Annual Report
2017/2018 Financial Year

RESILIENCE IN THE LIMPOPO - OLIFANTS

10/31/2018

USAID | SOUTHERN AFRICA

Acknowledgements

The USAID: RESILIM-O project is funded by the U.S. Agency for International Development under USAID/Southern Africa RESILIENCE IN THE LIMPOPO BASIN PROGRAM (RESILIM). The project is implemented by the Association for Water and Rural Development (AWARD), in collaboration with partners. Cooperative Agreement nr AID-674-A-13-00008.

All photographs used in this report have been taken by AWARD project participants unless otherwise specified.

Association for Water and Rural Development (AWARD)

P O Box 1919
Hoedspruit 1380
Limpopo, South Africa
T 015-793 0503
W award.org.za

Company Reg. No. 98/03011/08
Non-profit org. Reg. No. 006 – 821

Contents

List of Figures

List of Tables

Acronyms and Abbreviations

Agri-SI	Agricultural Support Initiative
AWARD	Association for Water and Rural Development
CBA	Critical Biodiversity Areas
CbE	Conservation-based entrepreneurship
CMA	Catchment Management Agency
CMF	Catchment Management Forum
CoDyM	Collaborative Dynamic Modelling
CPA	Communal Property Association
CSO	Civil Society Organisation
CSO-SI	Civil Society Organisation-Support Initiative
DAFF	Department of Agriculture, Forestry and Fisheries
DEA	Department of Environmental Affairs
DICLAD	Dialogues for climate change literacy and adaptation
DRDLR	Department of Rural Development and Land Reform
DWS	Department of Water and Sanitation
GIS	Geographical Information Systems
IDP	Integrated Development Plan
INWaRDS	Integrated Water Resources Decision Support
IWQMP	Integrated Water Quality Management Plan
IWRM	Integrated Water Resources Management
KNP	Kruger National Park
KRA	Key Result Area
LEDET	Local Economic Development, Environment and Tourism (Limpopo Province)
LMC	Legalameetse Management Committee
MERL	Monitoring, Evaluation, Reporting and Learning
MSI	Municipal Support Initiative
MoU	Memorandum of Understanding
MTPA	Mpumalanga Tourism and Parks Authority
NGO	Non Governmental Organisation
NRM	Natural Resources Management
NRMPs	Natural Resource Management Programs
NWA	National Water Act
OCMA	Olifants Catchment Management Agency
PA	Protected Areas
RESILIM-O	Resiliency of the Limpopo River Basin
RSIs	Resilience Support Initiatives
SANParks	South African National Parks
USG	United States Government

Director's Note

Executive Summary

This annual report covers the sixth year of the RESILIM-O Programme from October 2017 to September 2018. This marks a period of significant progress in the implementation of some 25 projects related to water and natural resources management and climate change adaptation in the Olifants River Basin. It embraces a period of deepening work with and institutionalisation of our systemic, social learning approach which we see as important ways to build adaptive capacity and resilience in the face of change and uncertainty. Staff have worked incredibly hard to institutionalise these approaches within different sectors and networks. The work has been strengthened through collaboration with many partners enabled through our sub-grants to the K2C, the Institute of Natural Resources, Environmental Monitoring Group, Ukuvuna Harvests, Mahlathini Development Foundation, Rhodes University, the Water Group, Water Resources Planning, Aves Africa and more recently, Creating Sustainable Value and CDS in Mozambique.

The year has been marked by substantial highlights and challenges. Within this context, there have been significant innovations by the teams and it is these I would like to focus on. First, it is noteworthy that this report takes place in the wider **national context of concern over water security** and climate change and its impacts. The recent water crisis in Cape Town brought home the potential systemic impacts even within the international discourse. It usefully highlighted the political economy of water, potential leverage points and adaptation needs and the importance of planning in a climate-changing world. As this drama unfolded, a similar set of challenges were unfolding in other parts of the country, including the Olifants Catchment. The protracted drought in this area showed no signs of abatement and flows in the lower Olifants decreased to – and remain at - critically low levels, flouting our own national policies. While climatic drivers provided a window into potential future vulnerabilities, the deep structural drivers that continue to contribute to the greater water insecurity were a focus for AWARD.

In January, using our INWARDs model, AWARD together with the Kruger National Park secured releases from De Hoop dam which prevented the river from drying up. This had to be repeated again in September when flows fell some 50% below the recommended minimum. This situation has ramifications for the farming sector and job security as well as for domestic water supply for the greater Phalaborwa area, Kruger National Park and Mozambique. Had AWARD not intervened, the river would have stopped flowing. Nonetheless, such responses are temporary 'Band-Aids' and the underlying causes require examination. AWARD has thus focused its efforts on supporting the Department of Water and Sanitation (DWS) regarding unlawful use, together with compliance monitoring and enforcement (both national concerns) and the need to consider broader management measures and strategies. On the water demand side, our research revealed extremely high water consumption figures in both Hoedspruit and Phalaborwa and we have worked both with municipalities and water users to conscientise and plan for water conservation and demand management measures. Building networks amongst stakeholders for integrated water resources management is also a key strategic focus for AWARD.

Poor water quality and threats to water availability are hallmarks of the Olifants River. In recognition of this we have worked with the Ba-Phalaborwa municipality to implement strategies and actions to mitigate discharge effluent from their waste-water treatment works through measures that are both technical but also social in nature. Also, to the delight of DWS, we have incorporated water quality limits from the national integrated water quality plans into the INWARDs decision-support system. Although still in its early stages, we are also supporting communities near Burgersfort to analyse and understand effluent water quality from two mine shafts. Not only are cattle dying from high heavy metal toxins but potentially the effects are more pernicious for humans in that water is being used to irrigate crops. This has been the focus of a number of proposals for further funding.

A **second contextual factor is that of climate change**. Climate change science has greatly improved over the last five years and attribution is now clearer. In terms of understanding the potential impacts in the Olifants, a final report received from the Climate Systems Analysis Group (CSAG) delineating and describing climate regions in the Olifants Catchment has proved to be an invaluable resource for helping stakeholders to understand and respond to climate impacts at a local level. We have continued with our innovative DICLAD approach (Dialogues for Climate Change Literacy and Action) where we demystify data and consider it within a context that has meaning to people such as farming, water, land-use planning, disaster management, invasive alien plant management and reserve management. We are fortunate to have such work under the rubric of RESILIM-O making it easy to embed climate change considerations at appropriate times.

All RESILIM-O work has been set against a backdrop of **institutional uncertainty** and two important contextual issues came to the fore early in 2019. These are deeply concerning because they both have the potential to undo some of the gains made so far through the RESILIM-O program and, as such, require a strategic response. Firstly, the state of the Department of Water and Sanitation – the authority responsible for ensuring the sustainability of water resources in South Africa – is deeply concerning, particularly with regard to the dissolution of Catchment Management Agencies (CMAs) and revelations regarding their financial situation. AWARD, together with several other NGOs, contributed to a report drafted by the South African Water Caucus outlining all areas of concern. There was significant media exposure of the report including interviews on national television. While problems within DWS have been ongoing since the beginning of RESILIM-O, the reversal of previous commitments around CMAs (as required by the National Water Act) has taken us backwards in some respects. We have invested five years in strengthening the Olifants CMA's ability to plan for and act on issues of water resources protection. In response to this situation, AWARD has had to shift the focus of the water governance work towards not only capacitating DWS regional staff but also civil society to promote collective action (while still working with DWS where possible).

Given this uncertainty, significant effort has been put into **building resilience into governance systems in all thematic areas**. At the start of our work on the incorporation of biodiversity, water and climate change concerns into land-use planning, none of these factors had been considered. Not only has this changed but the impacts have permeated through all planning documents and we are now part of the Intergovernmental Steering Committee for the Mopani SDF. Additionally AWARD's role in facilitating integrated approaches to restoration have meant we are now regularly invited to other national platforms such as MAREP. Our work on water governance has been acknowledged through requests to upscale to the Inkomati Catchment and through participation in the WRC-led Advisory Committee on the 'one-CMA' and the review of the NWA. Strengthening co-management practices and governance in the Legalameetse Reserve has seen major positive changes internally amongst CPAs representing the six land claimant communities. However, wider governance issues between the claimants and various government departments still has some way to go and will be a focus for 2019.

Ongoing building of networks for collaboration and action for improved governance within the catchment is an important innovation for all of our thematic areas of work. In most cases these networks were non-existent and, in a world of weakening governance and increasing complexity, they are regarded as key for long-term sustainability. They address a constitutional principle underpinning our democracy where people have a right to know and participate in governance. We have been supporting networks for water resources monitoring and management both in the middle and lower Olifants, for restoration of degraded but priority areas in the upper Blyde and in the estuarine mangroves in Mozambique, for support to civil society suffering various challenges and risks, for co-management of the priority Legalameetse Reserve, for land-use planning that is cognisant of natural resources, for small-scale agroecology, for the incorporation of climate-imposed risks in disaster management and for universities through the Limpopo Basin Curriculum Innovation Network. The youth of the Moletele and Legalameetse CPAs in particular have been a focus for a number of these initiatives. All these networks have been supported through a

systemic, social learning approach where stakeholders learn about climate change and their catchment and are able to plan actions in an ongoing, learning way.

Wider network-building activities have also seen the bringing together of stakeholders to discuss challenges with the implementation of Environmental Water Requirements (or the Reserve), a special session run by AWARD at the Adaptation Futures Conference in Cape Town in June, and six shared learning events, including one which brought together for the first time community members from Legalameetse, the Moletele Youth Project and small-scale farmers from Mametja to learn about the variety of benefits and ecosystem services from natural resources on their land. A group from Legalameetse also visited the Makuleke whose successful land claim in Kruger and co-management experiences thereafter provided invaluable lessons. The recently launched work on mangrove restoration in the Limpopo estuary aims to build networks amongst residents, government, teachers and learners.

Strengthening capacity, identity and agency around natural resource use and management is central to RESILIM-O. Some notable developments are worthy of mention.

- Increased capacity for integrated water resources management has been a focus through the training of DWS staff over two week-long modules. Here staff learnt how to integrate information from multiple sources – both socio-economic and biophysical – in order to assess new water use licence applications and compliance with current water use licence. Both are extremely key issues not only in the Olifants but in many parts of the country where water security is increasingly in the spotlight. In the second module, a number of civil society activists (from our CSO work) joined the training to present their 'case-studies' for consideration. For both parties this proved invaluable in revealing the 'faces' behind the issues and providing the basis for further discussion.
- The in-depth transformative learning experience provided to community-based activists through the Changing Practice course has strengthened their ability to challenge environmental injustices in their areas.
- An exciting development was the induction of 13 new Environmental Monitors (EMs) from the Legalameetse youth as part of a collaboration between AWARD and K2C, under the K2C Environmental Monitors Program. These young people will help to improve awareness and understanding of co-management, Natural Resources Management (NRM) and the activities of the Legalameetse Management Committee within the wider communities at Legalameetse.
- The Legalameetse Management Committee, together with LEDET staff facilitating co-management have made significant strides forward in building a sustainable foundation for tenable co-management. Their experiences and learning offer important lessons for other co-management initiatives. The Madeira CPA committee which was largely dysfunctional in 2016 with little interest in co-management, has started to play a leadership role with the inclusion of a portion of their land into Legalameetse Nature Reserve. The youth at Legalameetse are showing increasing interest in conservation-based careers and enterprises, from a base of very low interest in and experience of the nature reserve "on their doorstep". Ironically, the increasing agency of the Legalameetse CPAs has led to further delays in the signing of the co-management agreement, because the CPAs want a greater say in matters related to reserve management.
- The formation of water committees by communities in two of the villages under the Agriculture Support Initiative is another promising sign of collective agency.
- Natural Resource Management stakeholders in the Blyde catchment have taken on more and more tasks and issues to work on together – from an initial agreement in 2015 to work on aligning their clearing plans, they have now collaboratively worked on a number of plans, proposals and products.

Capacity can also be enhanced through **the use of "tools"**. It is important to note that we adopt an approach where we see "tool development" as a learning process - rather than developing the tool and then "implementing" or handing it over to users.

- Within land-use planning, we have developed the ***CBA map and biodiversity handbook*** for the district, together with land-use guidelines. Additionally, the Mopani Bioregional Plan, developed with input from AWARD, was gazetted.
- The KRA 2 team developed a web-based, mobile-friendly platform on which citizens can upload ***rainfall data***. This will help to fill some of the gaps in the rainfall data for the catchment due to the decreasing number of South African Weather Service rain gauges. The KRA 2 team also continued to maintain the *near real-time flow and water quality monitoring system* and the ***Early Warning System***.
- The KRA 3 team continued to work on the ***invasive alien plant inventory map*** for the Blyde Catchment. This, together with the timber resource assessment being funded under K2C-GEF, will inform restoration strategy, plans and methods as well as beneficiation opportunities. The Blyde Restoration Group collaboratively developed a ***restoration plan*** for the Lowveld Plantations as well as a ***streamflow monitoring plan***.

AWARD has played an important role in gathering and mediating information regarding unlawful water use and the Mametja-Sekororo bulk water supply projects of the Lower Olifants so as to help stakeholders to hold municipalities and departments to account. This role is particularly important in the extremely challenging governance context under which we operate.

Much time was also spent on setting up new and follow-on sub-grants – also considered important for developing networks and capacity in the catchment. The finalisation of our partnership with CDS in Mozambique through a grant in August this year allows us to take a basin-wide approach to our endeavours and builds on important formative work started under our sister program RESILIM-B.

Finally, it is important to acknowledge the importance of NGOs and partnerships, particularly in today's climate. This year has highlighted how few NGOs and CBOs there are but the important role they play in acting not only as watchdogs but also as facilitators for sustainability and equity agendas.

I would like to take this opportunity to wish all a fruitful 2019.

Dr Sharon Pollard

Executive Director, AWARD

1 Overview

This annual report covers the period October 2017 to September 2018[1] and is the sixth report submitted to USAID. This period is the third year of Phase 2, in which we take the outputs of Phase 1 into action through testing, reflexive learning and institutionalisation. This period is also the first year of the no-cost extension granted in August 2017.

The report starts with a description of current conditions and threats in the Olifants River Catchment and an overview of the RESILIM-O program. It reports progress for the year against indicators and then as a narrative against each Key Results Area (KRA). Section 3 provides a financial report.

1.1 Introduction

The RESILIM-Olifants program focuses specifically on the transboundary Olifants River Catchment which forms part of the even-wider Limpopo River Basin. The Olifants River Catchment, or ORC, is of particular concern because of the wide-scale threats to biodiversity and the ecosystem services that support people's livelihoods. Much of our work in Phase I focused on a basin-wide assessment which is summarised below as background to the project-specific work detailed in Section 2.

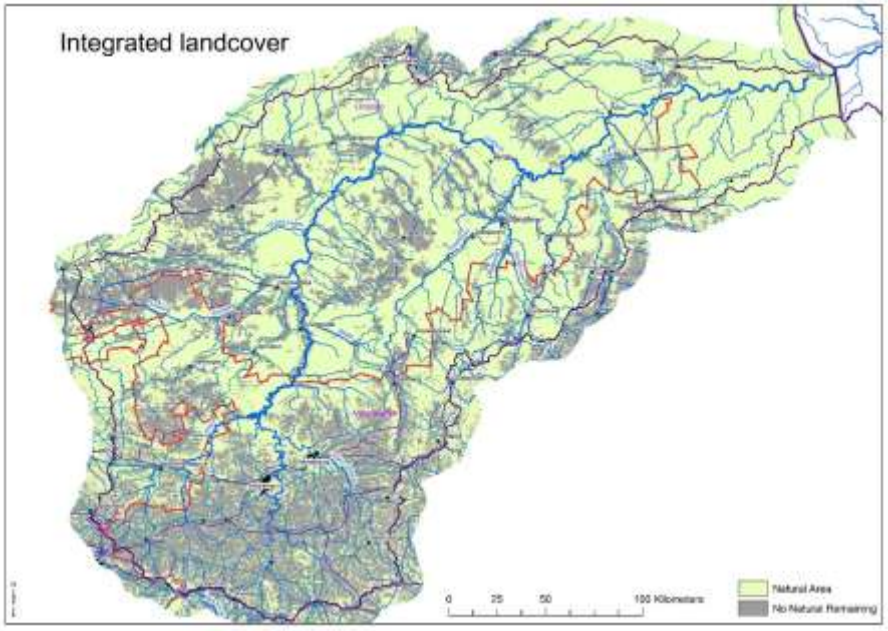

Figure 1: Map of the South African portion of the Olifants River Catchment indicating land transformation and areas with little to no natural cover remaining

From both an aquatic and terrestrial perspective, the Olifants River Catchment (ORC) is a rich and diverse landscape. It is home to areas of endemism and high biodiversity, particularly along the Drakensberg Escarpment which includes the Blyde and Legalameetse Nature Reserves and some tributaries of the Olifants. The Olifants River flows into the Limpopo River and the Maputoland-Tongoland Ecoregion, an area of rich biodiversity and endemism which includes the Limpopo River estuary. Currently, the Olifants River is the only tributary that sustains flows of the Limpopo River in the dry season. Through RESILIM-O, AWARD has identified a wide range of habitat types in the grassland and savanna biomes, although climate

[1] Please note that the AWARD work plan runs from January 2018 to December 2018 while the USAID period is from October 2017 to September 2018.

change is likely to see a major transformation of the already threatened grasslands to savannas. There are substantial areas of natural landcover especially in the Lowveld, along the escarpment and Blyde River Catchments. Nonetheless many of these are threatened by a range of drivers including mining, urbanization, afforestation and invasive alien plants. Declining water quality and decreased flows threaten aquatic systems along the entire Olifants River within South Africa and to the Xai estuary in Mozambique.

Large areas of the catchment have been substantially modified and the upper catchment is almost totally transformed through agriculture and mining with the latter increasing significantly in the last decade even across former agricultural areas (Figure 1). A number of ecosystems are considered either critically endangered or endangered and many more are vulnerable. In Mozambique, the estuarine area is classified as a *National Maritime Ecosystem Priority* area. Equally, the mainstem of the Olifants River is regarded as critically endangered from its source to the protected areas in the Lowveld (Figure 2). Similarly, almost all westerly-flowing rivers in the high and middle-veld are critically endangered. Intact river systems are limited to the Blyde and some tributaries of the Steelpoort and the lower Olifants. With over 600 former or existing mines (coal and platinum in particular), impacts are felt in both the terrestrial and aquatic systems and on human livelihoods. The discharge effluent from many of the 100 plus waste-water treatment works (public and private), many of which are struggling to meet national standards, impacts on the aquatic systems downstream and again on people's livelihoods. Indeed AWARD's work suggests that the most vulnerable livelihoods in terms of the direct dependencies on ecosystem services are in the former homelands which cover about half of the ORC.

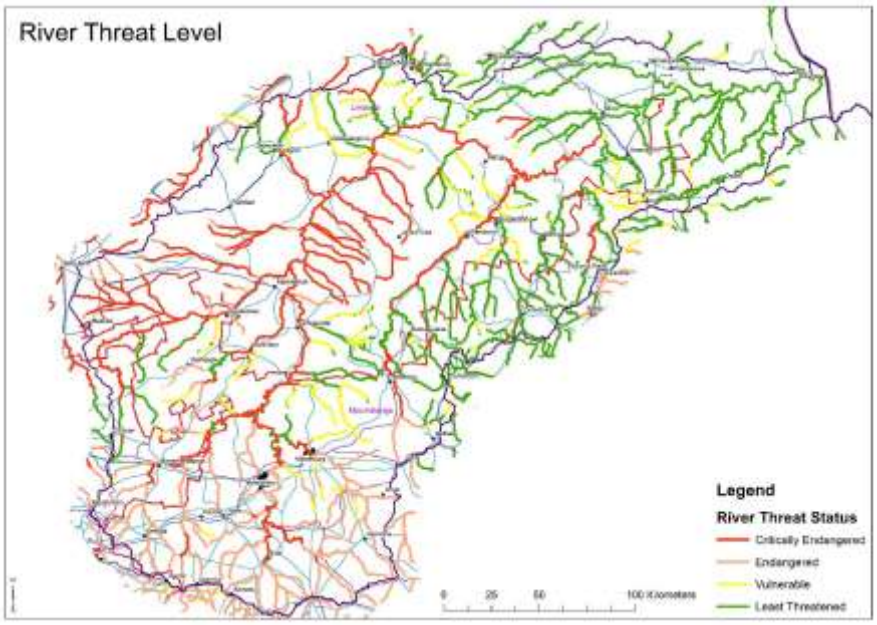

Figure 2: Map of the threat level to rivers of the Olifants River Catchment within South Africa

AWARD has identified a number of integrated biodiversity areas which track the mainstem Olifants River (after Loskop Dam) and include the Steelpoort and Blyde Catchment and the swathe of land across the escarpment into the Lowveld (Figure 3). Key elements contributing to the selection of these areas include exceptionally high values of diversity at multiple levels of biodiversity, high levels of endemism, the presence of threatened ecosystems, larger contiguous areas of intact habitats, and under-protected habitat types.

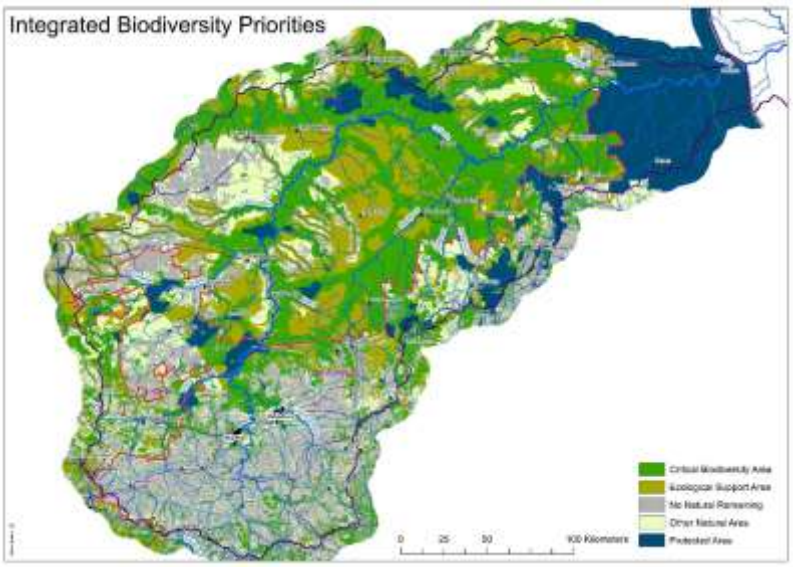

Figure 3: Map of the Integrated Biodiversity Priorities

Within the domain of water resources, the Olifants River ceased flowing for a number of days in 2005, prompting widespread concern and calls for an integrated focus on all the easterly-flowing rivers of the Lowveld of South Africa. As noted, the Olifants Catchment is a particular concern given that it is the largest contributor of flows to the transboundary Limpopo River. Despite the enabling legislative framework for water reform in South Africa introduced in 1998, most rivers in this catchment continue to degrade in both quality and quantity. Given that these rivers form part of international systems, the implications are of wider significance than for South Africa alone. Indeed flows into Mozambique support the livelihoods of between 6,000 and 10,000 small-scale farmers and the critical conservation priority mangroves (Figure 4). All these are vulnerable to changes in flow and water quality, highlighting the importance of the systemic approach adopted by AWARD.

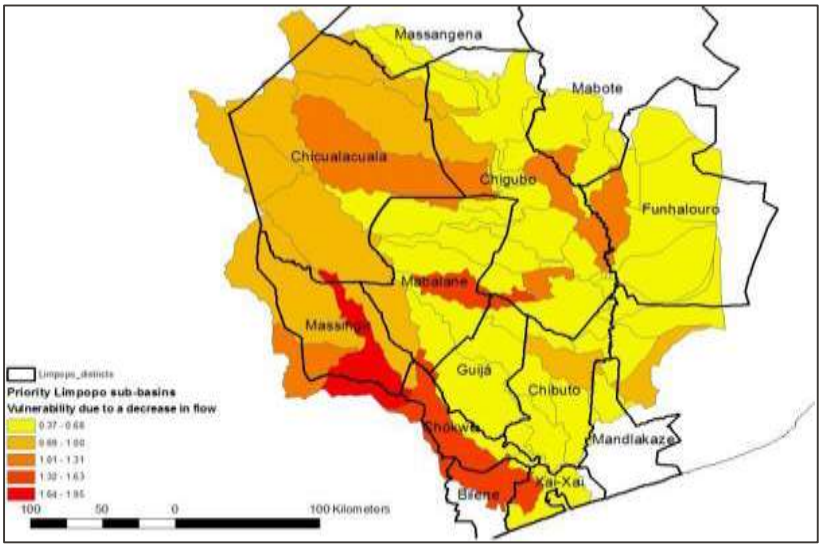

Figure 4: Map illustrating areas with the highest social vulnerability to reductions in flow in the lower reaches of the Limpopo Basin (source: Verde-Azul)

1.2 The RESILIM-O Program

The RESILIM-Olifants or RESILIM-O program, funded through USAID, focuses on the Olifants River Basin, the health of its ecosystems and the dependence of residents on these, and how people may adapt to climate change and other change factors through increased resilience.

Although RESILIM-O focuses on the Olifants Catchment, it is located within the broader context of the Limpopo Basin. Here another RESILIM program has addressed similar issues at the scale of the four SADC member states that share the Limpopo Basin (South Africa, Botswana, Zimbabwe and Mozambique). It is worth noting here that the Olifants River contributes nearly 40% of the water that flows in the Limpopo River making it an important catchment in the system as a whole.

The overarching goal of RESILIM-O remains as outlined in the original project documentation: "To reduce vulnerability to climate change through building improved transboundary water and biodiversity governance and management of the Olifants Basin through the adoption of science-based strategies that enhance the resilience of its people and ecosystems through systemic and social learning approaches".

Phase 2 entails implementation of resilience-building endeavours in response to the collaborative exploration of context in Phase 1. Seven Key Result Areas (KRAs) and their higher-order strategic objectives were adopted (see Figure 5 and Figure 6). These KRAs address the key strategic areas for action (KRA 1-5) as well as internal governance, monitoring, reporting and learning (KRA 6 and 7). While some of the activities have been clustered according to specific objectives, some are cross-cutting and co-dependent so that all contribute in varying degrees to the objectives and to the RESILIM-O goal.

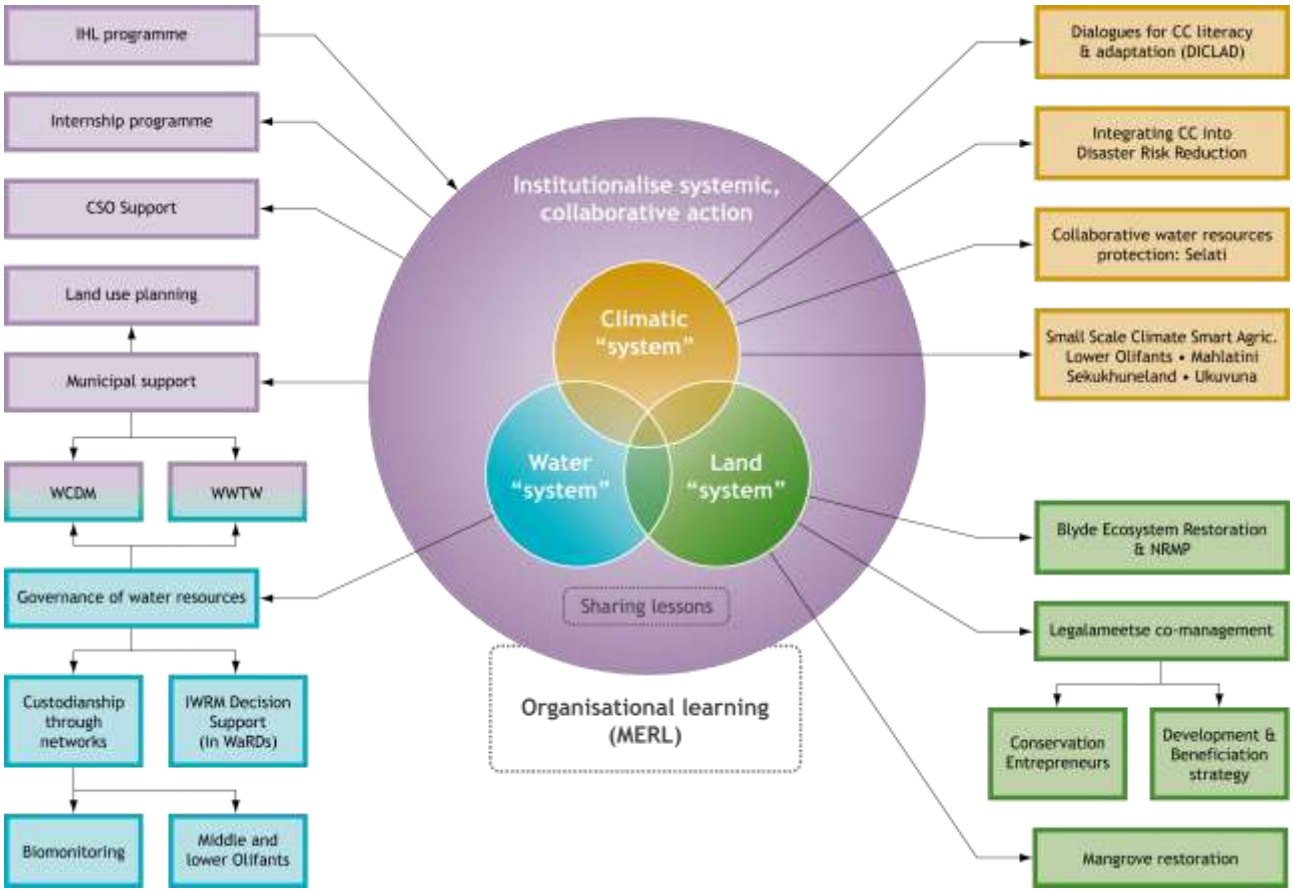

Figure 5: Schematic of RESILIM-O framework and activities in Phase 2

The catchment is viewed as a complex coupled social-ecological system. In such systems, social learning is not simply a precursor to action; learning needs to be ongoing. Thus a re-formulation of issues and solutions can also take place to facilitate more strategic action. The relevant issues relate to climate change, biodiversity and water (natural resources), and relevant actions would be those that make the people of the catchment and the ecosystems more resilient to climate change. Systemic social learning enables stakeholders in government and civil society to plan collaboratively for action, to take action, and to learn from reflection on their actions (reflective learning and strategic adaptive management). RESILIM-O has continued to embrace the systemic, social learning approach into Phase 2. Based on Phase 1 experiences, we have developed an innovative and responsive approach to collaborative planning for action that effectively combines evidence-based information with issues identified by stakeholders.

Fundamental to building resilience is the development of capacity within the region and its institutions to carry the process of adaptive management and social learning forward. Phase 2 therefore focuses on capacity development, innovation, testing, embedding and institutionalizing resilience-based practices in various institutions. Although the project cannot hope to reverse all the processes that have been in place for a number of decades, it can make a considerable contribution by providing new ways of addressing management challenges, new strategic direction for responding to climate change, and by supporting development options that are built on sustainable resource management.

Currently the RESILIM-O programme comprises some 19 projects which address our core focus areas of climate, water and land “systems”. A summary is given in Figure 5.

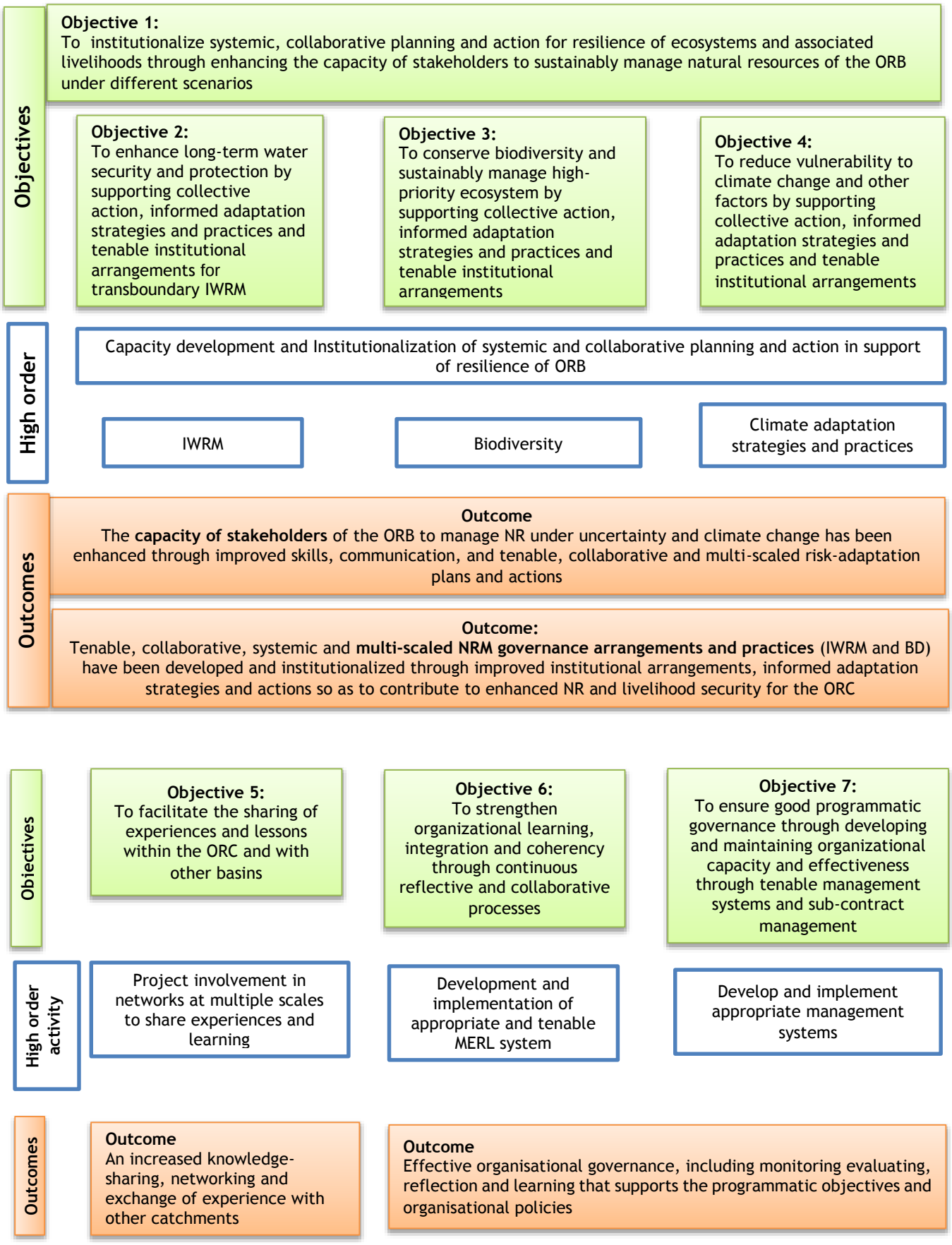

Figure 6: Schematic of RESILIM-O Phase 2 objectives, higher order activities and related outcomes. ORC = Olifants River Catchment, IWRM = Integrated Water Resources Management, BD = biodiversity, MERL = Monitoring, Evaluation, Reporting and Learning

1.3 Results in numbers

The Monitoring, Evaluation, Reporting and Learning (MERL) component of RESILIM-O aims to promote learning and accountability using a hybrid framework that includes monitoring and evaluation against intended outputs and outcomes (as quantitative indicators), but which also leaves space for more qualitative monitoring and evaluation through process documentation, case studies and qualitative indicators. This hybrid approach recognises that development work takes place in complex, open social-ecological systems, where inherent uncertainties make it difficult to track progress simply according to pre-determined targets. Progress in RESILIM-O is therefore assessed through both the quantitative data presented in this section and the narrative descriptions in Section 2.

Progress against high-level programmatic indicators against annual targets is shown in Figures xx to xx. We are pleased to report increases in both our "earmark" indicators compared to last year – over 22,00 ha of biologically significant areas under improved condition and over 1,000 people with increased capacity to adapt to the impacts of climate change. Institutionalisation of capacity, tools and policies is proceeding well, as evidenced by the number of institutions with increased capacity and the number of laws and policies influenced or produced through RESILIM-O.

Program Area: NRM and Biodiversity

This year RESILIM-O activities contributed to improved biophysical conditions in 22,033 ha of biologically significant areas. This consisted of 8,289 ha of high-biodiversity land cleared of invasive alien vegetation in the Blyde sub-catchment (see Section 2.3) and 13,600 ha of river and riparian zone along the Blyde, Steelpoort and Olifants Rivers which benefitted from two flow releases from the Blyde and De Hoop dams during the year (see Section 2.2). Alien vegetation clearing was mainly in grassland areas and the species cleared included pines, gums and wattles, which are all high-priority invasive species of grasslands in South Africa (CSIR national prioritisation, Le Maitre *et al*. 2012). It is important to note that clearing is not a once-off exercise and follow-up maintenance of cleared patches is required (hence the need for long-term sustainability of clearing efforts).

A total of 620,235 ha of biologically significant areas experienced improved management this year. This was made up of 478,342 ha of biologically significant areas within Maruleng and Ba-Phalaborwa municipalities with improved protection due to the Biodiversity Sector Plans and Critical Biodiversity Area

Figure 7: Summary of annual results for the Biodiversity and Natural Resources Management program area

(CBA) maps developed through RESILIM-O. Management was improved in a further 91,800 ha of highly significant biodiversity area in the Blyde catchment this year due to further improvements in coordination and planning of alien vegetation clearing operations, addition of extra clearing teams, clearing of previously inaccessible areas and improved governance arrangements (see KRA 3). The Legalameetse Nature Reserve, an area of 18,718 ha, is considered under better management because of significant strengthening of governance arrangements and eco-literacy among the new land owners as well as the addition of 13 environmental monitors (see KRA 3). River and riparian areas under improved management included the 13,600 ha of river in the Lower Olifants reported above.

This year 1,189 people received training in sustainable natural resource management (NRM) and/or biodiversity conservation, 57% of whom were women. This is did not quite meet the target of 1,522 people (a variance of 22%). The main reasons for the shortfall were the late start of the two Agri-SI sub-grants and a reduction in the number of bush camps held under the co-management project.

Project activities increased the capacity of 170 institutions to address NRM and biodiversity conservation issues. Almost half of these were civil society organisations (CSOs) engaged mainly through the CSO Support Initiative (Section 2.1). Other organisations included municipalities (primarily Maruleng and Ba-Phalaborwa Local Municipalities and Mopani District Municipality), wastewater treatment works, government departments at national and regional levels (DWS, DEA and DAFF), state-led natural resource management programs (NRMPs), conservation agencies (LEDET, Mpumalanga Tourism and Parks Authority [MTPA], SANParks), private nature reserves, forestry companies and Communal Property Associations or CPAs. Institutions were only counted under this indicator if significant additional capacity-building occurred this year through training, mentoring or development of enabling tools and processes (as described in Section 2).

The number of laws, policies or regulations addressing biodiversity conservation or other environmental themes officially proposed, adopted or implemented as a result of USG assistance exceeded that reported last year (51) and also exceeded our target of 47. A total of 69 laws, policies or regulations were recorded, made up of 45 separate items including 11 MoUs and 37 policies, strategies or regulations. While most of these have so far only been proposed in an official forum, 14 have been adopted and 4 implemented. Implemented items include the Emergency Operating Rules for the De Hoop dam releases, the Blyde remote areas clearing plan, the inter-CPA MoU for co-management of Legalameetse Nature Reserve and the Blyde Restoration Group Terms of Reference (which has facilitated many productive partnerships and collective action). Further details of policies and regulations counted under this indicator are provided in Section 2.

Program Area: Climate Change

This year 1,042 people (58% women) increased their capacity to adapt to the impacts of climate change through the RESILIM-O program, almost 300 more people than last year. This capacity development includes training, mentoring and ongoing support through our collaborative social learning approach.

A total of 1,585 people received training in climate change adaptation, 63% of whom were women. The numbers fell short of the target of 2,110 people (a variance of 26%), mainly because a big shared learning event had to be moved to October, delays in the start of certain sub-grants and knock-on effects of delays in other projects on the climate change dialogues project.

The capacity of 207 institutions to assess or address climate change risks was improved, meeting the target. Much of this capacity development was achieved through our networks, including the Civil Society Organisation Support Initiative (CSO-SI), the disaster management learning networks, the agroecological partner network and the water governance networks. In-depth capacity-building also took place with municipal stakeholders through the Municipal Support Initiative (MSI), with small-scale farmers through the Agricultural Support Initiative (Agri-SI) and with the Legalameetse CPAs. Further details are provided in Section 2.

The number of laws, policies, regulations or standards proposed, adopted or implemented exceeded the target and the results were again higher than last year. This year 58 laws, policies, regulations or standards addressing climate change adaptation were proposed, adopted and/or implemented. Of the 37 separate items, 9 were MoUs and the rest were policies, regulations or standards. Two were implemented during this period (Emergency Operating Rules for the Lower Olifants to mitigate the impacts of climate change, and a MoU with Hoedspruit Hub for livelihood diversification of smallholder farmers), while 12 were adopted and the remainder proposed.

Figure 8: Summary of annual results for the Biodiversity and Natural Resources Management program area

Cross-cutting Indicators

The number of people reached through the Our Olifants media campaign was calculated from social media reach statistics as well as readership, listenership or viewership figures published by the various print media, radio and television stations which have featured stories on RESILIM-O. The target for media exposure this year was set conservatively, at around 1 million people, given that AWARD had no dedicated media and communications team. Nevertheless, we managed to reach over million people.

Two peer-reviewed papers were published during this reporting period, as detailed below:

- Lotz-Sisitka, H., Mukute, M., Chikunda, C., Baloi, A. & Pesanayi (2017). Transgressing the norm: transformative agency in community-based learning for sustainability in southern African contexts. *International Review of Education* (published online Nov 2017).
- Clifford-Holmes, J., Carnohan, S., Palmer, C., Pollard, S. & Slinger, J. (2018). Modelling as bricolage. Proceedings of 36th International Conference of the System Dynamics Society (published online Sep 2018).

The following two papers have been submitted to journals:

- Chikunda, C. & Thifhulufhelwi, R. Double stimulation in complex socio-ecological contexts: supporting co-management of a high biodiversity area. *Studies in Continuing Education* (special issue in review, due for publication in Dec 2018).

- Rosenberg, E., Kotschy, K., Burt, J., Mudau, V & Pollard, S. Complexity-sensitive monitoring and evaluation in a coupled social-ecological system in Southern Africa: A hybrid methodology developed in AWARD's RESILIM-O Program. Submitted to *Sustainability Science*.

Figure 9: Summary of annual results for the Biodiversity and Natural Resources Management program area

2 Results per Key Result Area

2.1 KRA 1: Enhancing resilience through systems approaches and capacity development

Key Area 1 objective: To institutionalise systemic, collaborative planning and action for resilience of ecosystems and associated livelihoods through enhancing the capacity of stakeholders to sustainably manage natural resources of the Olifants River Basin under different scenarios.

AWARD's Resilience Support Initiatives (RSIs) were designed to give meaning to our systemic, social learning approach to capacity development. This year we continued to support municipalities, civil society groups and farmers (see KRA 4) through these initiatives, which involve training as well as building and strengthening networks to provide technical and moral support to those wishing to bring about change, and walking alongside them in an ongoing learning process.

The **Municipal Support Initiative** (MSI) focuses on improving preparedness and responsivity of two local municipalities (Maruleng and Ba-Phalaborwa) and one district municipality (Mopani) to deal with natural resource protection, degradation and climate change vulnerability. As a professional learning process it supports practitioners through workplace support, tool development and application. An important innovation is the use of our "wagon wheel" framework which connects the technical and political spheres of local government through continuous feedback and engagement and encourages a systems view of practices rather than a linear, hierarchical view. The MSI model has proven robust for institutionalisation of social learning and improved practices even in the very fluid and contested municipal space. The main areas of support this year were:

a) Support for accountability around water infrastructure projects, in support of good water governance under climate change
b) Support for land-use planning which integrates biodiversity and climate change
c) Integration of climate change into disaster risk reduction (see KRA 4)
d) Support for improved functioning of wastewater treatment works (which affect biodiversity and human health)
e) Support for municipal water conservation and demand management, as an adaptation to increasing water scarcity under climate change.

In support of the above, AWARD has been involved in the Maruleng Integrated Development Plan (IDP) processes (in which RESILIM-O projects are included), Maruleng Municipality's strategic planning sessions, and various meetings related to the Mametja-Sekororo and Hoedspruit bulk water supply projects. Highlights included signing letters of intent in May with the DWS Water and Sanitation Forums for Maruleng and Ba-Phalaborwa Local Municipalities, which will strengthen our relationship with these forums and help to formalise public participation in water issues. We worked with the Executive Committee of the Water and Sanitation Forum for Mopani District Municipality to include recommendations from technical work carried out under the two water-related sub-grants (see below) into their Water and Sanitation Assessment Report. This was adopted by Council as a legal document in March. As a result of our participation in these forums, AWARD's status as a partner was formalised by the DWS Intergovernmental Relations Coordinator.

In terms of **land-use planning**, a number of highlights are noted:

- The Mayor of Ba-Phalaborwa LM formally supported the implementation of the Biodiversity Handbook, Critical Biodiversity Area (CBA) maps and land-use guidelines developed under RESILIM-O. A resolution was also tabled to adopt these in Maruleng Local Municipality. These tools are

extremely important for the integration of biodiversity and climate change into land-use planning practices.

- AWARD was invited to join the Intergovernmental Steering Committee for the development of the Mopani Spatial Development Framework (SDF) in July. This committee includes representatives from the various Local Municipalities in the District, the Office of the Premier, COGHSTA and sector departments, and is rarely opened to other stakeholders at this stage. We actively participated in the SDF review process and provided data on biodiversity, water resources and climate change for the status quo assessment.

Figure 10: Members of the MSI team with the Ba-Phalaborwa Mayor and the Biodiversity Handbook developed for the municipality through RESILIM-O

- The Moletele Communal Property Association (CPA) approached AWARD for advice on land-use planning aspects of a proposed new settlement on their land.

As relatively new owners of some 77,000 ha of high biodiversity land, the Moletele CPA is an important custodian of natural resources and biodiversity in the lower Olifants. This year AWARD initiated the **Moletele Youth Project**, which has engaged eight youth (all female) in an eco-literacy and capacity development program consisting of nine contact sessions as well as field visits to local biodiversity-based enterprises, a shared learning event on beneficiation frameworks in May with the Legalameetse and Mametja communities, and an opportunity to participate in the eco-literacy bush camp at Legalameetse Nature Reserve in September. An innovative field book was produced which will help the Moletele CPA to document the biodiversity on their land.

Two sub-grant projects initiated in 2017 address both municipal capacity development and better water resources management (see KRA 2). A project implemented by WRP Consulting Engineers supported **water conservation and demand management (WCDM)** in Maruleng and Ba-Phalaborwa LMs (as required under the NWA of 1998). High water consumption increases vulnerability to climate change and reduces downstream flows into the Kruger National Park (KNP) and Mozambique. Achievements this year included:

- Water Conservation and Demand Management Strategies and Business Plans proposed for the two municipalities. These plans combined technical and financial information[2], providing a vehicle for Council to influence the IDPs.
- A schools' awareness campaign in October 2017 reaching 5,500 learners at six schools.
- An information session on improving water management practices in Hoedspruit, at which local leaders and civil society groups committed to work with Maruleng LM to decrease water usage and find solutions to enforcement challenges.

[2] The work included a comprehensive analysis of water use through flow and pressure logging, assessment of water supply infrastructure, a survey of consumer attitudes and behaviour and a billing analysis (further details in previous annual report).

- Action by the Maruleng Municipal Manager to issue a water restriction notice and start the process of gazetting by-laws to enable water restrictions, in response to a presentation of the project findings. The need to reduce leaks and wastage and improve billing was also noted.

The **wastewater treatment works** project (implemented by Water Group) developed turnaround plans for the Lulekani, Namakgale and Phalaborwa municipal wastewater treatment plants in the Mopani District. These plants are a major contributor to poor water quality in the Lower Olifants, affecting water quality and biodiversity downstream.

- In January, three Risk Abatement Plans for the three wastewater plants[3] were supported by the Mayor and senior office bearers at a feedback session for the Ba-Phalaborwa Local Municipal Council. The need for urgent intervention at the Phalaborwa plant was acknowledged. A way forward was discussed for addressing the challenges faced by the municipality and the risk profiles of the treatment works.
- Accredited certificates were presented to the 20 wastewater treatment process controllers trained through the project, providing these key staff with an opportunity to be recognised by the Mayor. These process controllers have also been registered with DWS.
- Incident management protocols and A3 poster summaries of these were handed over to each of the three plants.

Figure 11: Left - Process controllers doing the flow measurement practical competence assessment. Right - Technical assessment of a plant: practical demonstration at Namakgale

After the close-out of the two grants, AWARD continued to work on embedding the findings within municipal processes and facilitating the involvement of civil society. A shared learning event on WCDM was held in July and included a public meeting in Hoedspruit and a technical feedback session with the District Director of Technical Services at the Mopani DM. At another event in August, the WWTW turnaround plans were presented to the Mopani DM Water Services Department and other stakeholders and a way forward planned. In September, the executive committee of the Water & Sanitation Forum requested assistance with setting up a public-private partnership model to implement the turnaround plans for wastewater management in Mopani DM.

Since many of the effects of climate change and natural resource depletion are experienced directly by civil society, the **Civil Society Organisation Support Initiative (CSO-SI)** aims to support the sector by mobilising civil society, supporting diversity and providing opportunities for exploring self-organisation and collective action. The final round of CSO Indabas was held in October 2017 in the upper, middle and lower

[3]Based on detailed plant assessments and process and risk audits.

catchment. These were attended by 43 organisations and 77 people in total. The focus was on consolidation and reflection on the achievements of the Indabas, which include more than 30 letters of complaint about environmental issues, more than 500 conversations on climate change, a supportive exchange of information and a vigorous WhatsApp group, and collaboration with other large CSOs also interested in supporting civil society. Participants received certificates of attendance. Achievements since the Indabas include:

- Development of a Position Statement reflecting a collective vision among CSOs across the whole catchment.
- Continued extensive use of the Olifants CSOs WhatsApp group to report back on meetings, share information, opportunities and resources, and coordinate activities. AWARD was pleased to see the extraordinary mobilisation of CSOs in the catchment around the Mining Charter this year. The networks set up and the resources provided through the CSO Indabas have likely played a part in facilitating this activity, although this has not been formally evaluated. AWARD staff continue to participate in the WhatsApp group.
- Part 1 in a series of "How to..." booklets produced with the Legal Resources Centre, entitled "How to collect photo and video evidence".

The **Changing Practice course** for CSOs came to a close in September 2018. This sub-grant to the Environmental Monitoring Group (EMG) supported 17 activists from seven CSOs spread across the catchment in an in-depth transformative learning process. Participants developed their skills of inquiry, research, analysis, communication and critical reflection, as well as emotional skills such as confidence, discernment, compassion, empathy and solidarity. They were able to understand the impacts of local practices on the health and resilience of the Olifants Catchment and to critically reflect on their own practice as civil society organisations. They also strengthened their own networks for knowledge and support. Achievements included the following:

- Graduation of 17 (11 female) participants with NQF Level 4 certificates accredited by Rhodes University, and certificates of attendance for a further two participants.
- Active and creative engagement with the seven "change projects" developed through the course, on issues ranging from pollution of water sources to corporate compliance with environmental legislation, to empowering communities through food gardens. These projects all led to better relationships with communities and other stakeholders. One project catalysed a growing women's movement in the middle catchment.
- A successful partners' meeting in August which showcased the important work being done by community-based activists to monitor and challenge environmental injustices. This led to several valuable ideas for taking the work forward.
- Publication of seven case study booklets and seven knowledge network booklets by participants, many of whom were first-time authors. These resources can be used by them to take their cases forward.
- Four of the case studies informed the IWRM Module 3 training in September 2018, indicating the integration across RESILIM-O projects.

An important insight from this project is that professional networks and organisations, universities and government agencies also need capacity development – to learn to work with civil society activists in solidarity and collaboration, rather than simply offering pre-made solutions or training.

Figure 12: Changing Practice course graduation in Johannesburg, 7 August 2018

In addition to the RSI work, Phase 2 has focused on several **other capacity development initiatives** in response to the scarcity of professional skills in the climate change, water and biodiversity sectors in the catchment. These include a program for interns and mentors and support for institutions of higher learning.

The **interns and mentors project**, which ran from June 2016 to June 2018, allowed AWARD to provide an important workplace-based learning space to build the capacity of young professionals working in natural resource management positions. A total of 13 young people benefited from AWARD internships over the two-year period, as well as 11 interns from five partner organizations. Learning methods included group contact sessions, job shadowing, undertaking practical tasks, receiving feedback, sharing and networking, mentoring and training others as well as personal self-reflections. Indirect beneficiaries of the project included the six CPAs at Legalameetse and their 24 Youth Forum members who received training from the AWARD interns over the two years. A key learning from the project was the value of nurturing both interns' and mentors' abilities to reflect on their own learning. This helped to develop emotional intelligence and self-awareness and helped to resolve issues more effectively as they arose. Regular communication and check-ins were also important for resolving problems and for keeping the purpose of the internship program in focus.

Growth areas for interns have included technical skills, insight and understanding, skills such as facilitation, translation and data management, and attitudes and values important for success in the workplace such as empathy, perseverance and determination. Some 75% are still in or likely to remain in the NRM sector, and 56% are still working in the catchment. Four have become permanent staff members at AWARD.

The **capacity building for institutions of higher learning** project (a sub-grant implemented by Rhodes University) engages five universities or institutions of higher learning (IHLs) in the larger Limpopo, three in South Africa and two in Mozambique, with the aim of strengthening systemic and social learning approaches to reduce climate change vulnerability in the catchment. This year:

- The Limpopo Basin Curriculum Innovation Network (LBCIN) e-learning platform[4] was completed in February and is available to all IHL partners. Relevant materials will be added by the partners under six thematic areas[5] as the project expands, and may include research, case studies,

[4] https:/lbcin.org
[5] Water system, land system, climate system, governance system, economic system, and social learning and systems thinking.

practical activities, tools for student engagement and learning, methodologies and research questions.

- LBCIN teams at each institution were finalized, comprising members from different disciplines, and in some cases, different faculties.
- Partner institutions completed reviews of ten learning programs using the LBCIN Curriculum Review Tool.
- The framework for an inter-institutional, transboundary field-based course was collaboratively developed by the partners.

2.2 KRA 2: Water Security and Water Resources Protection for Improved IWRM

Key Area 2 objective: To enhance long-term water security and protection by supporting collective action, informed adaptation strategies and practices and tenable institutional arrangements for transboundary IWRM.

This component of the program focuses on supporting the emerging governance of the Olifants Basin so as to secure sustainable plans and actions for water resources protection within Integrated Water Resource Management (IWRM). This is being done through:

1) governance support to various institutions,
2) the development of tools and protocols in support of a decision-support system for IWRM and training in the use of these tools, and
3) mobilising custodianship of residents over water resources through the development of networks with greater capacity for monitoring and action in:
    a. the lower Olifants (LORIN or Lower Olifants River Network)
    b. the middle Olifants (MORIN - through a grant)
    c. Protected Areas in the Lower Olifants through a network known as Lower Olifants River Health Forum (LORHeF)

A cross-cutting theme involves understanding the potential impacts of climate change through the incorporation of predictions for both flow and water quality.

Under **water governance**, the state of the Department of Water and Sanitation (DWS)[6] remains deeply concerning, particularly with regard to the dissolution of the Catchment Management Agencies (CMAs) reported last year. In the first quarter AWARD and several other NGOs contributed to a report drafted by the South African Water Caucus outlining all the areas of concern. There was significant media exposure of the report, including interviews on SABC. Sharon Pollard was invited to be part of the external reference group of the Water Research Commission (WRC) for the proposed new National Water Resources Management Agency (or "one CMA") in March, but the process of moving towards a single CMA was subsequently put on hold by the new Minister of Water and Sanitation. AWARD, together with the South African Water Caucus, has continued to lobby for clarity on policy. In September, Sharon was a panellist in a WRC review of the National Water Act (NWA), which was deeply divided on the need for a new NWA. AWARD and others concluded that the legislation is adequate – it simply needs to be implemented. Much of the work under RESILIM-O directly contributes to strengthening implementation of the NWA.

[6]The authority responsible for ensuring the sustainability of water resources in South Africa

Highlights of the year include:

- Two more modules (4-5 days each) of the IWRM Decision-Support System course for DWS staff were held in May and September. These focused on accessing, storing, manipulating and analysing water quality data efficiently and effectively and developing a holistic, systems understanding of the factors affecting water quantity and quality in the different sub-catchments of the Olifants basin.

Figure 13: Participants compiling a climate change concept map at the IWRM Decision-Support System training in September 2018

- Our persistent efforts to address unlawful water use in the Lower Olifants finally started to bear fruit. Several directives against farmers have now been issued by Compliance Monitoring and Enforcement officials from the DWS Regional Office in Nelspruit. AWARD has acted as a "watchdog" in this regard by regularly updating DWS and providing data and evidence.
- In response to below average rainfall and low flows in the Olifants River in January and February and again in August and September, AWARD, together with SANParks, responded proactively to help mitigate the impacts:

Figure 14: Flow Tracker App showing flows falling below the Environmental Water Requirements

Two releases from De Hoop dam were requested and granted, in January and September, according to the Emergency Operating Rules developed through RESILIM-O.

We raised awareness among civil society groups and water users by hosting two information sessions on improving water management practices in Hoedspruit, which were attended by local leaders, members of the community, the education sector, the chamber of business and the property sector. We also raised awareness about the drought situation at three Catchment Management Forum (CMF) meetings in the middle and lower catchment. Press releases generated considerable interest on the AWARD Facebook page.

AWARD and sub-grant partners WRP engaged the Maruleng Municipal Manager on the drought context and the water usage data for Hoedspruit, which resulted in action towards (see KRA 1).

Much of our focus has been on building capacity and networks for collaborative action through a custodianship or stewardship approach. In resilience terms, this is a form of polycentric governance, which in some instances has been able to compensate for the weakness of DWS structures. In this regard, progress has continued with building a network for river health in the Lower Olifants (LORHeF) among landowners from protected areas around the Kruger National Park. This network will facilitate the inclusion of aquatic biodiversity and health into a group largely focused only on terrestrial biodiversity. Consultative visits and a follow-up workshop were held in April and May with six private landowners to understand their needs and interest in being part of the Lower Olifants River Health Network. An official launch is planned for November.

Two other emerging networks are also being supported, one in the Lower Olifants (LORIN) and another in the middle ORC (MORIN). Evidence of a growing crisis in terms of water security has been gathered in the first half of the year and has been consistently communicated with DWS and others. Our long-term

partnerships with SANParks and other partners in the Lower Olifants have been successful in creating a functional governance network which has improved water resource management by strengthening monitoring, data redundancy, information flows and responsivity (see previous annual reports). A large meeting of LORIN is planned for November to consolidate understanding and action around the growing crises. Similarly, work has started (through a sub-grant) on project networks for collaborative, systemic action in the Middle Olifants. This work, being implemented by Rhodes University, aims to build a similar cross-sectoral network for collaborative, systemic learning and collective action in the Middle Olifants. The intention is to ensure that small-scale and emerging farmers are included and that the network does not only represent large water users.

The sub-grant project **networks for collaborative, systemic action in the Middle Olifants** was designed as part of a strategic response to the ongoing institutional uncertainty within the DWS. Our long-term partnerships with SANParks and other partners in the Lower Olifants have been successful in creating a functional governance network which has improved water resource management by strengthening monitoring, data redundancy, information flows and responsivity (see previous annual reports). In resilience terms, this is a form of polycentric governance, which in some instances has been able to compensate for the weakness of DWS structures. This sub-grant, implemented by Rhodes University, aims to build a similar cross-sectoral network for collaborative, systemic learning and collective action in the Middle Olifants.

The project so far has focused on scoping the existing networks and institutions in the area to guide the selection of stakeholders to engage, leveraging contacts made through other RESILIM-O projects. The intention is to ensure that small-scale and emerging farmers are included and that the network does not only represent large water users.

In support of good governance and the protection of freshwater resources, AWARD has continued to develop a suite of **management tools and protocols** as part of the INWaRDS decision-support system.[7] This allows for an integrated approach to flow and water quality monitoring, to ensure compliance with standards set by government and stakeholders and is a first for the country and the region.

- The Flow Tracker mobile application[8] has now been downloaded 123 times and there has been interest in adapting it for use in the uMngeni and Inkomati catchments. Disaster Managers from Limpopo Province were trained in the use of the app for early flood warning at a shared learning event in July (see KRA 4).
- The INWaRDS decision support system will be used to integrate real-time data from a collaborative research project on river health in the Olifants gorge led by SANParks. These data will be used to explore the socio-economic impacts of poor river health.
- A web-based, mobile-friendly platform on which citizens can upload rainfall data was developed this year. This has helped to fill gaps in the rainfall data for the catchment due to the decreasing number of South African Weather Service rain gauges, and also to reduce the costs associated with accessing rainfall data.
- The near real-time flow and water quality monitoring system, including our three flow loggers and one water quality probe, has continued to provide important

Figure 15: New conduit pipe for the water quality probe, secured to the rock bed using metal rods and concrete

[7] Integrated Water Resources Decision Support System
[8] Available at https://play.google.com/store/apps/details?id=flowtracker.award.org.za.flowtracker&hl=en

redundancy for the aging DWS monitoring network. New housing for the water quality sensor was designed and installed in response to ongoing problems with this sensor.

- The messaging system for the Early Warning System was expanded to include DWS officials with the hope of increasing awareness of the drought and prompting action with regard to restrictions. The system sends SMS alerts to selected stakeholders and decision-makers to inform them in real-time of concerns related to flow and water quality.

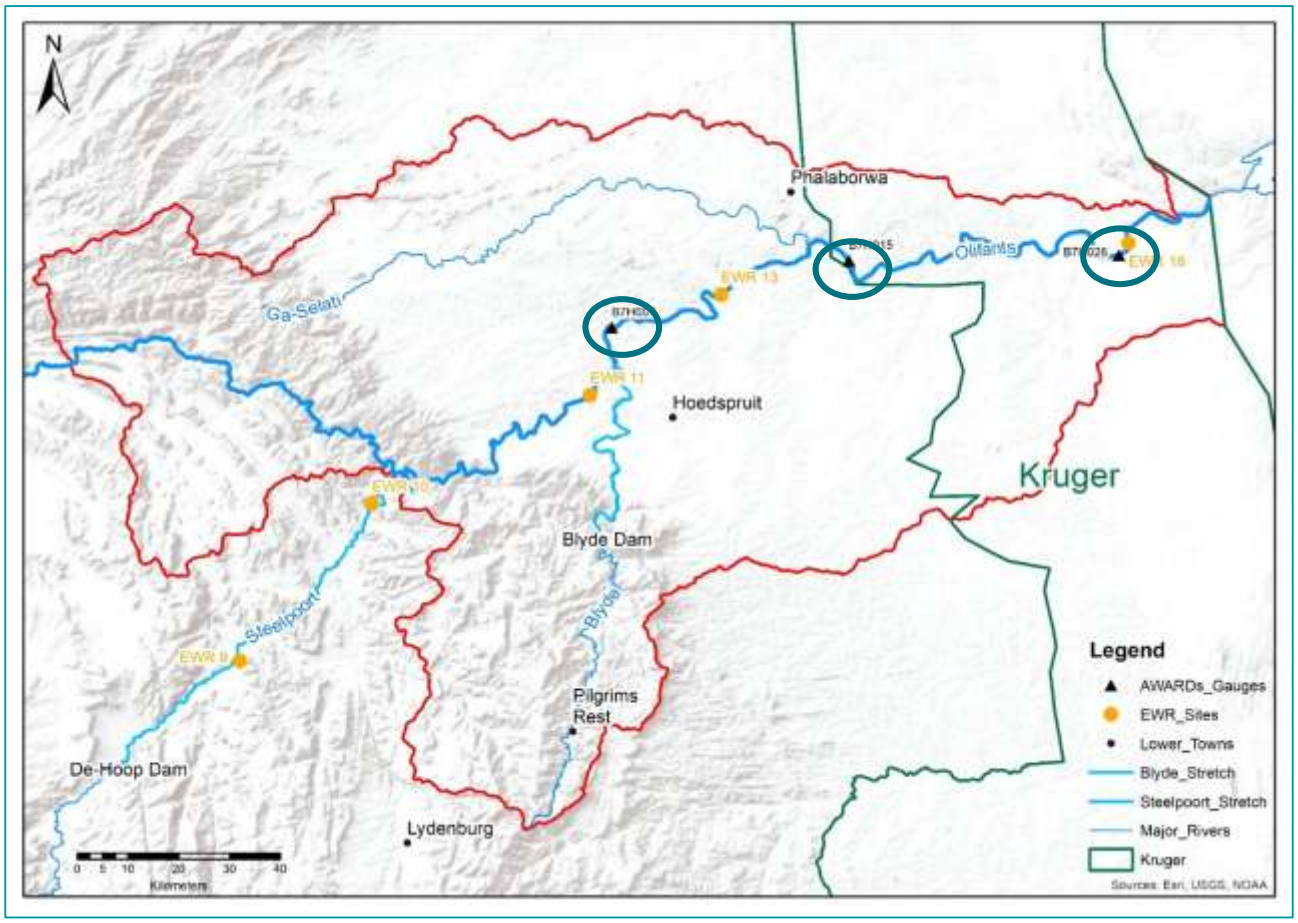

Figure 16: Location of RESILIM-O gauges

2.3 KRA 3: Natural resources management of high-priority areas

Key Area III objective: To conserve biodiversity and sustainably manage high-priority ecosystems by supporting collective action, informed adaptation strategies and practices and tenable institutional arrangements.

Work in this KRA is focused in two geographical areas: the Blyde River sub-catchment and the Legalameetse Nature Reserve in the upper Selati sub-catchment. Both are priorities for RESILIM-O because they are high biodiversity areas and strategic water source areas. The upper reaches of the Blyde Catchment in the north-eastern Drakensberg escarpment receive very high rainfall (1000 to 1500mm) and are critical for water security to downstream towns and communities (Bushbuckridge, Acornhoek, Hoedspruit and Phalaborwa amongst others) and agriculture, especially the large Hoedspruit farming area which is fully dependent on the Blyde Catchment for irrigation water. Although this area is partially

protected through the Blyde River Canyon Nature Reserve (BRCNR) along with a few smaller nature reserves, large portions of these catchments have been transformed through plantation forestry. The Blyde area has been the focus of numerous initiatives and considerable investment to clear alien vegetation and improve water flows but is still being threatened by invasive alien plant species and soil erosion, particularly associated with timber plantations. Legalameetse, on the other hand, has been afforded protection as a provincial reserve but as a park under land claim, the institutional arrangements are in a state of flux. Indeed, this project is the first of its kind in the Limpopo Province and a priority for the MEC.

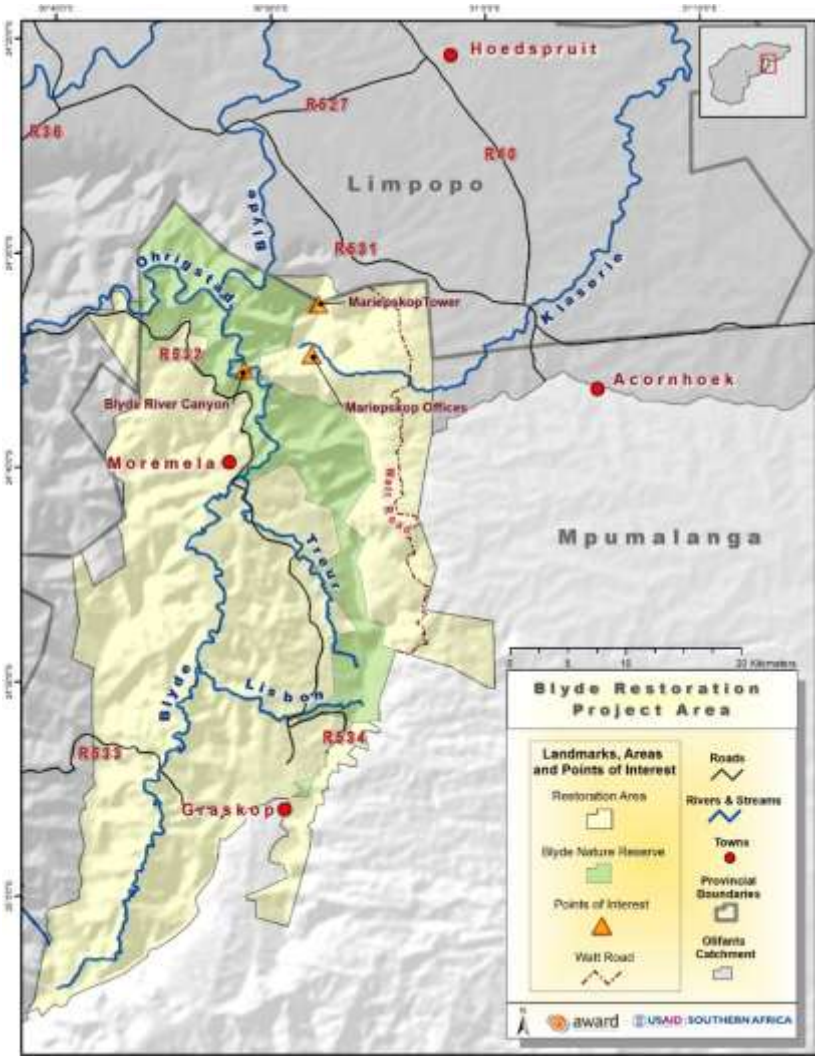

Figure 17: Blyde ecosystem restoration project area

Given the extensive problem of invasive alien plants in the high biodiversity hotspot of the upper Blyde sub-catchment (91,800 ha), **the Blyde ecosystem restoration project** aims to support the development of coordinated and integrated planning and implementation of restoration activities. The Blyde Restoration Group, initiated through RESILIM-O and coordinated by AWARD and K2C, has proven a very effective "space" for social learning and collective agency. Members of the group have greatly expanded the scope of their collaboration – from an initial agreement to align their clearing plans to working on a range of issues this year: an invasive species inventory map, a management plan for the Blyde Nature Reserve, a plan for clearing inaccessible areas in the Blyde Canyon, a restoration strategy for the Lowveld Plantations, a streamflow monitoring plan, wetland assessments and a timber biomass assessment, as well as securing additional funding to support this work (see Box 1). Our close collaboration with the K2C has paid significant dividends this year and ensured strong alignment between restoration and conservation management practices in the area. Highlights of the year include:

- Improved collaboration between partners (see Box 1).
- Improved biophysical conditions in the 8,289 ha of land where clearing[9] has taken place this year. Alien plant density in these cleared patches was reduced from 5-30% to around 0%.
- The implementation of the Inaccessible Areas Clearing Plan, which is an innovative collaboration between the High Altitude Teams (HAT) and the South African Air Force to provide helicopter access to clearing teams, allowing them to clear alien vegetation from parts of the Blyde Canyon that were previously completely inaccessible.

Box 1: Areas of collaboration secured through AWARD facilitation

- an invasive species inventory map,
- a management plan for the Blyde Nature Reserve,
- a plan for clearing inaccessible areas in the Blyde Canyon,
- a restoration strategy for the Lowveld Plantations,
- a streamflow monitoring plan,
- wetland assessments
- a timber biomass assessment, and
- securing additional funding to support this work

- Securing significant additional funding through a Drought Response proposal developed collaboratively by AWARD, WfW, SANParks-BSP, K2C, HAT, Working for Wetlands and WoF (and solicited by DEA). This proposal includes a restoration plan for the Lowveld Plantations, potential beneficiation opportunities and innovative plans for the use of fire as a restoration tool. A proposal for Land User Incentive funding through DEA was also developed in collaboration with K2C and the Blyde CPAs, which we hope will be funded early next year.
- The Invasive Alien Plant Inventory Map was completed for the Blyde Nature Reserve and the Lowveld Plantations. This is an important planning resource for the abovementioned interventions.
- Significantly improved relationships between the NRMPs and the Blyde CPAs (the new land owners). These two groups of stakeholders had not previously engaged in a meaningful way. A broader set of Blyde stakeholders have also been drawn in to the process (municipalities and other community representatives).

Figure 18: Jan Graf (in orange) with the High Altitude Teams at their camp on Hebron Mountain during a three-week invasive plant control operation. The teams were flown in by helicopter under the Inaccessible Areas Clearing Plan.

[9] Clearing was mainly in grassland areas and the main species cleared were pines, gums, silver and black wattles, sweet prickly pear, American bramble and Blackwood. The first four of these are ranked as high-priority invasive species of grasslands in SA (CSIR national prioritisation, Le Maitre *et al*. 2012). Silver and black wattle are the biggest concern for the riparian zone of the Blyde River itself.

The natural development of the project has also brought more links with downstream stakeholders interested in safeguarding ecosystem services and water flows. This has created possibilities for wider support of the restoration work, as well as capitalising on AWARD's earlier Save the Sand work.

The **Restoration Custodianship project** (a grant implemented by K2C began work in August 2018), will complement the Blyde ecosystem restoration project by supporting and enhancing alien plant control and restoration efforts in the larger Blyde area as well as capacity development of local land owners and community members who will undertake clearing. Critical buy-in was obtained from the CPAs and other stakeholders at an inception workshop, a project coordinator has been appointed, and the appointments for the clearing teams and other positions will be made during October.

Figure 19: Restoration custodianship inception and planning meeting in September, hosted by K2C and attended by Blyde Restoration partners and the Blyde CPAs

Complementing the work described above, the work on **Sustainable Forest Management** through a grant led by the Institute for Natural Resources (INR), supported capacity development for compliance, monitoring and enforcement in the plantation forestry industry. Key stakeholders were brought together to collectively understand the constraints and barriers in the forestry operations in the Blyde and Klaserie sub-catchments that are contributing to biodiversity loss and water resource degradation. A capacity building strategy was developed in response to the challenges identified, which will enhance compliance with the national standards for Sustainable Forest Management and thereby reduce the negative impacts of forestry operations in the area.

The capacity development included training and compilation of eight different support tools and guidelines, including support for drafting of control plans within forestry areas, wetland delineation, transboundary invasive species management, establishing a community of practice, exploring opportunities and partnerships for successful transfer of the Lowveld Plantations, business risks and trade-offs as well as a compilation of relevant resources and training opportunities. These collaboratively developed tools were enthusiastically received by the partners at the final project workshops in May.

A second major thrust for AWARD under KRA 3 is that of support for new governance and management arrangements for the Legalameetse Nature Reserve (LNR) in the upper Selati sub-catchment, one of many reserves that have been claimed in Limpopo. The **co-management support project** aims to pilot effective support for co-management of protected areas[10]. AWARD has been working with the six CPAs[11] involved in the land claim since 2015 to strengthen communication, trust, collaboration and good governance in order to make a co-management agreement more sustainable and effective.

Highlights for the year include:

[10] All provincial parks except one are under land claim in Mpumalanga and Limpopo and are legally required to be co-managed by the new land owners and the relevant conservation authorities. Without proper processes in place for good governance through co-management, we are at risk of losing prime biodiversity areas as well as the benefits to claimants and the wider community. However support for such processes is almost non-existent in South Africa at present.
[11] Communal Property Associations are an institutional form designed to represent land claimants.

- The implementation of the MoU among the six CPAs. This was a significant development as the MoU serves as a legal document and mediating tool to ensure equal sharing of benefits among the CPAs and address disputes and governance issues that arise.
- Two successful shared learning events allowed for sharing of co-management lessons between CPAs. The first brought members of the Legalameetse CPAs together with members of the Mametja community (see KRA 4) and the Moletele CPA (see KRA 1) to share their experiences with land tenure and beneficiation models. The second event in August provided Legalameetse CPA members an opportunity to visit the Makuleke CPA in northern Limpopo province[12] to share their experiences of co-management.
- Growing eco-literacy and interest in natural resource management and conservation among the youth. A Youth Forum event in Q1 and two "eco-literacy bush camps" in Q2 and Q4 aimed to build and support socio-ecological identity amongst the youth with the land that has been claimed on their behalf. Field-based learning activities included walks, collaborative development of a biodiversity handbook, appreciation of the cultural and ecological values of birds and indigenous plant species, and the experience of camping in the reserve. Young people are increasingly realising that they can use the knowledge and skills acquired through RESILIM-O to start their own enterprises based on natural resources or indigenous knowledge, and some are thinking of building career paths using the skills acquired.
- Inauguration of 13 new Environmental Monitors drawn from the Legalameetse youth, under the K2C Environmental Monitors program. The opportunity for these positions was created through RESILIM-O.
- Progress with the declaration of a 1,655 ha portion of Madeira Farm as a protected area (which would expand the area of LNR) – a process led by K2C, the Madeira CPA and LEDET with support from AWARD. The intention to declare has been published although the declaration has not yet been finalised, so these hectares have not been included in the annual total.

Figure 20: Left - Legalameetse youth learning about the socio-ecological value of plant species in Legalameetse Nature Reserve during a bush camp in September. Right - Legalameetse CPAs sharing their experiences with Mametja community farmers and Moletele CPA members during the beneficiation shared learning event in May

Unfortunately the situation with the four CPAs (Paris, Cyprus, Madeira and Balloon) that still need to finalise their land claims and complete their CPA registration has not yet been resolved, after more than a year. This responsibility lies with the Department of Rural Development and Land Reform (DRDLR). Despite

[12] The Makuleke community was the first community in South Africa to successfully claim land under a protected area.

pressure from AWARD, the CPAs and the Legal Resources Centre (LRC), and emails from the CPAs to the Office of the President, it now appears that it may not be legally possible for them to register as independent CPAs. Legal advice is being sought from the LRC.

The delay in signing the LNR co-management agreement also remains a challenge. Ironically, the growing capacity and agency of the CPAs has contributed to the delay, because the CPAs, as landowners, have a legitimate wish to play a more active role in the procurement and recruitment processes at LNR but government seems unwilling to support this, citing LEDET policy. We feel that it is in the interest of good co-management for communities to be involved in processes relevant to their land, even if through informal structures.

For co-management arrangements to work, beneficiation (financial and non-financial) from the protected area needs to be addressed. The **conservation-based entrepreneurship project (CbE),** supported through a sub-grant to INR, was designed to unlock the potential of conservation-based beneficiation models to enhance the resilience of local livelihoods and reduce vulnerability to climate change. As the initial stages of a much longer-term process, the project achieved the following:

- Enhanced capacity of the LMC and youth forum members to incorporate CbE into development planning and establish the partnerships they need to operationalise these plans. This capacity includes skills and knowledge (business planning, legislation affecting developments in protected areas, beneficiation models and decision-making skills) and collective agency to co-develop ideas and take them forward (through exploration of a community cultural day in the reserve and learning exchanges with other CPAs).
- Development of a basin-level guideline for responsible natural resource-based beneficiation in the Lower Olifants which was well received by stakeholders K2C, Conservation SA, SANParks, the Limpopo Economic Development Agency and Maruleng Municipality.
- Development of other tools and guidelines including an integrated beneficiation model report, a preliminary business plan selected initiatives (e.g. Legalameetse Trail Adventures), a scoping report on selected opportunities in Mametja, several flyers and a game for teaching decision-making entitled “Crossroads: A game of decisions and consequences”.

Through the work in LNR it is clear that development is taking place on a seemingly ad hoc basis and without consultation with the new landowners. This makes planning strategically for beneficiation very difficult and highlighted the need for a medium- to long-term Development Strategy for the reserve. AWARD developed a proposal and is now working collaboratively with EMROSS through a new sub-grant, to continue working with the Legalameetse CPAs on a Development and Beneficiation Strategy to guide conservation-based beneficiation opportunities. Initial engagements and field visits were held during September.

2.4 KRA 4: Support for climate change adaptation strategies and practices

Key Area 4 objective: To reduce vulnerability to climate change and other factors by supporting collective action, informed adaptation strategies and practices and tenable institutional arrangements.

Work under KRA 4 falls into three main areas: (1) facilitating adaptation by engaging stakeholders in climate change conversations that link to their values, needs and interests, (2) embedding climate change into disaster management at the municipal level, and (3) enhancing the resilience of small-scale farmers to climate change.

In the first area of work, the **Dialogues for Climate Change Literacy and Adaptation (DICLAD**) project showcases a new approach for making climate change "everyone's business" by facilitating dialogues to help stakeholders think about climate impacts and adaptation options. The innovation here is designing systemic dialogues around people's areas of focus, values and interests, allowing them to construct new meaning from what is relevant to them. The project makes an important contribution to the emerging science of effective climate change communication, by providing an example of a process that is embedded in rural development projects rather than as a stand-alone intervention, and which focuses on adaptation, often more relevant in developing country contexts.

- This year we held dialogues with 295 individuals, mostly small-scale farmers in the middle and lower Olifants but also DWS officials attending the IWRM course (see KRA 2). The AgriSI farmers are now the first stakeholders to have gone through all three modules of the DICLAD process, which progressively deepens the exploration of climate change impacts and adaptation options.

Figure 21: Agri-SI farmers participating in the DICLAD Module 3 workshop in Motetema, 15 August 2018. Youth farmers from the community assisted AWARD facilitators (Ancois de Villiers, bottom right corner) with translations and introducing the elderly farmers to new technology such as cell phones to access weather forecasts

- Using locally-based young people (Environmental Monitors and youth farmers) to assist with translation and facilitation at DICLAD workshops has been a highly successful strategy, particularly when introducing the elderly farmers to new technology such as using cell phones to access weather forecasts. This also benefits the youth by providing an opportunity to develop their facilitation skills, confidence and ability to speak in public.
- As part of our commitment to sharing lessons from the DICLAD process at provincial and national levels, we participated in stakeholder engagement workshops and provided detailed comments on the draft national Climate Change Bill. This is a momentous step forward for climate change legislation in South Africa, with the potential to legitimate the adaptation efforts of champions in government, civil society and the private sector. We did, however, identify some concerns, one of which is that CC will still be an "unfunded mandate" of local government.

A second thrust has been on **upscaling and integrating climate change into disaster risk assessment and planning** within municipalities, in keeping with South Africa's pledge (via the Durban Charter) that municipalities will consider the impacts of climate change on basic services. As a strategy to scale up capacity development, we have focused on establishing learning networks to facilitate exchange of lessons, experiences and expertise in climate change adaptation (CCA) amongst Disaster Managers at local and district levels. Highlights include:

- In November 2017 we facilitated the second round of learning exchanges for the Disaster Managers' networks in Limpopo and Mpumalanga. These focused on planning and management of flood risk in the face of climate change, and application of geospatial information systems in disaster management.

- In July, a shared learning event was held in partnership with the Limpopo branch of the Disaster Management Institute of South Africa (DMISA) at the Mopani Disaster Management Centre in Tzaneen. This was attended by Disaster Managers from district and local centres throughout the province.
- Sixty-five disaster management stakeholders increased their capacity to adapt to climate change through this project. They have taken proactive, self-initiated steps to continue with network activities started by AWARD and have grown and developed their capacity to manage networks for learning and collaborative planning. AWARD will remain a member of these networks.

Challenges have included limited access to information relevant to disaster management, much of which is held by private companies, institutional flux within local government, rigid institutional protocols which constrain innovation, and weak links within the Disaster Management Centre hierarchy.

Figure 22: Left - Sharon Pollard (AWARD) presenting a demonstration on the use of the Flow Tracker App as part of an early warning system to inform disaster management during the Shared Learning event in July. Right - Disaster management staff discussing the importance of implementing the recommendations for flood risk reduction developed under RESILIM-O at the Maruleng DMAF meeting, August 2018

A third thrust, and one which falls under the Resilience Support Initiatives (see KRA 1), the **Agri-SI (Agricultural Support Initiative)**, is designed to strengthen resilience and adaptation of small-scale farmers to climate change through a number of collaboratively-designed adaptation options. These include improved soil and water conservation techniques,[13] farmer learning groups, collective action and livelihood diversification. These strategies are underpinned by two sub-grants to support small-scale farming in (a) the lower Olifants (Mametja area) and (b) two districts in the middle Olifants (Sekhukhune and Capricorn). This project has managed to leverage a small amount of additional funding.

The Agri-SI project made significant progress this year with creating networks and fostering collaborations which have improved total reach and created integrated farmer support systems:

Box 2: Networks for farmers facilitated by AWARD

- Two networks of farmer learning groups in the Lower and Middle Olifants
- Climate-smart Agroecology Network with 32 members from partner organizations and related projects in the region
- Two Youth in Agroecology networks (Future Farmers & Permaculture Youth)
- "Don't SEED my right Network" for farmer-centred advocacy on the right to food systems

[13] In the case of small-scale farming, agro-ecological approaches are widely considered to support farmers to be responsive to and adapt to change. These approaches not only focus on the technical aspects of soil and water conservation but also on social processes of learning and collective action. Farmers participate in experimentation and monitoring their own practices, creating a vision of development as social learning.

- Several networks were established for learning and sharing (Box 2), supported by six WhatsApp groups to facilitate communication and mutual support.
- A cross-learning trip to the Middle Olifants for 15 farmers from Mametja (Lower Olifants) boosted farmers' confidence and pride in being farmers and helped stimulate interest to innovate, for example, to engage in seed saving. Practices such as singing cultural songs at events have also helped to grow farmers' identity and pride.

Figure 23: AWARD staff members buying organic veggies and herbs from a local AgriSI-supported smallholder farmer from Mametja

- Collaborations with Hoedspruit Hub, the Amanzi for Food Project and the Legal Resources Centre this year have strengthened our capacity to support smallholder farmers in both practice and policy.
- More than 50 youth farmers were provided with capacity-building support, training and access to resources such as tanks and fencing, through our partnership with Hoedspruit Hub.[14]
- Our partnership with Hoedspruit Hub has also enhanced farmer livelihoods by providing marketing support for organic vegetables and herbs (20 farmers in Mametja) and organic mango production in Lepelle (30 farmers).

Figure 24: Youth in Agroecology training workshop, 23-27 July 2018

[14] This has expanded the reach of the project because the majority of farmers in the learning groups are over the age of 55.

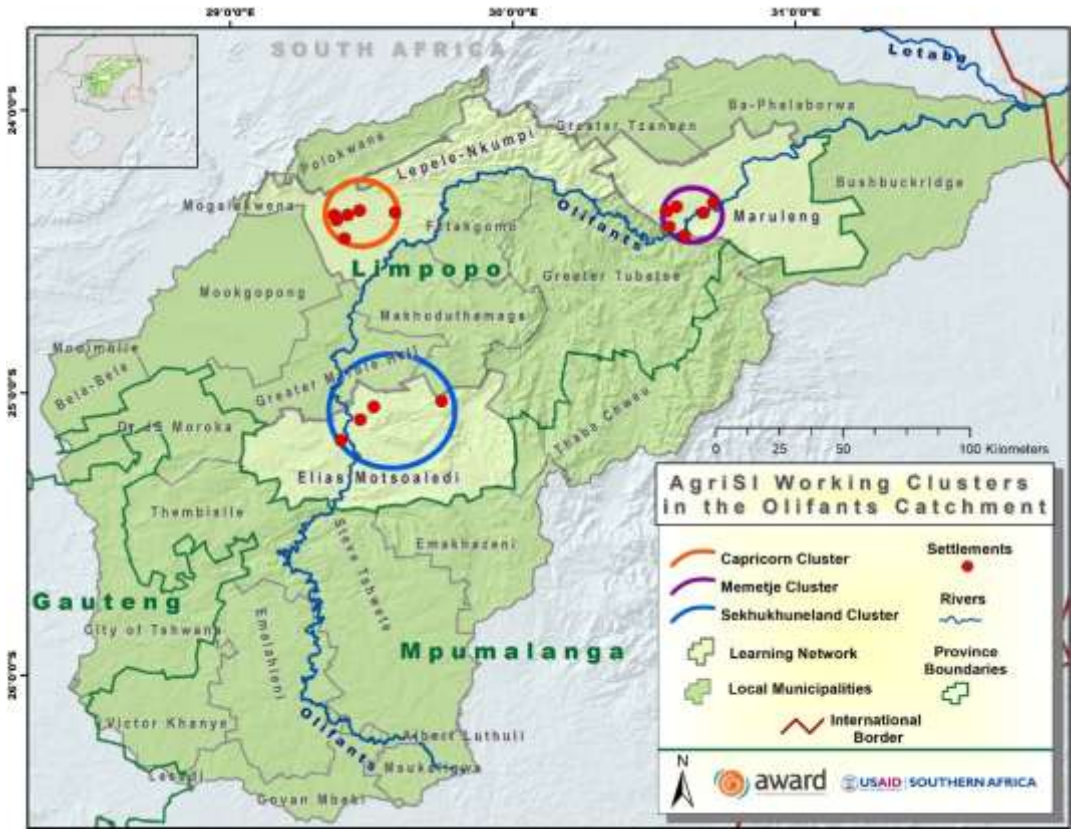

Figure 25: Map showing Agriculture Support Initiative project areas

Small-scale farming in the lower Olifants is being supported by a grant to **Mahlathini Development Foundation**. This year 105 farmers (70% women) were involved in six learning groups. Groups in The Oaks and Willows have disbanded, however participation in the other five villages has been good. Farmers are still battling with serious water supply problems, but there are several examples of how they have adapted their practices in response to the hot and dry conditions – these include using shade cloth tunnels, trench beds, mulch and eco-circles. Field-based training this year included use of hand-held and animal-drawn planters, mixed cropping, field cropping, tunnel construction, planning, planting schedules, record-keeping and herb production and marketing.

The project exceeded its targets for the percentage of farmers applying climate change adaptation (CCA) practices: 31% of farmers have used more than 3 different practices, and 50% have used 2-3 practices. Eighty-five percent of farmers experimented with new innovations, trench beds being the most popular because of the clear benefits for crop growth, and 44% engaged in collaborative activities. Practices that improved vegetable production in the short term were more widely used than practices aimed at improving soil and water conservation in the longer term. Case studies were compiled on some of the innovations being tried by participants. The proportion of farmers saving seed increased from 25% last year to 55% this year.

Highlights and innovations in the project include:

- Eighty-six percent of participants have increased access to food from their gardens since the start of the project (on average 2.3 types of vegetables eaten 1.4 times per week), with 52% harvesting, eating and selling “new” crops introduced through the project (kale, mustard spinach, lettuce, spring onions).
- Twenty-seven percent of participants have increased their income since the start of the project, and 12% have increased the diversity of their activities and livelihood options. Herb farmers supported through a partnership between MDF and Hoedspruit Hub started to sell their produce in

Hoedspruit in September, with sales in the first month of around R600 per farmer, an exciting milestone.

- The use of participatory video as a tool to build smallholder farmers' capacity to self-organize and act collectively to address their challenges with the supply of water for agriculture. Farmers in Lepelle and Sedawa formed water committees and undertook walks to explore sources of water and consider different options (with support from an engineer). Participants in Sedawa are keen to use their community video to lobby stakeholders in the area to help them address their water challenges.
- Support for the construction of 20 shade cloth tunnels across three villages in Mametja, which have proven very effective for water conservation.
- Piloting the use of technology to aid with decision-making for water conservation (moisture sensors and household-based weather stations, funded through WRC) as well as the use of the Pendragon mobile app for garden monitoring.

Figure 28: Tunnel for vegetable production in Turkey village

Figure 28: Installation of rain gauges and explaining the process for reading and recording rainfall events

Figure 28: Sylvester Selala of MDF fixing and testing a "chameleon" moisture sensor in one of the tunnels

Small-scale farming support in the Middle Olifants is implemented through **Ukuvuna Harvests**, working in 12 villages across the Capricorn and Sekhukhune districts using a similar model to that described above. The cluster (learning group) membership increased to 223 this year (65% women), exceeding the target of 200, and the number of cluster leaders increased from 11 to 16. The project has also engaged 18 community groups (schools, churches, creches and clinics).

- An exciting development this year has been the emergence of a group of youth farmers. Ukuvuna, together with AWARD and Hoedspruit Hub, has supported these young farmers with training[15] and access to materials (see above). In Q4 a four-day learning exchange was held in Monsterlus with 15 youth from different villages, facilitated by one of the cluster leaders whose garden is a learning centre for the Sekhukhune district.
- Ongoing garden monitoring across all 223 gardens rated 75% of gardens "green" (well maintained and containing a diversity of crops), 17% "orange" and 8% "red". This is a substantial improvement from November 2017, when only 55% of gardens were rated "green". Agroecological practices

[15] Topics covered included entrepreneurship, water and soil management, herbs and medicinal plants, preservation and processing, animal integration and record-keeping.

taken up by farmers include mulching (50%), compost-making (32%), water harvesting (45%) and seed saving (19%).

- Overall, 48% of farmers generated extra income by selling vegetables, plants, herbs and livestock, although in one village (Dithabaneng) this was as high as 72%.
- In Q4, a small group of cluster leaders had an opportunity to participate in a cross-border learning visit to Zimbabwe to attend a Seed Fair.

Leadership conflicts at cluster level prompted Ukuvuna to establish two committees to act as the primary entry point for all project management, event planning and communication with Ukuvuna and AWARD in the Middle Olifants. These community-level structures provide more space for farmers to be involved in their own development processes.

2.5 KRA 5: Sharing of experiences and lessons within the ORB and other basins

Six **shared learning** events were held this year through a sub-grant to Aves Africa. These have been covered under the relevant KRAs. Events included:

- MERL and learning in RESILIM-O (April)
- Conservation-based entrepreneurship (May)
- Disaster management learning network (July)
- Water conservation and demand management (July)
- Wastewater treatment works (August)
- Co-management cross-learning visit with the Makuleke CPA (August)

In February AWARD, together with a range of partners, facilitated a national symposium on the Ecological Reserve at SANBI in Pretoria. The major issue centred on the lack of implementation and the drivers behind this. This provided an opportunity for reflection on the various practices associated with the Reserve from the perspectives of managers, scientists, practitioners and policymakers.

In May we shared lessons learnt from our systemic, social learning DICLAD approach at a workshop on Risk and Vulnerability Analysis methodology for Mpumalanga province (under a project which aims to develop a standard methodology for all water management areas in SA).

Figure 29: AWARD's session at the Adaptation Futures 2018 Conference on 21 June 2018

AWARD hosted a session at the Adaptation Futures 2018 Conference in June, an international conference series on global adaptation aimed at facilitating dialogues for solutions between key actors from diverse perspectives and regions. We presented our work on DICLAD, DRR and climate change adaptation aspects in RESILIM-O projects. Issues of relevance at a broader scale pertained to the need for more active small-scale farmers to support food security in the future under climate change, the importance of nurturing leadership and funding sources. We felt that our work appears to be ahead of much of the thinking relative to others in the climate change adaptation community regarding strategies or approaches to "measuring" adaptation.

Our pioneering hybrid and complexity-aware MERL (Monitoring, Evaluation, Reporting and Learning) approach continued to attract interest from natural resource management professionals and researchers working in other catchments (see KRA 6).

2.6 KRA 6: Monitoring, Evaluation, Reporting & Learning and Media and Communications

Key Area 6 objective: Strengthen organisational learning, integration and coherency through continuous reflective and collaborative processes.

Our "hybrid" **Monitoring, Evaluation, Reporting and Learning (MERL)** model continues to guide processes of data collection, analysis, learning and decision-making within the organisation. The Annual Report for the 2016/2017 financial year was submitted timeously on 1 November 2017, and Quarterly Reports for the current year were also all submitted on time. Our data collation and report production processes have become smoother and more inclusive than in previous years. The findings from the case study evaluations done in 2017 were presented to senior management at a strategic review session in November. Individual work planning sessions for each project with the Director included a re-evaluation of project theories of change. MERL is now well integrated into AWARD's adaptive planning and management. Highlights of the year include:

- Presentations at the South African Monitoring & Evaluation Association conference in Johannesburg and the Realist Evaluation conference in Brisbane, Australia[16] during October 2017.
- A MERL shared learning event in April, which provided an opportunity for all AWARD staff to reflect on what they have learnt through RESILIM-O so far and the role of MERL processes in stimulating and capturing this learning. Valuable insights and evidence of learning were obtained.
- Initiation of a Monitoring & Evaluation working group within SAPECS[17] (August 2018) which confirmed that others are very interested in learning from our experience within RESILIM-O.
- Submission of the first MERL paper to the journal Sustainability Science. This paper identifies important features and innovations of the MERL system.

Figure 30: Discussions at the SAPECS Monitoring & Evaluation working group in August

Case study evaluations this year are limited to the study being undertaken as part of the MERL Officer's Masters in Environmental Education. This focuses on how reporting processes can be strengthened to

[16] Funded from other sources
[17] South African Programme on Ecosystem Change and Society, a regional network of social-ecological systems researchers and practitioners and part of the global PECS network

enable learning in the DEA natural resource management programs in the Blyde catchment. The case study will be completed next year.

With the implementation of ten sub-grants by Q4 (six of which are new grants), much time was spent on supporting sub-grantees and reviewing MERL plans and milestone reports.

Finding suitable capacity for **media and communications** has been an ongoing challenge. In Q1 a short contract ensured the production of the following materials:

- Printed copies of the two brochures produced last year (RESILIM-O Phase 2 brochure and the Our Oli brochure)
- A standing brief for the USAID Deputy Mission Director's visit
- A Mailchimp newsletter with 12 short articles for www.award.org.za
- A standing brief on mining in the Upper Blyde, shared via social media, with an organic reach of 3047 and 16 direct shares
- Media releases on mining in the Upper Blyde
- An explainer video (animation)
- Support for the Water Caucus media release (for the report on the state of the DWS).

Media and communications is now being managed by Creating Sustainable Value (CSV) through a sub-grant which started in August. Communications outputs from all projects were identified, prioritised and budgeted for in September during a series of meetings with staff. The AWARD website was identified as the most urgent priority.

Around 500 brochures or flyers were distributed by project staff during the year, and 5,500 educational pamphlets were distributed through the water conservation and demand management school awareness program (see KRA 1). Stories from various projects were published in, among others, Beeld and the K2C Herald newspapers, the Grassland Society of South Africa newsletter and Sawubona, the SAA in-flight magazine.

As at September 2018, the Our Olifants Facebook page had 1,367 followers and the AWARD Facebook page had 460. The Our Olifants and AWARD Twitter accounts had 244 and 380 lifetime followers respectively. Several WhatsApp groups facilitated communication amongst groups of stakeholders in different projects, including the Agri-SI (6 groups), the CSO-SI and the Changing Practice course. Several sub-grant projects also published RESILIM-O stories and content on their own websites, blogs and Facebook pages.

2.7 KRA 7: Internal governance

Key Area 7 objective: To ensure good programmatic governance through developing and maintaining organisational capacity and effectiveness through tenable management systems and sub-contract management.

Staffing and offices

With the close of the internship program in May 2018, AWARD is significantly smaller, although three interns were engaged as staff members. AWARD now comprises 19 full-time staff, three research associates, three consultants and one volunteer. Two senior appointments were made: Cryton Zazu was appointed as the Natural Resource Management and Agro-ecological Project Coordinator in October 2017 (replacing Richard Hatfield) and Emma Oosthuizen as the Senior Grants & Contract Manager in July 2018 (replacing Mayford Manika).

Other issues to note include the following:

- The USAID gigas audit and statutory audit took place in August and September respectively. AWARD was awarded clean audits on both accounts. They were submitted to USAID prior to the end of September.

- AWARD held a Board meeting in February 2018 to approve the budget and work plan.
- A Reference Group meeting was held in October 2018 and discussed issues of relevance to governance, networking and future planning.
- Cost-share: AWARD has exceeded its cost-share requirements.
- In terms of fundraising a number of proposals have been submitted this year including two to the Green Climate Fund (administered by SANBI), the Flanders Government, the DEA (Land User Incentive funding) and the Water Research Commission, amongst others.

Knowledge management

AWARD has investigated many options to effectively and efficiently store the treasure trove of data collected through the RESILIM-O program. In February a custom in-house software solution, the AWARD Knowledge Management System (KMS), was launched. This platform is designed to be user-friendly, and greatly enhances the value of the data submitted. The KMS is currently operational and more than 300 documents and 600 photographs have been uploaded to the repository.

Contractual requirements

The contractual requirements governing our Cooperative Agreement with regard to the Environmental Monitoring and Management Plan (EMMP), as submitted with our 2016 Work Plan, continue to be upheld and monitored across all program activities. All consultancies and sub-contracts have equally been informed of this requirement. We have plans to ensure that our sub-grantees develop their own EMMPs, which we will monitor during the course of program implementation.

Grants and contracts management

As of September 2018, all ten sub-grants proposed under RESILIM-O for this year have been implemented (Table 1) Four of these are follow-on grants to organisations that received grants last year (Mahlathini Development Foundation, Ukuvuna Harvests, Rhodes University for the Institutions of Higher Learning project, and Environmental Monitoring Group) and the remaining six are new grants initiated during 2018. Six projects closed out during the year and close-out certificates for these projects have been fully executed. The total number of sub-grants awarded under RESILIM-O to date is fourteen.

Figure 31: Meeting between AWARD and CDS-ZC in White River in July to finalise the grant for the mangrove rehabilitation project in Mozambique

Table 1: Current sub-grant projects 2018 (NRM = Natural Resources Management, CCA = Climate Change Adaptation)

Sub-grantee	Sub-grant Title	Follow-on	New	Period of Performance	Comment
Mahlatini Development Foundation	Support for Small-Scale Climate Smart Agriculture (Lower Olifants)	**X**		Feb'18 -Oct'19	Milestones 2 of 7 complete
Ukuvuna Harvests	Support for Small-Scale Climate Smart Agriculture (Sekhukhune Middle Olifants)	**X**		Feb'18 -Jun'19	Milestones 2 of 6 complete
Rhodes University	Capacity Development through Institutions of Higher Learning	**X**		Mar'18 - Apr'19	Milestones 2 of 5 complete
EMG	Changing Practice: Building civil society capacity for NRM & CCA	**X**		Mar'18 - Sept'18	Project complete. Close-out in progress
Aves Africa	Support for shared learning for collective action		**X**	Apr'18 – Mar'19	6 of 17 events complete
Rhodes University	Networks for collaborative, systemic action in the Middle Olifants River Catchment		**X**	Jun'18 – Apr'19	Milestone 1 of 6 complete
CSV	Media and Communications		**X**	Aug'18 – Ju'19	Website & communications materials in progress
K2C	Blyde Restoration Custodianship project		**X**	Aug'18 – Jul19	Milestone 1 of 5 complete
CDS-ZC Mozambique	Mangroves rehabilitation in the Limpopo river estuary		**X**	Sep'18 – Sep'19	Milestone 1 of 7 payment in progress
EMROSS	Support for Strategic NRM & Environmental Regulation in Priority Areas of the ORC		**X**	Sep'18 – Sep'19	First month complete, (cost reimbursable)
Total