

PROTECTING THE SOURCE OF LESOTHO'S 'WHITE GOLD'



PARTNERS



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LESOTHO'S 'WHITE GOLD'

At the heart of the Mountain Kingdom of Lesotho lie the highlands. Sitting between 2000 and 3500 metres above sea level, they channel water into the Orange-Senqu River which winds its way from Lesotho through South Africa and Namibia, with tributaries stretching as far as Botswana. It is a key source of water for Southern Africa's most economically active region, supporting large-scale irrigation, industrial activities, hydropower, urban demand, and small-scale rural activities. South Africa's highly developed economy draws most of the water, with Gauteng deriving over 32% of its water directly from Lesotho.



{ Orange Senqu - River System }

A Valuable Intra-Basin Transfer

About 45% of South Africa's population and 60% of the national economy depend on water from the Lesotho Highlands Water Project (LHWP). In addition to supporting both Lesotho's and South Africa's GDP, the LHWP contributed to the creation of over 16,000 jobs in Lesotho. Lesotho's economic growth rose from 3% per annum in the pre-project period to 5.5% per annum during construction. It is no wonder that the Basotho affectionally refer to water as white gold.

(Engineering News, 2018. http://www.engineeringnews.co.za/article/lhwp-delays-threaten-water-security-for-45-of-south-africans-2017-07-21/rep_id:4136); Lesotho Highlands Development Authority, 2013. http://www.lhda.org.ls/Phase1/?page_id=19)

Lesotho, with only 5 % of the total basin area, contributes over 40 % of the annual runoff of the Orange-Senqu Basin

- World Bank, 2016. World Bank Water Security Assessment Report, 2016.

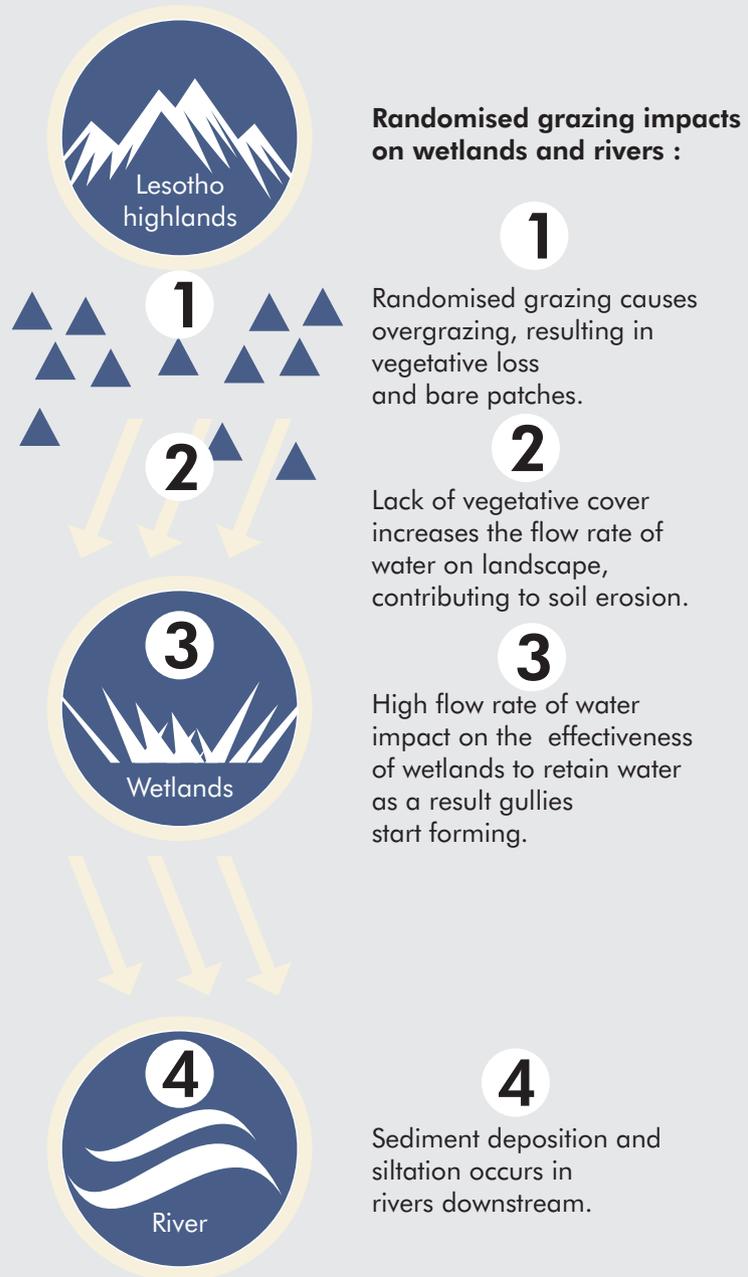
Up in the highlands, a large number of wetlands or 'sponges' slow the flow of flood waters, and receive, purify, and store rain-water, releasing it slowly throughout the year, ensuring water in the rivers during the dry season.

Nature's Kidneys

Wetlands act as nature's kidneys, filtering out pollution and sediments from water. A combination of physical, chemical, and biological processes removes nutrients and other chemicals as the water seeps through the wetland. Wetlands also enable the settling of particles carried in the water (sedimentation). These processes take place throughout the elements of a wetland: water, plants, algae, bacteria, litter and soil. Through these mechanisms they protect not only the flow of water in the river, but also the quality of water.

Despite the immense value of these wetlands, their condition has degraded severely over time. Uncontrolled grazing allows livestock to select what to eat and where, resulting in overgrazing on particular plants, and under-grazing in other, less palatable areas. Overgrazed areas lose the ability to absorb rainfall or to slow runoff, which results in water moving fast across the landscape, cutting rills and gullies into wetlands. This reduces the ability of the wetlands to retain water, which then results in some areas of the wetlands drying out. Soil erosion and siltation, encroachment of invasive alien plants, and cultivation in the wetlands exacerbate the degradation. Degraded wetlands allow eroded soil to wash into the river, causing siltation in dams and reducing the capacity for hydropower generation.

Climate Change, which is increasing the volatility of rainfall, exacerbates the challenges of degraded rangelands and wetlands, degradation which threatens both the livelihoods of highland communities and the production of water from the catchment.



THE PERFECT SITE FOR EXPERIMENTING

The Khubelu Sponges, in the north-eastern corner of Lesotho, are a prime example of degraded wetlands. High levels of erosion in the catchment is driving significant siltation which is threatening the long-term capacity of Lesotho to supply water to South Africa. It is for this reason that this was the area chosen by the Orange-Senqu River Commission (ORASECOM), with the Lesotho Department of Water Affairs and the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, for the pilot project for the Protection and Rehabilitation of Wetlands in the Highlands of Lesotho (the Khubelu Sponges Project), which started in 2013.

The rangelands in the catchment were also degraded, bare patches of soil competing with dense patches of invasive alien shrubs.

The Khubelu Sponges

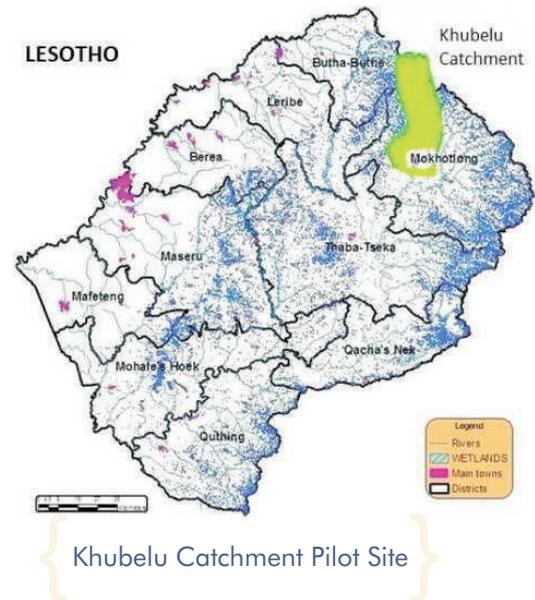
The Khubelu Sponges provide forage, good quality water and other resources to the local community. They are also upstream of the planned Polihali Dam which will augment Katse Dam in providing sustained water supply and hydro-electricity generation. Ongoing erosion in the catchment and the resulting siltation threaten the long-term capacity of Lesotho to supply water to South Africa.

It's estimated that every hour Lesotho is losing around 4,500 tonnes of fertile top soil (or up to 300 lorry loads) carried away in rivers flowing into South Africa. As a result, dongas at numerous hill sides are widened during each rainy season and farmland continues to disappear.

EU Delegation. 2016. Joint Press Release to address land erosion through Integrated Catchment Management in Lesotho

The Khubelu catchment wetlands [were] degrading, dongas were developing in the wetlands and the state of the wetlands was deteriorating. Khubelu represents the general situation of wetlands in the highlands. Alien invasions has also affected the wetlands and the rangelands surrounding it.

Motoho Maseatile, Director,
Lesotho Department of Water Affairs

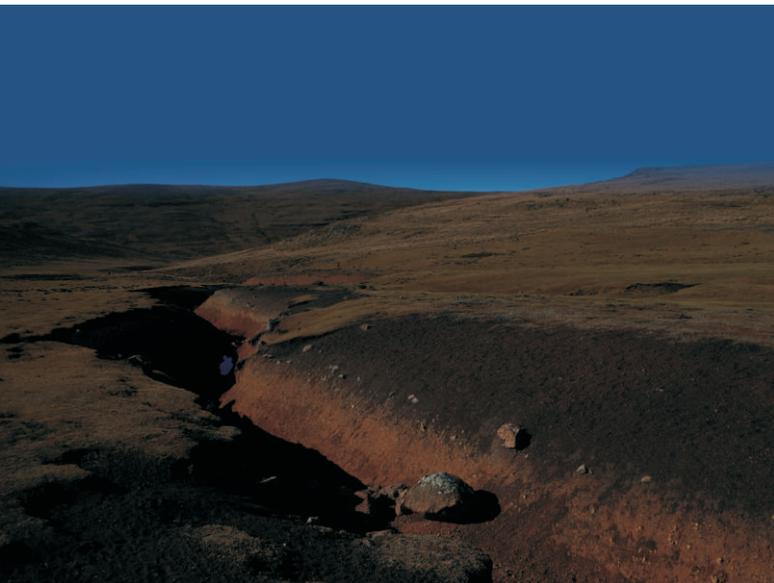


The Project Scope

The Khubelu Sponges Pilot Project was designed to demonstrate a methodological approach for the sustainable management of wetlands, benefiting both the people and the environment, in order to secure long-term availability and quality of water from the upper Orange-Senqu catchment area.

The objectives of the project were to:

- Rehabilitate selected degraded wetlands in the catchment;
- Monitor how the interventions affected the state of the wetlands;
- Disseminate lessons learned from the pilot project, for scaling up and replication in other catchments; and
- Improve the livelihoods of people living in the Khubelu catchment through sustainable and improved rangeland management;



Gullies in Khubelu Catchment



Khubelu Catchment Community

THE PROJECT PLAYERS

A wide range of stakeholders participated in the project.

Regional

- The Orange-Senqu River Commission (ORASECOM) initiated the project as part of their mandate to protect the water resources of the Orange-Senqu river basin.
- The German Federal Ministry for Economic Cooperation and Development (BMZ) and the UK Department for International Development (DFID) funding the project through the SADC Transboundary Water Management Programme.
- GIZ acted as the implementing agent for the project.

National

- The Department of Water Affairs of Lesotho, which has the mandate for the management of water resources, including wetlands, coordinated implementation of the project and collected data including on the condition of the wetlands.
- The Department of Range Resource Management of Lesotho has the mandate for the management of rangelands. It supported the farmers in developing grazing plans, introducing and overseeing alternative grazing practices and anchoring scientific data collection in the rangelands.
- The Department of Livestock Services of Lesotho, which has the mandate for the management and care of livestock and enhancing the quality of by-products that support the rural economy, provided livestock vaccines.

District

- The Mokhotlong District was represented by the District Council Secretariat and the District Administrator. They manage public local affairs and resources, and they were responsible for overseeing governance processes that assisted in sensitising, engaging and encouraging the involvement of the farming community in the project.
- Letšeng Diamonds, which operates a mine in the Mokhotlong District, contributed financially and materially to the project.

Traditional Authorities

- The Principal Chief of Batlokoa is the legal authority of the pilot site rangelands. He is responsible for the allocation of grazing rights to livestock owners. He was instrumental in sensitizing the wider community about the project and encouraging their support and involvement.

Local/ Community

- Farmers and herders from the Bohale-Ba-Nkoe and Mofolaneng Grazing Associations were responsible for putting into practice the high density rotational grazing and kraaling methodology.
- Members of the community were employed to conduct manual debushing or removal of alien invasive plants in the rangelands, and in the construction of the physical structures to address erosion and raise the water table at the wetland.
- The Community Councils of local government are responsible for establishment of legislation to manage environmental resources, land use planning and development support at the community level. Their role was to ensure balance between delivery of governance, technical support and community compliance to interventions.

Coordinating Communication and Engagement

Given the large number of stakeholders involved with and affected by the management and utilisation of the rangelands and wetlands, it was important to ensure good communication and stakeholder engagement throughout the project life cycle.

- Public gatherings were used to reach large audiences for the awareness campaigns
- Workshops and meetings were used for disseminating information and for involving stakeholders in decision making.
- Site visits facilitated the sharing of experiences and lessons learned on other similar interventions.
 - a. A core team of stakeholders at the district level has received targeted trainings in preparation for team to train others on a downstream basis, to achieve sustainability.
 - b. The sessions consisted principles in grass ecology, wetland conservation, leadership management, planning and conflict resolution.
- Review workshops enabled participants to discuss the project, to assess project successes and to strategize how to address any challenges that had arisen.

In summary there were 40 targeted engagements that involved 3'176 people of which 2346 were male and 830 female.

Table 1: Total number of engagements and participants

Engagement type	Number of engagements	Number of participants
Workshops	52	1026
Public gatherings	9	1752
Meetings	31	529
Site visits	7	73

A THREE-LEGGED POT

The project aimed to test three interlinked elements in protecting and rehabilitating rangelands and degraded wetlands, implemented over 32 months: high-density, rotational grazing, physical wetland rehabilitation, and removal of invasive species.

Introducing High-Density Rotational Grazing

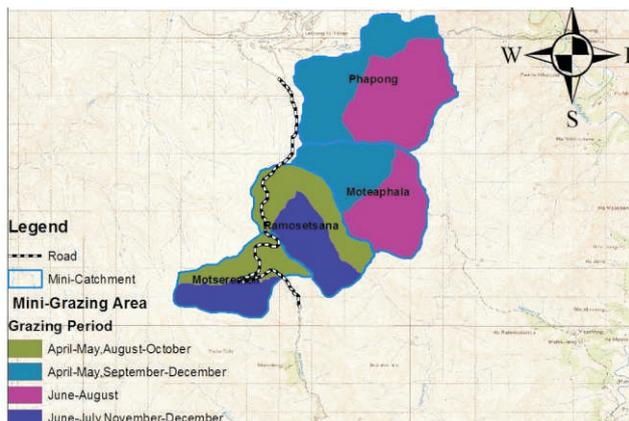
One of the primary causes of rangeland and wetland degradation is uncontrolled grazing. To reduce these impacts, high-density rotational grazing was introduced to and adopted by participating livestock owners and herders. Under this approach, groups of livestock are limited to a clearly designated grazing zone for a specified time. This prevents them from grazing selectively over a wide area, only choosing their preferred plants. Limiting their movement not only forces the livestock to graze on a wider range of plants, but it also means that they trample the area, breaking down dead plant matter and treading it into the soil with their own faeces and urine. The project also introduced mobile kraaling at night, where animals were enclosed in fenced off areas.

The goal of high density rotational grazing is to utilize the grazing livestock's hoof action to mix plant residues and manure with soil to improve the nutrient cycling process and vegetation cover.

Mr. Taole Tesele, GIZ- Lesotho.

Participatory Planning

The farmers of two Grazing Associations developed grazing plans with the Department of Range Resource Management, with capacity building support provided by contracted experts. The plans demarcated grazing zones and outlined how high-density rotational grazing was to be implemented. The livestock rotating periods also recognised the seasonal changes and took into account the harsh winter weather in the highlands.



Grazing Management Plan in the Khubelu Sponge Project for the Period April to December

Appropriate Equipment

Initially, steel farm gates were used as fencing to concentrate livestock into a selected degraded grazing area, but they are heavy and difficult to transport. They were replaced with solar-powered electric fences. Not only are these lighter and more easily portable, but they also enabled herders to charge their cell phones from the solar batteries.

The livestock herders were given protective clothing, tents and small ovens to enable them to survive the harsh weather of the highlands.

Building Capacity

While the farmers and herders were only too aware of the degradation of the grazing rangelands, they didn't know how to address the challenge jointly, as a community. The training equipped them not only with the knowledge and skills needed to successfully implement high-density rotational grazing, but also, importantly, with an understanding of the benefits of the approach and the links between the degraded rangelands and the condition of the wetlands. The development of this understanding was a critical element of ensuring sustainability beyond the end of the project and to ensure that both farmers and herders were willing to make the shift away from their traditional practices of randomised grazing.

Range Management officials were trained on how to monitor implementation of the new grazing practices and how to conduct environmental monitoring on the rangelands. Training was conducted by experts through workshops, meetings, field demonstrations and study tours, both prior to and during project implementation.



Herders Practicing High-density Rotational Grazing

Data Collection, Monitoring and Evaluation

Since this was a pilot project, effective monitoring and evaluation was needed to assess the effectiveness of the high-density rotational grazing and kraaling practices. Technical officers of the Department of Range Resources Management, conducted a baseline assessment of the rangeland condition, supported by contracted technical experts to ensure skills transfer and capacity building on data collection and results' analysis. The rangeland conditions were benchmarked against a technical assessment, which focused on soil moisture conditions, vegetative cover and biodiversity in the pilot areas.

During the implementation of the project, data was collected and assessed at regular intervals by the Department of Range Resource Management.

The farmers who participated in high-density rotational grazing and kraaling throughout the grazing seasons remarked on the rapid and significant impact on their livestock. The benefits of the approach were even noticed by farmers outside the pilot, who were still practicing transhumance to remote rangelands.

“The fur of the animals is good, and it looks better [than when the animals were randomly grazing] because it is not being torn by the shrubs and soiled by the mud.”

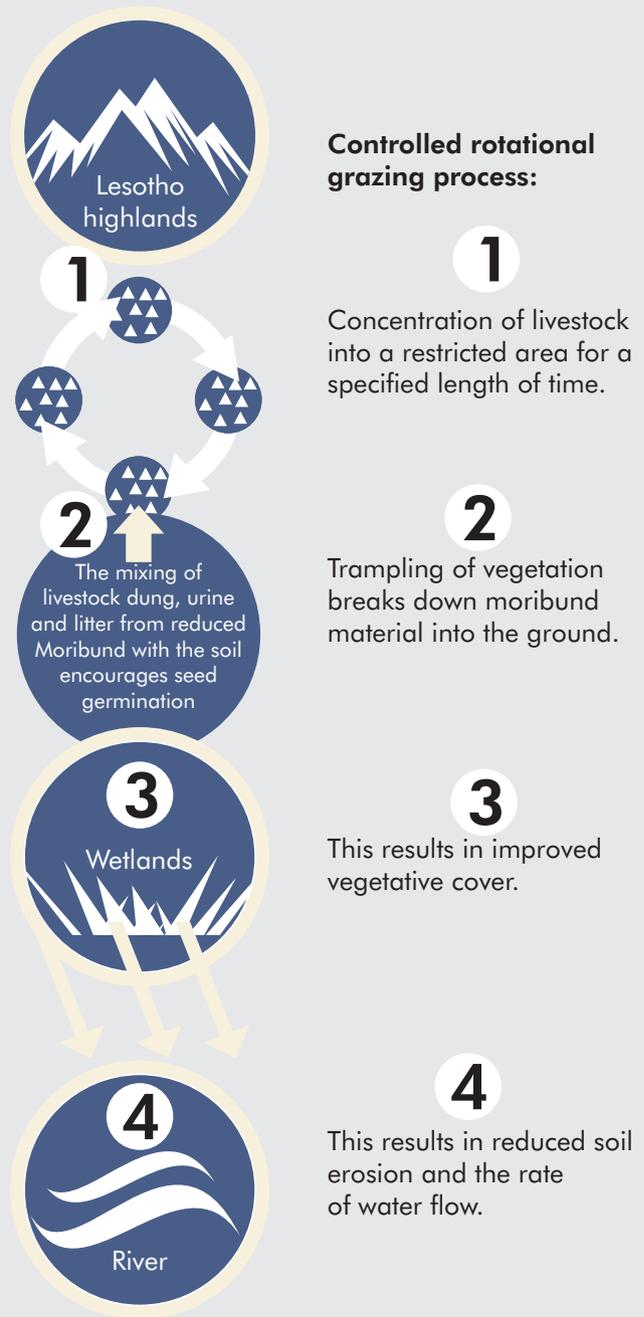
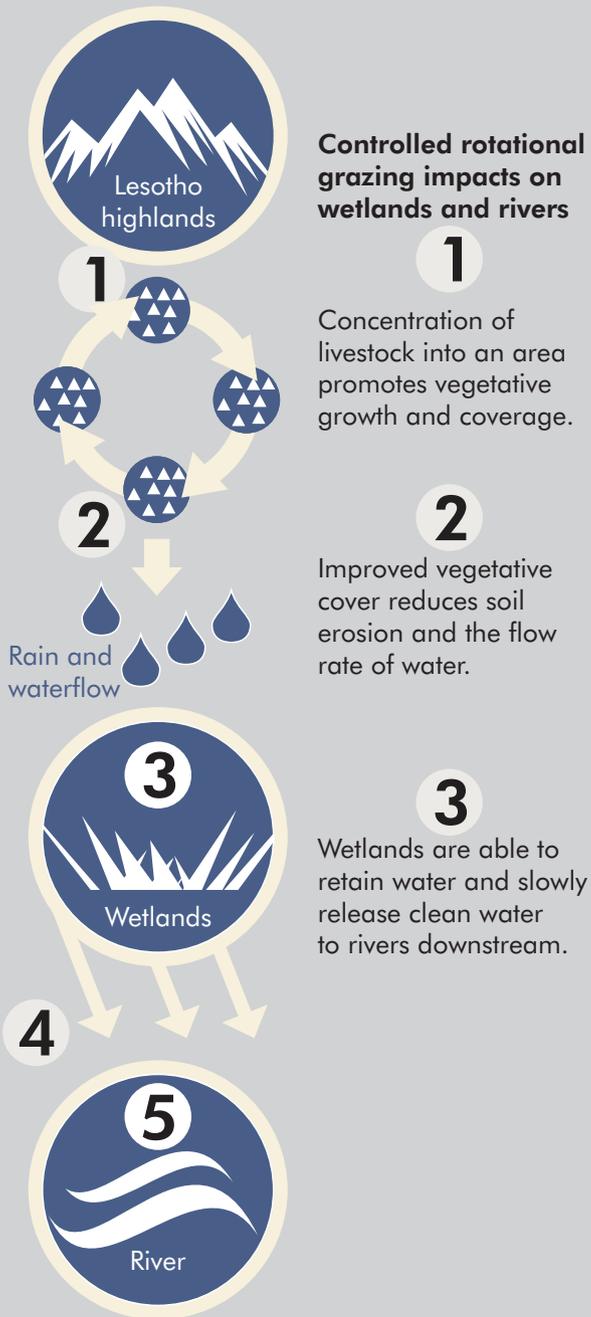
Ms Masetleli Ramollo (farmer)

“There is increased gestation and productivity in livestock.”

Mr Telang Leleka (farmer)

Results of the High-Density Rotational Grazing

- Incorporation of moribund litter, dung and urine into the top-soil which increases nourishment, reduces run-off, reduces the raindrop-effect and encourages water percolation into the sub-soil;
- Improved seed germination and root and plant conditions;
- Recovery of palatable grass (due to sufficient time between rotations);
- Improved condition of livestock through reduced movement to remote pastures - leading to improved livelihoods and reduction of poverty;
- Improvement in grass quantities and quality, resulting in improved livestock carrying capacity of up to six times the previous rate;
- Improved retention of soil moisture leading to improvement in wetland conditions;
- Improved fodder and water conditions leading to improved livestock conditions, quality and quantities.



Constructing Physical Rehabilitation Structures in the Wetlands

The Phaphong and Ramosetsana wetlands were chosen as pilot areas for the construction of physical rehabilitation measures, at least in part because they are close to the main road for the delivery of materials and for access for monitoring purposes.

Four types of physical structures were constructed, each with a specific aim:

- Heavy rock gabions were used for the dissipation of channel flows and to encourage the deposition of silty materials;
- Very wide low-profile rock gabions were constructed to redistribute flows across the slopes;
- Cyclopean weirs were introduced to encourage water table recharge and re-wetting of the wetland area through capillarity; and
- Rock packs were constructed to prevent head cuts.

Construction and Investment

Construction began in 2015. Local contractors constructed a total of 35 structures across the two wetlands at a cost of 2,600,000 Maloti (US\$220 000). Construction activities for the Phaphong wetland were supported by Letšeng Diamonds which provided all of the rock material as well as technical support. They also contributed over 500,000 Maloti (US\$40 000) towards construction costs and therefore altogether covered 50% of the projects construction costs.

Their involvement also established a locally-based funding mechanism that could support the practices beyond the pilot and reduce the reliance on International Cooperating Partners for future funding.

Monitoring Results

The Department of Water Affairs, supported by the Department of Soil and Water Conservation, led the data collection and monitoring on the wetlands. Technical experts were appointed to guide implementation and to build monitoring capacity. A Lower Limpopo baseline assessment of the conditions of the wetlands was done at the start of the project, followed by three years of data collection through hydrometric and meteorological equipment. Careful analysis revealed a gradual improvement of the wetland conditions, arising from the rehabilitation interventions.



Physical Structures for the Rehabilitation of Wetlands

Visible Results from the Physical Measures

- **Moisture content:** the cyclopean weirs recharged the water table in the dry wetlands. Some wetlands which were initially thought to be non-perennial retained water even during the dry season.
- **Erosion and deposition:** the gabions resulted in rapid, visible changes by reducing erosion and encouraging deposition in the gullies. The gabions held back the sediment resulting from erosion which would otherwise have entered the river system. The sediments accumulated and began to fill up the gullies and furrows in the wetlands.

The achievements were corroborated by DWA officials, who noted the visible changes and recognised the value of the physical measures:

“The structures are functioning well. For instance, the rock gabions structures, some of them are full almost to capacity with trapped soil and sediments”
Makomoreng Fanana,
Department of Water Affairs

“The structures were able to reduce the run off rate. As result the dongas that were developing in the area were closing”
Motoho Maseatile, Director,
Lesotho Department of Water Affairs

“The structures have restored the water table and rehabilitated the moisture retention capacity for the wetlands. One is now able to demarcate the wetland site. Furthermore, the dongas in the wetlands were filling with sediments”
Motoho Maseatile, Director,
Lesotho Department of Water Affairs



{ Cyclopean Weirs after Raining }

Improving Climate Resilience

The residents of the Lesotho highlands are subject to an already harsh climate. Climate change is increasing the unpredictability of the weather and driving erratic and heavy rains which may cause floods and long dry spells and deepening droughts. The rehabilitation of the wetlands, with increased moisture retention over a longer period and improved groundwater recharge spells improved resilience of the upland communities who depend on these resources for water. At the same time, the physical structures and the increased vegetation in the wetlands provide improved defence against flooding as water flow is significantly reduced. The interventions enable communities to survive despite the changing conditions.

Removing Alien Invasive Species

At the start of the project, the Khubelu rangelands were overgrown with woody shrubs and alien invasive species which outcompete the natural vegetation, including the palatable grasses needed by livestock. This limited the available grazing land, causing overgrazing in other areas. The over-grazing resulted in bare patches of soil, vulnerable to the erosive effects of wind and rain.

To turn this around, manual debushing was implemented, followed by terracing which aimed at reducing runoff rates and encouraging the deposition of topsoil and sediment. Community members were employed to do the debushing, while the terracing was done by the Department of Range Resource Management. The employment of community members complemented the rural public works programme commonly known as Fato-Fato, aimed at creating work opportunities in rural areas, and driven by the Government of Lesotho as part of their integrated watershed management interventions. The Government of Lesotho has published guidelines on cash-for-work programmes, which were used in this project.



{ Debushing and Terracing }

LESSONS FROM THE FIELD



Building a Multi-Stakeholder Partnership

As is common in the case of water and natural resources management, there were a number of important players in this project. Getting them to work together effectively was a key success factor, as was ensuring clear mandates and responsibilities. The project needed quick and sustainable alignment of the various role players and on-going stakeholder engagement throughout the project.

A district level task team was established which included key stakeholders. A technical task team made up of government staff backstopped the district activities and provided a link to the national, inter-departmental steering committee which provided management oversight and decision-making. This proved highly effective in terms of establishing clear lines of communication and soliciting a concerted joint effort. Concerted efforts were made to facilitate interactive workshops, field trips and continuous communication between key national departments, to ensure their commitment, ownership and prioritisation of the project.



Adopting and Adapting to Change

At the local level, open engagements with the Principal Chief from the start of the project were instrumental in ensuring his, and community, awareness of the project, giving legitimacy to the project, and facilitating community participation in achieving project goals and objectives. The Principal Chief also provided useful insight into community concerns.



Engagement with Principal Chief of Tlokoeng

The establishment of these platforms for ongoing engagement assisted in breaking down traditional silos and improving the lines of communication. Individual engagements with key stakeholders encouraged deeper commitment and continuous participation. All of this, however, required substantial ongoing effort on the part of the Department of Water Affairs which was responsible for ensuring coordination.

Despite the effective coordination on the ground, the centralisation of decision-making in Maseru sometimes impacted on project activities and slowed progress. Decentralisation of decision-making to a more local level would have enabled faster and more streamlined execution of project activities.

Adopting and adapting to change is a challenge for most people, and even more so when ways of doing things have been entrenched in community practice over generations.

For the pilot project, the farmers and herders of the Khubelu catchment needed to adopt high density rotational grazing and kraaling and abandon their more traditional methods of randomised grazing over a relatively short period of time.

The livestock benefits of the project, in terms of improved gestation and productivity, better quality wool and a reduction in animal disease were quickly recognised and celebrated by the farmers. In addition, the capacity building and training sessions were instrumental in breaking the bonds with randomised grazing and creating awareness about the potential benefits of high density rotational grazing. The sessions were also crucial in organising the farmers into a collective awareness of the need for rangeland stewardship and developing a sense of ownership of the project.

The herders, on the other hand, derive no immediate benefits from adopting the introduced practices. While they were equipped with protective clothing, tents and small ovens, the new approach required them to overnight on the range lands, in harsh conditions, rather than in their homesteads. To ensure that the change is sustainable, herders will need to be incentivised in some way to maintain the new approach.

Demonstrating the benefits of new practices is a critical step in ensuring their adoption. Equally, it is important to recognise that changing habits is not easy, and that ongoing or longer-term engagements may be necessary to support and cement the process of change. Placing a well-capacitated point person on site throughout the project may well have improved communication with the farmers and herders and improved the implementation of the new methods.



Tackling Beliefs and Cultural Norms

Pilot projects operate within a given socio-economic and cultural environment, and as a result, must be sensitive to and cognisant of the cultural beliefs and norms with the target communities. Some of the farmers in the Khubelu catchment made use of traditional medicine to strengthen and protect their animals. This made them wary of mixing their livestock with those of other farmers who were not protecting their livestock in similar ways. The high density rotational grazing and kraaling method, however, requires the livestock of different farmers to graze and be kraaled together. The Department of Livestock vaccinated all of the livestock in the project to resolve this concern.

Seeking clarity on cultural norms and engaging extensively with local communities at the outset of a project, is key to managing risk, exploring modalities to neutralise cultural conflicts, establishing common ground and maintaining relationships with the local population.



Engaging and Capacitating

The ongoing engagement and communication with project stakeholders ensured alignment in understanding the project, and of each party's roles and responsibilities. The engagements also assisted in garnering support, cooperation, buy-in and ownership. To enable local stakeholders to participate in meetings and fieldtrips, their transport costs were covered. Holding workshops and capacity building exercises close to local communities can assist enormously in ensuring active participation and engagement, particularly by local women.

The project's extensive capacity building ensured that stakeholders gained a practical understanding and the necessary skills to effectively execute project interventions. External experts were brought in for on the job capacity building and training where needed, which contributed significantly to the capacity building element of the project. This should be a key consideration, from a resourcing and budget perspective, in intervention of this nature.



To Pay, or Not to Pay?

Local community members were employed to manually debush certain areas in the rangelands. Compensation was based on the approach of the cash for work Fato-Fato programme. The rangelands were quickly debushed and immediately available for livestock grazing. A more sustainable approach, however, might have included education of communities on the benefits of debushing, as a means of incentivising ongoing, unpaid work in this regard.



Cooperating with the Private Sector

A key aspect of the project was the involvement of the private sector through Letšeng Diamonds. The intention was to encourage local funding that could assist in the long-term sustainability of the project. However, partnerships between the private and public sectors are uncommon in Lesotho and the process had to be carefully navigated.

Transparency and open communication played an integral part in getting stakeholders to realise the value of bringing Letšeng Diamonds into the project and to dispel the fear that the mining company intended to take over the project.

Meetings, workshops and training sessions became important platforms for entrenching this understanding. One-on-one sessions with stakeholders outside of the project's formal communication and engagement platforms also served to sensitise stakeholders on how to work cooperatively with the private sector to achieve not only the project objectives but also long term integrated water resource management.

The case of Letšeng Diamonds indicates the potential for cooperation with and funding from the private sector. Environmental off-setting approaches for ecological damage as well as stewardship or corporate social responsibility approaches can bring in private entities as important partners.



Sustainable Planning and Implementation of Physical Structures

The visible improvements in the wetland conditions indicate the clear value in investing and introducing physical structures such as weirs and gabions. However, the structures used in the Khubelu catchment were relatively costly and require ongoing maintenance. Erosion started occurring at the edges of the weirs soon after construction. In addition, the delivery of rock materials to the wetlands by truck resulted in deep wheel ruts causing negative ecological impacts in the very resource the project aimed to protect.

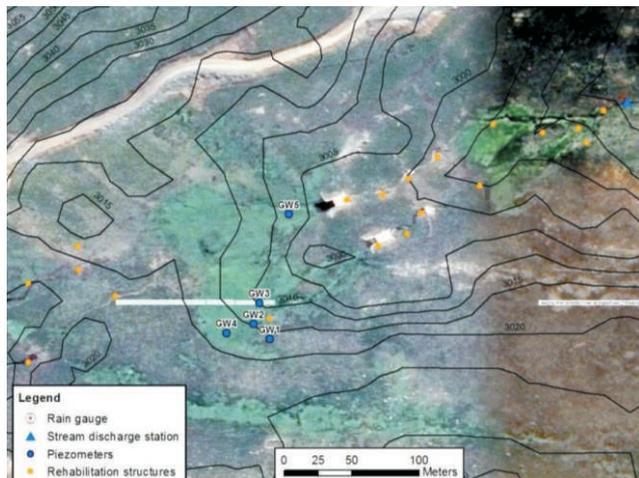
Alternative, less costly options, with lower environmental impacts, are available. Terracing and rock-packing may be equally effective and require minimal maintenance, and community labour may reduce the impacts of bringing in external contractors. The environmental impacts of the physical structures selected should be assessed carefully and mitigation measures developed to manage unintended consequences.



Monitoring and Evaluation

The systematic monitoring of the results of interventions enabled the team to assess progress and understand the benefits, challenges and successes of various activities. Monitoring and evaluation in the wetlands resulted in verifiable data on the impact of the physical measures and enabled the team to track progress.

When monitoring the wetlands, however, it became apparent that certain additional, external, factors needed to be taken into consideration to obtain the full series of data needed to measure whether the structures were indeed rehabilitating the wetlands. These included seasonal changes, annual changes in climate and weather, and levels of rainfall. This resulted in the extension of the data collection so that a full picture of the impact of the structures on the rehabilitation of the wetlands could be developed.



Satellite Map Indicating Monitoring Stations and Physical Structures on the Wetlands

To truly assess the impact of the project, however, monitoring and evaluation needs to continue over longer time-frames than were possible in the pilot project, to generate reliable and verifiable series of data and information over time.

Bi-weekly monitoring of the grazing practices allowed for easy identification of the benefits from the new practices. For interventions where deep seated cultural practices exist within beneficiary communities, there is a need to carefully monitor activities linked to changes in historical practices, to ensure that they do not revert to previous methods. Constant on-the-ground monitoring and oversight at the pilot site is important.



Addressing Gender

The pilot project did not capitalise sufficiently on possible gender mainstreaming opportunities which could be addressed through ensuring equitable participation in decision-making structures, allocation of paid labour opportunities, and through gender disaggregated indicators for the monitoring and evaluation of the benefits of the project. As a result, it is difficult to assess the gender dimensions relating to both participation in and benefits derived from the project.



Awareness Raising

An important part of the project was building the understanding of local communities around the relationship between grazing patterns and the state of the wetlands.

In collaboration with the Participatory Initiative for Social Accountability (PISA) project, key messages on “responsible herding” for sustainable land management were shared with community members. Public gatherings, cartoons and flyers were used, and PISA engaged the NGO Conservation Music to write and perform three songs together with local artists containing awareness messages on responsible herding. Although the PISA collaboration did not specifically focus on the Khubelu Sponges Project, its emphasis on integrated catchment management aligns with the holistic approach to environmental protection of the Khubelu Project.



Building on Success

Addressing land degradation and erosion through Integrated Catchment Management:

The European Union is supporting the Lesotho Department of Water Affairs in the development of a Lesotho Integrated Catchment Management programme. The programme is aimed at protecting the catchments of Lesotho through a long-term, integrated catchment management approach, which brings relevant stakeholders together through regional land and water management plans in order to achieve whole catchment improvements. The lessons learned through the Khubelu pilot project have strong resonance with this programme, which offers a route for upscaling the approach.

Based on the positive experiences in the Khubelu Sponges Project, the Department of Range Resources has received additional funding from FAO to roll out the high-density and rotational grazing approach country wide



Resilience through Wool and Mohair

The Department of Range Resources in partnership with the Department of Livestock Services and supported by the International Fund for Agricultural Development (IF AD) has started implementing a Wool and Mohair Promotion Project. The focus of the project is on the rangelands that cover more than two thirds of the country's surface. The project is using the high density rotational grazing approach as a way of achieving climate-smart rangeland management and is building on the lessons from the Khubelu Sponges Project.



Food Security through Rangeland Management

The Food and Agricultural Organization (FAO) is supporting the government of Lesotho in driving climate change adaptation through the promotion of sustainable farming systems with an emphasis on sustainable land management. The FAO is currently piloting high-density rotational grazing in one catchment. The experience of high density rotational grazing in the Khubelu pilot supports the approach being taken by the FAO.

CONCLUSION

This pilot project set out to test three different interventions in the protection and restoration of the wetlands of the Lesotho Highlands: the construction of physical structures to rehabilitate degraded wetlands, manual debushing and clearing of invasive alien plants, and high-density rotational grazing and kraaling.

All three elements showed clear achievements in the restoration of wetlands within the three years of project implementation, and all three elements show the potential for upscaling not only within Lesotho, but also in other similar areas.

The evidence points strongly towards the need for an integrated approach – bringing the three legs of the project together results in a greater impact than implementing any one of them in isolation.

The project clearly demonstrated the value of joint efforts and collaboration among the various players, especially within the Government system. There are discussions to adopt the approach in other national projects.

The lessons learned from this pilot project will enable decision-makers to improve on the areas of weakness when rolling the approach out in other areas, ensuring greater sustainability, reduced costs, stronger empowerment of women, and the long-term restoration and protection of these critical wetland systems.





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