but also pose a threat for households in Ramotswa. Weather and climate are the forms of shocks and stressors. The effects of shocks and stressors have been less access to food and water, less social support and less income / resources. The effects of the shocks and stressors were widespread.

## WATER SHORTAGES ARE THE BIGGEST CHALLENGES IN RAMOTSWA



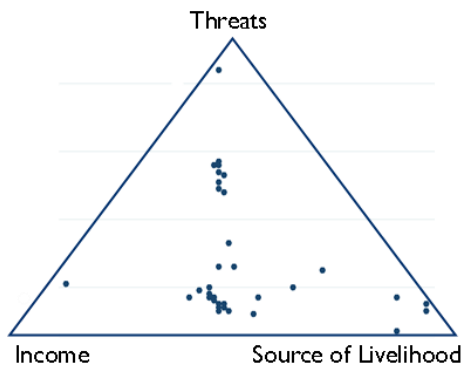
Water shortages are the biggest source of stress for households in Ramotswa. Water shortages are caused by drought. Households in Ramotswa often go for weeks without water in the taps. In addition to the drought, there are heatwaves and extreme weather such as storms and flooding.

A number of concerns were raised about water payments and the Water Utilities Corporation. Households noted that they pay a lot for water, but still do not have access to it.

## RAMOTSWA AND NATURAL RESOURCES

Natural resources are source of food and income, but also pose a threat for households in Ramotswa

The heatmap below shows that water is a source of both income and food in Ramotswa. Where water is considered a threat, it is because of the severe storms and flooding in the area.

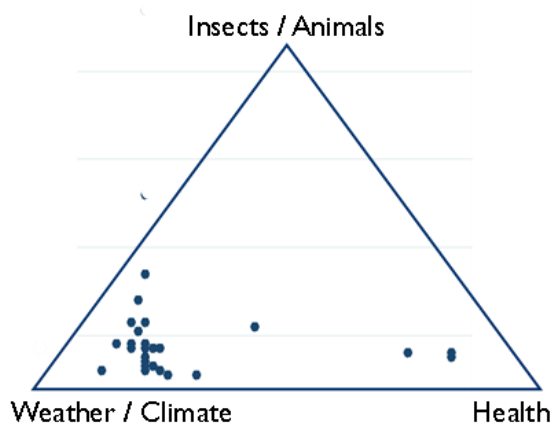


- Plants are seen as both a source of income and a source of food
- Animals are seen as both a source of income and food; and as a threat because of the human-wildlife conflict experienced in the area.

## THE CAUSES OF SHOCKS AND STRESSORS

Weather and climate are the main forms of shocks and stressors

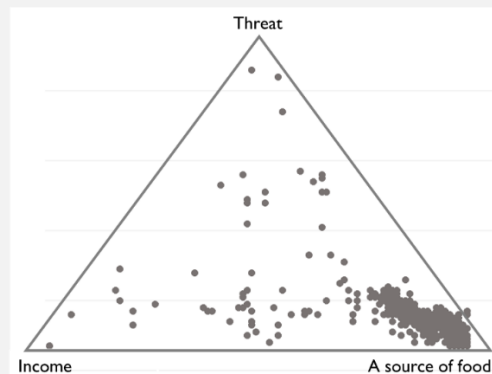
Ramotswa is heavily affected by drought conditions and extreme rainfall that causes damage to housing and infrastructure.



## RAMOTSWA COMPARED TO THE LIMPOPO RIVER BASIN

As with Ramotswa, natural resources in the Limpopo River Basin are a key source of livelihood, but can be threats.

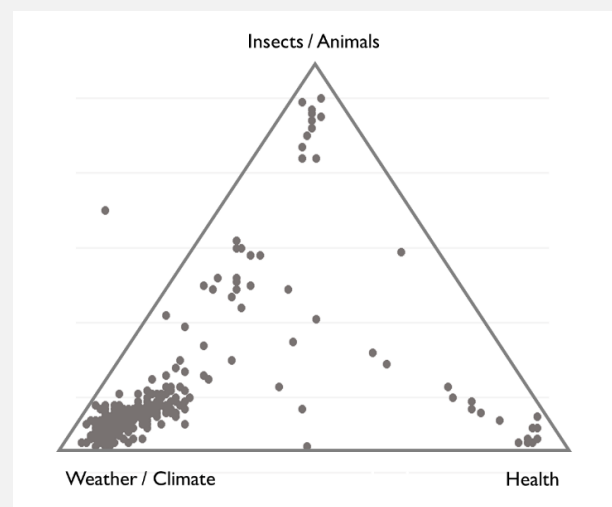
When compared to Ramotswa, water is more acutely seen as a source of food / livelihood in the Limpopo River Basin. Similar to Ramotswa, water is also a threat in that the whole basin has been subject to extreme weather.



- As in Ramotswa, plants are largely seen as the source of income and food.
- As in Ramotswa, animals are largely seen as a source of food.

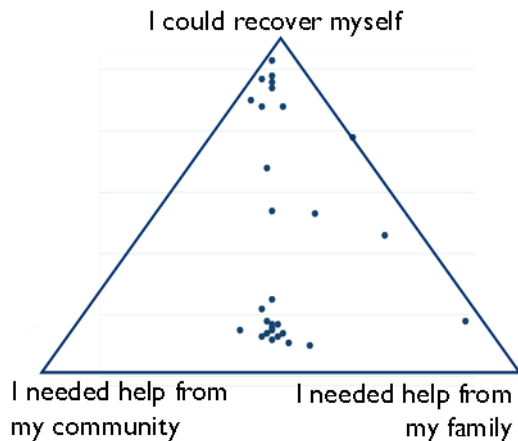
## THE CAUSES OF SHOCKS AND STRESSORS

As with Ramotswa, weather and climate are the main forms of shocks and stressors in the Limpopo River Basin. Ramotswa, however faces no shocks and stressors in the form of insects and animals. This differs from the basin as a whole.



## RECOVERY FROM SHOCKS AND STRESSORS

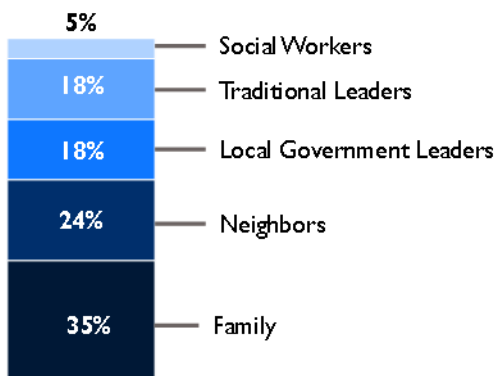
Households in Ramotswa were either able to recover themselves, or needed help from both their community and their family



## SUPPORT AND PLANNING FOR SHOCKS AND STRESSORS IN RAMOTSWA

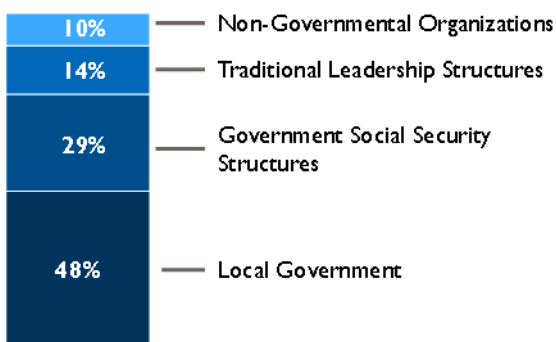
29% of households have people that they can turn to for support

There are therefore low levels of support in Ramotswa. Of those that **do have people to turn to**, most could turn to family and the community.



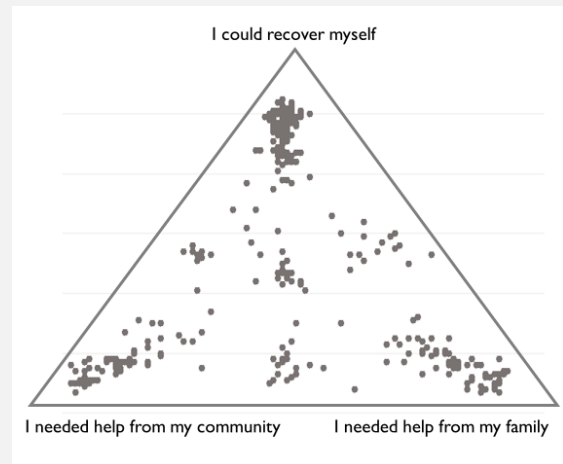
34% of households have organizations that they can turn to for support

Of the 34% who have people to turn to, local government is largest source of support.



## RAMOTSWA COMPARED TO THE LIMPOPO RIVER BASIN

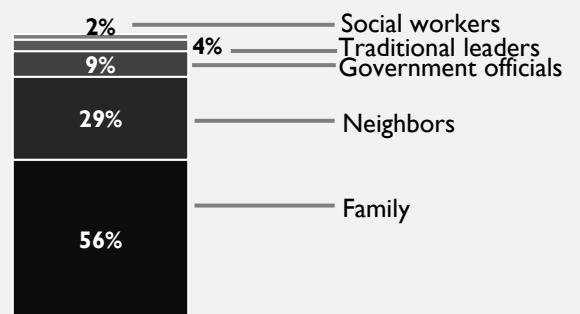
As in Ramotswa, households in the Limpopo River Basin can draw on a combination of community and family, and themselves to recover from shocks.



## SUPPORT AND PLANNING FOR SHOCKS AND STRESSORS THE LIMPOPO RIVER BASINS

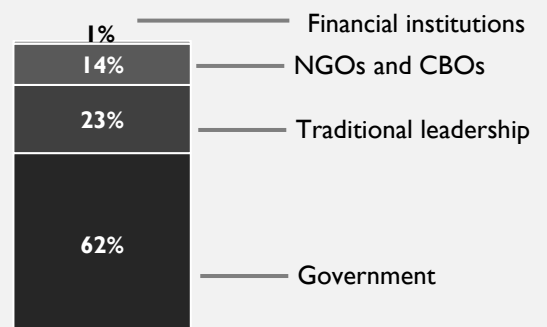
56% of households have people that they can turn to for support in the Limpopo River Basin.

This is considerably higher than the 29% in Ramotswa. Similar to Ramotswa, of those that **do have people to turn to**, most could turn to their family and community.



42% of households in the Limpopo River Basin have organizations that they can turn to for support. This is substantially higher than the 34% in Ramotswa.

Of the 42% who have organizations to turn to, the majority (as in Ramotswa) rely on various government departments.



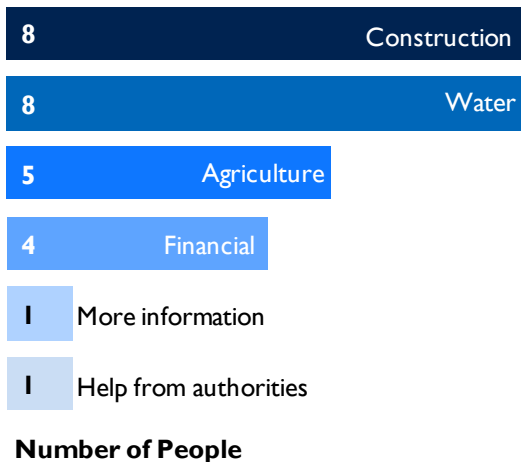
## PLANNING FOR THE FUTURE

Overall, households in Ramotswa felt **that more resources and more information would help them to respond better** to shocks and stressors in the future.

**Personal beliefs and information were critical to people's decision-making.** Therefore, there is a need to ensure that communities have access to reliable and helpful information so that they can plan better.

**46%** of households in Ramotswa **have a plan** for future natural shocks and stressors. Of the 46% of households in Ramotswa that have a plan, these plans were largely related to construction and water. The focus of these plans is on becoming more resilient to the area's droughts and floods. Example of the plans that people reported include:

- **Construction:** Fencing, diversion walls, diversion furrows and resilient houses.
- **Water:** Water sources, recycling water and water tanks.
- **Agriculture:** Planting trees, supplementary feed for livestock, drought resistant crops.
- **Financial:** Financial preparedness and finding additional income sources.



**A lack of resources and support prevents people in Ramotswa from implementing their plans.**

## HOW COULD RAMOTSWA BECOME MORE RESILIENT?

Our research has found that communities that are resilient to natural shocks and stressors can 1. Protect themselves from events and adjust their way of living after an event has happened; 2. Make a plan for other events; and 3. Change the way that they do things. More specifically:

**Communities that can protect themselves from events and adjust their way of living after an event have:**

- Strong communication channels

- Strong social networks
- Access to functional institutions

**Communities that can plan for other events that might happen have:**

- A plan for shocks and stressors

**Communities that can change the way they do things:**

- Manage ecosystems well
- Manage water systems well
- Adapt agricultural practices to climate change
- Adapt livelihoods strategies

Ramotswa is facing challenges of variable access to water that affect the whole community. Coordinated information was identified as an important way to strengthen resilience in Ramotswa, and public engagement platforms, as well as radio communication platforms, can be tools for key officials to support people to respond to their challenges.

Most households in Ramotswa are preparing to develop their own response to the water challenges they are facing. While it is encouraging to see initiative, this also provides an opportunity for people to come together, and plan together, for more efficient infrastructure development, and stronger, locally rooted planning.

# OVERVIEW OF USAID'S RESILIENT WATERS PROGRAMME

USAID's Resilient Waters Programme aims to build **more resilient and water-secure communities** in the Okavango and Limpopo river basins. We have four goals:

- 1** To improve **transboundary water security and resource management** in the Okavango and Limpopo river basins
- 2** To increase **access to safe, sustainable drinking water and sanitation** services
- 3** To strengthen the **ability of communities and key institutions to adapt to change**, especially the impact of climate change
- 4** To conserve **biodiversity and ecosystems**

In order to do this we will build:



## RESILIENT INSTITUTIONS

- Institutions are central to managing resources and building resilience
- We are supporting institutions in building capacity to plan, building strong networks, enhancing an enabling environment and meeting their objectives.
- Institutional ownership is important for sustainability.



## ROBUST INFORMATION SYSTEMS

- To manage resources better and build resilience, we need information that is accessible and that can be used to make decisions.
- We are working on filling information gaps, synthesising information and integrating it into decision-making.



## INNOVATIVE PRACTICES

- We need to consider new ways to live to adapt to climate change. To this, we need to understand what these practices are and how we can use them.
- We will support the innovation and systems of dynamic adaptation.