our OLIFANTS

RESILIENCE IN THE LIMPOPO RIVER BASIN - OLIFANTS CATCHMENT

WE ASK OF EVERYTHING WE DO; IF CLIMATE CHANGE IS A RISK FACTOR, WHAT ARE THE IMPLICATIONS OF THAT? AND, WHEREVER WE ARE WORKING IN THE OLIFANTS CATCHMENT, HOW WILL BIODIVERSITY BE AFFECTED?

USAID's RESILIM-O program aims to reduce the vulnerability of people and ecosystems through improved transboundary governance and management of natural resources.

The program is grounded in a grassroots approach to understanding the systemic causes of vulnerability, including climate vulnerability, and promoting new ways of thinking and acting to promote integrated water and biodiversity management.

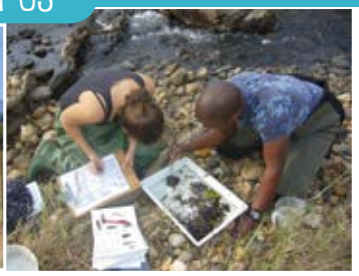
AWARD

USAID FROM THE AMERICAN PEOPLE | SOUTHERN AFRICA

In just 60 years, the world's population has grown from 2.5 billion people to 7 billion people today. By 2050, another 2 billion will join us – mostly in developing countries – increasing the rapidly growing demand for our planet's resources.

Global problems are exacerbated by global climate change. A changing climate will undermine the livelihoods of millions of people struggling to break free from poverty. USAID works to end global poverty and support resilience and democracy.

ABOUT US



The Olifants and its contributing waterways are critical for supporting life. Yet unchecked pollution, inappropriate land and resource use, weak and poorly enforced policies and regulations, and poor protection of habitats and biodiversity are degrading the Olifants at an alarming rate.

ABOUT USAID: RESILIM

USAID's Resilience in the Limpopo River Basin (RESILIM) program is designed to address ongoing degradation in the Limpopo River Basin in southern Africa, where people face water shortages, increased floods, and declines in crop productivity as climate change further stresses an already water limited region. There are 2 components to the program; 1 operating at a basin-scale (USAID: RESILIM-B) and a catchment-scale project (USAID: RESILIM-O). Both projects share the same overall objectives.

USAID: RESILIM-B

USAID: RESILIM-B facilitates transboundary cooperation at a basin level to prevent further degradation of critical river ecosystems, to secure biodiversity and ecosystem services, and to support robust livelihoods in the Limpopo River Basin. The five-year program supports the integrated water resources management objectives of the Limpopo Watercourse Commission (LIMCOM), a sub-structure of the Southern African Development Community (SADC), by building the capacity and resilience of stakeholders from Botswana, Mozambique, South Africa and Zimbabwe.

USAID: RESILIM-O

USAID: RESILIM-O focuses on the Olifants River Basin and the way in which people living in South Africa and Mozambique depend on the Olifants and its contributing waterways. It aims to improve water security and resource management in support of the healthy ecosystems that support livelihoods and resilient economic development in the catchment. The 5-year program, involving the South African and Mozambican portions of the Olifants Catchment, is being implemented by the Association for Water and Rural Development (AWARD: www.award.org.za).

OBJECTIVE 1

To reduce (climate) vulnerability by promoting the adoption of science-based adaptation strategies for trans-boundary Integrated Water Resource Management (IWRM) and biodiversity conservation in the Olifants catchment.

OBJECTIVE 2

To enhance long-term water security and reduce (climate) vulnerability by supporting informed adaptation strategies for transboundary Integrated Water Resource Management (IWRM) in the Olifants catchment.

OBJECTIVE 3

To conserve biodiversity and manage sustainable high-priority ecosystems in the Olifants sub-catchment.

OBJECTIVE 4

To build the capacity of stakeholders to manage sustainable water resources and biodiversity in the Olifants catchment.

OBJECTIVE 5

To facilitate the exchange of experience with other basins and especially catchments within the Limpopo basin.

OBJECTIVE 6

To ensure continuous reflective and collaborative processes that promote integration, synergies, and coherence between the preceding objectives.

OBJECTIVE 7

To develop and maintain internal organizational capacity and effectiveness through tenable management systems and sub-contract management.

SOCIAL LEARNING

Definition: Social learning is a process of socially constructing an issue with actors through which their understanding and practices change, leading to transformation of the situation through collective and concerted action.

SYSTEMS THINKING

Systems Thinking: The understanding of a phenomenon within the context of a larger whole; to understand things systemically literally means to put them into a context, to establish the nature of their relationships.

BOUNDING THE SYSTEM

There is an established set of hydrological boundaries that many of the people we are working with are already familiar. It makes sense for USAID: RESILIM-O to work within these.

To make the information and learning that comes out of USAID: RESILIM-O useful to the implementers in an obvious way, the catchment has been grouped further into working clusters that make pragmatic sense for the work AWARD will be doing in the Olifants catchment. These clusters are not based on any biophysical or political boundaries, but are simply a way of dividing the catchment around potentially similar practices.

In taking a systemic approach, we do not ignore what is outside of those bounds. This helps make explicit things we cannot change, but which may influence or have an impact in the areas where we work.

AWARD'S APPROACH

At AWARD, we recognize that the natural world's resources are limited, and undergoing rapid depletion and transformation.

We know current practices of use and management are inadequate to deal with the changes and challenges we are facing.

Our approach has always been one that involves thinking across disciplines, boundaries and systems. We have a record of designing practical interventions to address the vulnerability of people and ecosystems, and merge considerations from both environmental and social perspectives.

We specialize in participatory, research-based project implementation aimed at addressing issues of sustainability, inequity and poverty, by building natural resource management competence and supporting sustainable water-based livelihoods. Our work helps provide a foundation for robust development policy and practice in southern Africa that can stand up to an increasingly complex world.

Our innovative work with USAID: RESILIM-O involves not only quality science studies towards developing an inter-disciplinary assessment of the Olifants River, but also an engagement with the socio-political context of the catchment. The realm of politics and scarce resources is fraught with complexity and we know that change is mediated by deeply social and political processes.

Our focus on systems thinking and social learning are key innovations of this project, designed to institutionalize integrated, resilience-based practices in the Olifants River catchment.

It calls on people and organizations working in the water and biodiversity sectors; community members, traditional authorities, farmers, the mining sector, research institutions, local and national government and other interested and affected parties in South Africa and Mozambique to be part of a process to develop a more resilient Olifants catchment.

OLIFANTS RIVER CATCHMENT

"Our work on USAID: RESILIM-O aims to improve how the Olifants River basin is managed," says AWARD's Executive Director, Sharon Pollard. The Olifants River and its contributing waterways are critical for supporting life in the area, "yet unchecked pollution, inappropriate land and resource use, weak and poorly enforced policies and regulations and poor protection of habitats and biodiversity are degrading the Olifants at an alarming rate.

WHAT WE DO

The USAID: RESILIM-O project is divided into two phases. The first phase is a comprehensive and systemic resilience assessment of the Olifants River basin. The second phase is responding to this context through cluster-based professional development and learning and a series of sub-grants that will focus on building practices that will enhance the resilience of the catchment.

Phase One involves contextual understanding, research, synthesis and plans for innovation and testing. This phase has a strong focus on a systemic and collaborative enquiry into the resilience of the Olifants catchment as a socio-ecological system.

This is done as a basis for understanding the multiple vulnerabilities to change, including climate change. It involves building strong stakeholder networks as the basis for a collaborative, participatory understanding of vulnerability for the basin as a whole. Despite all the research done in the Olifants catchment, there is little synthesis and there are still crucial information gaps such as the status of mining and land distribution in the catchment.

RESILIENCE ASSESSMENT

The first step towards a resilience assessment is understanding context.

This process entails exploring what a resilient Olifants catchment might mean. This is also the first step in a social learning process where diverse stakeholders together confront the context of the Olifants catchment and ask the question: "What is happening here?"

Exploring context, however, is a complex, collaborative process of making meaning and this involves stakeholders, in addition to engaging in more specialist studies.

WORKING WITH PEOPLE

People of the catchment are important and our work involves understanding the complex network of stakeholders in the Olifants catchment and the practices they engage in. This means understanding the diverse and divergent spectrum of institutions, industries, land-use practices, cultural identities and notions of agency.

This is fundamental if we are to work towards transformation through self-organization, working collectively and being responsive to the changing context of the catchment, especially given challenges such as climate change.

Through our stakeholder database we track ongoing engagement with stakeholders, as well as tracking stakeholder engagement patterns of particular organizations we see as vital for building resilience in the catchment, such as forums.

We also develop contextual profiles with stakeholders, using methods such as workshops. We then develop systems diagrams of each area which are used in the second phase of social learning – deconstruction – where we ask the question: "How has it come to be like this?"

Several specialist studies highlight important drivers in the catchment and synthesize much of the work done in South Africa and Mozambique. The specialist studies are bringing many important issues to light.

Having a rich and systemic understanding of the context of the Olifants catchment forms the basis for our work in terms of the resilience assessment and building resilience practices.





GET INVOLVED

We need to work with people who have expertise, experience and understanding of the biodiversity sector and water resources management in the Limpopo River basin to help us profile the catchment.

We want to better understand institutions, practices, strategies, approaches and the role that these play in sustaining river flows in the Lowveld. Please contact us at info@award.org.za if you're concerned about what's happening in your catchment.

Fundamental to working together towards a common goal are the notions of identity and agency: How do people identify themselves and are they in a position to work together, given contextual realities? Based on the ability to self-organize and act collectively, resilient systems display high levels of responsivity. Self-organization is, in turn, a function of identity and agency – two important aspects that the project is profiling across the entire catchment.

CHANGING PRACTICE

One of the core aspects of the USAID: RESILIM-O project is the coordination and institutionalization of resilience-focused practices within the architecture of natural resource management. Central to this is collective action. This involves learning together to transform the Olifants catchment.

Since the responsibility for resilience in the catchment cannot lie with one institution, it is important that the process is conducted collaboratively, strategically and transparently with a number of stakeholder groups or institutions.

Coordination and dialogue are central to the development of resilience. Building the platform for dialogue and collaboration is a key part of the first phase. We employ various stakeholder engagement activities. All of them are directed towards encouraging learning and transformation within a particular context.

STARTING CONVERSATIONS

AWARD's approach to stakeholder engagement comes from social learning. In its simplest form, it involves starting conversations with people. We get to know stakeholders from their own perspectives in order to understand the context of their lives. Instead of trying to build an extractive picture of the people in the catchment, AWARD profiles stakeholders by creating a picture of their world in terms of their own understandings of it. The result isn't just a profile; it's a process of making meaning.

RESILIENCE LEARNING NETWORK

Central to the work of USAID: RESILIM-O is developing the capacity of individuals and organizations to respond to the challenges of climate change. This is also one of the high-level outcomes of the project. Our approach is to develop this through social learning and by building a resilience learning network. A strong network is more likely to be able to respond appropriately to threats and risks and work cooperatively.

We have found that there are strong networks in the Olifants catchment, but these can be exclusive and driven by specific interests. This can result in escalated resource exploitation and degradation, with a resultant increase in vulnerability – not resilience.

"The initial step in social learning is always understanding context.

Our method involves stakeholders describing their situations from their own perspectives," says Dr Charles Chikunda, USAID: RESILIM-O's stakeholder engagement facilitator and activity systems researcher.

"It's not an extractive tool, but rather a way of building up multi-dimensional, systemic pictures of the catchment in order to inform a thorough resilience assessment. In the process, we are refining the methodology to deal with the complexities, spatial and social, of the catchment."

CONTEXT MATTERS

If a project and its partners are to respond by adapting to change, it is important to have a good understanding of context. However, in complex socio-ecological systems there are likely to be a variety of interpretations of context, influenced by cultural means of production, science being just one.

Recognizing this, the USAID: RESILIM-O program has developed a method that seeks to understand context by paying attention to the social dynamics that influence how people understand themselves in relation to the catchment and vice versa.

The subsequent steps are aimed at understanding how the contextual factors came to be and then collectively acting to change or transform the context into a more sustainable or resilient situation.

The approach we have adopted is to involve stakeholders in the development of a series of contextual profiles that draws on the cultural and institutional meanings of a particular part of the catchment.

The approach uses the mechanism of VSTEEP. It stands for "Values: Social, Technical, Ecological, Economic, and Political" and represents an entry point for getting stakeholders to start talking about their catchment.

The aim of the project is to share the profiles as broadly as possible and consider where there are points of divergence and potential conflict, as it is assumed there are areas where collective action towards resilience will be hampered.

Contextual profiles in a nutshell

We use VSTEEP as a basis for building contextual profiles. It has a history of successful usage in Strategic Adaptive Management and was used for a decade and a half by AWARD, South African National Parks (SANParks) and others, particularly in the Lowveld area. In a nutshell, it encourages a group of people from different constituencies to be able to collaboratively build a holistic, largely shared picture of the context they are dealing with. This can act as a launch-pad for further joint action. It differs from many conventional approaches in that it takes longer but produces far wider and deeper buy in, with scientific and other forms of knowledge being used together in a structured, robust and defensible way.

HOW A CONTEXTUAL PROFILE USING VSTEEP WORKS

VSTEEP is not a process carried out by researchers. Rather, it involves stakeholders living and working in an area. They have the opportunity to think about their context in new ways, hear what other people in the area think and potentially broaden their view of their context.

The VSTEEP process, therefore, must be anchored in a particular situation with which the participants are familiar. The process is guided by a central question that helps the project maintain a particular long-term focus, in our case, resilience of the Olifants catchment.

Our guiding question for VSTEEP has been: "As informed by our various views, how is the state of natural resources changing in the Olifants basin, with special reference to this part of the basin?"

STORIES OF INSIGHT

As part of confronting context in the catchment, we meet with stakeholders, attend meetings and participate in forums and events. Using a narrative approach, we carefully compile documentation from each engagement and then, collaboratively apply our methodology to identify the most significant stories.

Working like this is an opportunity to think outside of the box and link stories.

We're beginning to see interesting patterns emerging that will inform our work in the catchment going forward.

WHY STORIES MATTER

Significant stories help us understand what and how change is happening. We can then ask if the change is leading to more or less resilience in the catchment. So far the significant stories that we have collected highlight some key tensions: issues around institutionalizing programs, challenges around decentralized decision making, a lack of responsivity, a lack of integration and unclear roles, responsibilities and priorities.

The process of identifying significant insights is also an aspect of our monitoring, evaluation and learning framework and provides us with the opportunity to collaboratively reflect on what we have learnt.

To look at significant stories we filter narratives using domains of change. Below are some examples of domains of change.

Managing adaptively

GUIDING QUESTIONS (GQ): Do we have stories that show how we or others are struggling to adapt, reflect and respond or, able to adapt, reflect and respond? What insights have we gained about how adaptive management could be achieved?

Thinking systemically

GQ: Do we have stories that show how we or others are struggling to think systemically or, able to think systemically? What insights have we gained about how thinking systemically could be achieved?

Inclusivity and democratic decision making

GQ: Do we have stories that show how we or others are struggling to be inclusive and democratic or, able to be inclusive and democratic? What insights have we gained about how inclusivity and democratic decision making could be achieved?

Aligning policy with practice

GQ: Do we have stories that show that policies are/are not aligned with practice? What insights have we gained about how alignment could be achieved?

Institutionalizing practice

GQ: Do we have stories that show examples of relevant practices? Have they or have they not been institutionalized? What insights have we gained into how institutionalization could happen?

Innovation towards positive change

GQ: Do we have stories that show innovation or a lack of innovation towards positive change? What insights have we gained into how innovation can lead to positive change?

Self-organization leading to collective action

GQ: Do we have stories that show evidence of, or an interest in self organization towards collective action? What insights have we gained into how self-organization can lead to collective action?

Learning together

GQ: Do we have stories that show learning together is happening or that there is an interest in learning together? What insights have we gained about how we learn?

USING SPECIALIST STUDIES TO UNDERSTAND SPECIFIC ASPECTS OF THE OLIFANTS CATCHMENT

In addition to the contextual profiling process described in the previous sections, the USAID: RESILIM-O program has commissioned a series of studies from a number of specialist institutes and consultancies that have the skills and competencies to analyze and synthesize decades of research linked to the Limpopo basin and the Olifants catchment.

USAID: RESILIM-O is coordinating a group of specialists. They convene twice a year to discuss methods, findings and means of integrating research towards building resilience. Some of these studies (called work packages) are highlighted below.

POLITICAL ECONOMY OF WATER AND BIODIVERSITY

The aim of this study is to understand how institutions have developed and are developing in the different socio-economic and environmental settings in the basin, within the context of increasing scarcity of natural resources (water and biodiversity).

GOVERNANCE AND OVERSIGHT

The aim of this work package is to understand better the consequences of different governance/institutional arrangements (for instance, dealing with misfits, non-alignment), to deliberate with these institutions as to what can promote resilience.

LIVELIHOODS AND VULNERABILITY

This study aims to understand livelihood dependencies on water and biodiversity and the impacts of change and to consider how institutional arrangements may incorporate resilience thinking and planning that address these dependencies. This is vital for incorporating the needs of communities relying on the basin for their livelihoods.

SPATIAL ASSESSMENTS

The spatial assessments study seeks to integrate biodiversity, water resource management, climate change and socio-economic issues into spatial planning, in a systemic way (to reflect well-being and improved livelihoods and resilience). Central to this is the development of a set of spatial indicators (quantitative and qualitative) to monitor the current state of the catchment and the impact of current and changed practices.

There will be a special collaborative focus on environmental layers developed for spatial development planning.

WATER BALANCE FOR THE OLIFANTS CATCHMENT

The aim of this study is to develop systemic understanding of the status of water resources (availability and demand) and the key drivers of change under different scenarios in the catchment. This material will be used to engage with stakeholder platforms to support the incorporation of resilience plans into institutions and strategies.

WATER QUALITY ASSESSMENT FOR THE OLIFANTS CATCHMENT

This study is finalizing a systemic and participatory understanding of water quality issues and practices in the basin. This work will be used as an input to understanding the management of water quality as a contribution to the resilience of the Olifants catchment.

ECOLOGICAL WATER REQUIREMENTS

This study will increase understanding of social-ecological water requirements under different scenarios and drivers. It is also currently reviewing the DRIFT (Downstream Response to Imposed Flow Transformations) methodology.

PROTECTED AREA MANAGEMENT

The aim of this work is to understand how the management of protected areas in the Olifants Catchment affects the vulnerability or resilience of people and ecosystems. Protected areas within the Olifants Catchment are important areas for the security of biodiversity and natural resources and their associated eco-system services.

These areas face a range of threats like climate change and invasive alien plants. They also face changes brought about by land reform.

These changes and threats make managing these areas, while ensuring that local communities benefit from them, highly challenging. As such our work on protected area management has a strong focus on community-based issues around biodiversity management and stakeholder involvement.

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Association for Water and Rural Development (AWARD)
Company Reg. No. 98/03011/08
Non-profit org. Reg. No. 006 – 821

P O Box 1919
Hoedspruit 1380
Limpopo
South Africa
Tel: 015-793 0503
info@award.org.za
www.award.org.za