**Report of the Portfolio Committee on Water and Sanitation on a Follow-Up Visit to the Limpopo Province to Assess Progress on the Giyani Bulk Water Project, 18 – 19 April 2023, Dated 6 June 2023**

The Portfolio Committee on Water and Sanitation (the committee) undertook a follow-up visit to the Limpopo Province to assess progress on the Giyani bulk water project (the Department of Water and Sanitation (the department) as the responsible institution) by which 55 villages in and around the Nandoni and Nsame Dam would be provided with potable water (the Mopani District charged with reticulation), and reports as follows:

1. **INTRODUCTION**

The Constitution of the Republic of South Africa, 1996, states that Parliament has the power to conduct oversight of all organs of state, including those at the provincial and local government level. This report provides an account of the follow-up oversight visit, from 18 – 19 April 2023, to the one undertaken from 28 to 29 October 2022. Although the October 2022 oversight visit focused substantially on engaging the complaints highlighted in a petition submitted to Parliament by the Nandoni Complaints Resolution Commission, the focus of the April 2023 oversight was to:

* Assess departmental commitment to constructing, refurbishing or augmenting bulk water and sanitation infrastructure to address water services challenges in Giyani. The focus was on whether the Department had progressed in its objectives of transferring water from Nandoni Dam to augment the Nsami and the Middle Letaba water treatment works systems. In October 2022, the project stood at 60.8 per cent.
* As an essential component of the department's work to provide bulk water infrastructure, the Mopani District Municipality was charged to undertake work as an implementing agent for reticulation and Giyani Water Treatment Works refurbishment. The department availed a Water Services Infrastructure Grant budget to implement this project. In October 2022, Mopani District Municipality advertised for contractors to start constructing Phase 1 reticulation to 24 villages and refurbishing the existing 30Ml/d Giyani Water Treatment Works.
* **Delegation:**
* **Members of Parliament:**

**African National Congress:** Mr RM Mashego, Ms GK Tseke, Mr PMA Tseki, Ms MM Matuba and Ms M Pietersen.

**Democratic Alliance**: Mr L Basson and Mr NG Myburgh.

**Economic Freedom Fighters**: Ms MR Mohlala.

* **Parliamentary Support Staff:**

Ms N Bavuma (Committee Secretary), Mr T Manungufala (Researcher), Ms S Dawood (Content Advisor), Mr T Sibisi (Committee Assistant) and Mr M Molepo.

1. **OPENING REMARKS BY THE CHAIRPERSON OF THE COMMITTEE**

Although the oversight visit was preceded by site visits before the formal briefings, the Chairperson, reiterated that the objectives of the visit were to assess and ascertain how the Department of Water and Sanitation fulfilled its obligations for the provision of bulk water and sanitation infrastructure to the Giyani and surrounding villages. Furthermore, understanding the extent to which the department met the proposed timeframes with necessary funding was essential to the committee. Another critical component of water service provision was the capability and capacity of the Mopani District Municipality to undertake the refurbishment of the Giyani Water Treatment Works and the provision of a sustainable reticulation network to provide potable water to 55 affected villages.

1. **PRESENTATION BY THE DEPARTMENT OF WATER AND SANITATION (NATIONAL AND REGIONAL HEADS)**

The intention of the Luvuvhu River Government Water Schemes, under the auspices of the then Department of Water Affairs, with the construction of the Nandoni Dam, entailed constructing two new water treatment plants, pumping stations, bulk water distribution pipelines, service reservoirs and an abstraction weir, to supply water for domestic use (specifically to communities living in and around the dam with no access to potable water), irrigation, forestry and ecosystem sustainability.

Nandoni Dam was constructed from October 1998 to August 2005. The dam receives water from the Luvuvhu River, which originates from Makhado. The dam has a maximum height of 47 metres above the riverbed. The storage of water in the dam commenced in March 2004. The Giyani Bulk Water Project was initiated in 2014 to address severe water challenges in the Greater Giyani Local Municipality by transferring water from Nandoni Dam to augment Nsami and Middle Letaba water systems. This scheme is meant to supply three (3) water service authorities: Vhembe, Mopani and Capricorn.

A ministerial directive was issued to the Lepelle Northern Water Board for intervention in the Mopani District to address water challenges. The intervention included – refurbishment of existing water and sanitation infrastructure, including pump stations, repairs of leaking pipes and reservoirs, borehole development and installation of a package plant for immediate supply to the Nkhensani Hospital, construction of a 1.5 Ml/d Wastewater Treatment Works to augment the existing Giyani Water Treatment Works, the replacement of inefficient bulk pipelines that supply water to 55 villages around Giyani (about 325 km of the pipeline) and the revitalisation of 154 boreholes to augment water supply in 55 villages around Giyani. The project was initiated to address water services challenges in Giyani due to infrastructure failure, further perpetuated by drought conditions that affected the yield of both the Nsami and Middle Letaba Dams.

The intention to supply water for domestic use to communities living in and around the dam, with the requisite bulk infrastructure and reticulation networks, between 2014 and to date, has yet to materialise due to many challenges on the Giyani Bulk Water Project. These challenges ranged from allegations of corruption on the project, failure of contractual obligations, and transgressions of the Public Finance Management Act by the implementing agent, Lepelle Northern Water Board. The Special Investigating Unit is currently compiling its investigative report.

In focusing on the move to ensure the functionality of the Giyani Bulk Water Project, the Department of Water and Sanitation optimised four (4) work packages, visited by the committee, comprising the following:

* **Work Package 1: Construction of the Nandoni-Nsami bulk pipeline**

The 40.5 kilometres bulk pipeline to transfer raw water from Nandoni Dam to Nsami Dam in Giyani has been completed, and water is flowing through the canal to the dam. The water flowing from Nandoni Dam through the canal flows into the balancing dam. The water from the Nandoni Dam will be used to augment water from Middle Letaba Dam and be treated at the Giyani Water Treatment Plan, which is currently refurbished.

* **Work Package 2: Refurbishment and upgrading of the Nsami Water Treatment Works**

The refurbishment to optimise the 30 ML/d water treatment plan is underway to enable the plant to meet the water demands of the entire population of Giyani and its surroundings. The expected completion of the refurbishment is December 2023. Upon completion, work to increase the plant’s capacity by 10ml/d to 40ml/d is set to commence in April 2024 for a duration of 24 months.

* **Work Package 3: Construction of the secondary bulk main pipeline**

This consists of constructing approximately 325 kilometres of bulk pipeline to distribute potable water from the commanding reservoir at Nsami Water Treatment Work to reservoirs supplying Giyani and the 55 villages. Construction is underway, is in a phased approach, and is linked to the reticulation of 55 villages.

* **Work Package 4: Water reticulation of fifty-five (55) villages within Mopani District Municipality**

In August 2022, the Giyani reticulation programme was initiated to complete the water-to-tap project in Giyani. In August 2022, the Giyani reticulation programme was undertaken to complete the water services value chain (source to tap) in Giyani. The reticulation programme will extend the supply from bulk pipelines (currently under implementation through the Giyani Water Service project) to the household levels.

The programme to reticulate 24 villages as part of Phase 1 has started with 37 contractors expected to be appointed through the Water Services Infrastructure Grant under Schedule 6B. Twelve (12) contractors have been appointed for 12 villages, and seven are under construction. Five are finalised as part of the contractual obligations with the Water Services Authority, the Mopani District Municipality. The progress per village is as follows – Bambeni at 64%, Homu 14A at 38%, Ngove at 30%, Bode at 5%, Maswanganyi at 5%, Makoxa at 17%, and Sikhunyani at 3%. These reticulation projects are expected to be completed within 12 months from the start of projects.

The programme for reticulation of 31 villages as part of Phase 2 is recommended for approval and will be implemented in the 2024/25 financial year with 43 contracts.

Even with the challenges emanating from the Giyani Bulk Water Project, inherited by the new administration under Minister Mchunu, the Department, by 2021 to date, has begun undertaking its mandate of constructing or refurbishing bulk water and sanitation to ensure access to water for the 55 villages.

1. **RESPONSES OF THE MOPANI DISTRICT MUNICIPALITY FOR WATER SERVICES PROVISION[[1]](#footnote-1)**

The Mopani District Municipality consists of five (5) local municipalities: Ba-Phalaborwa, Greater Giyani, Greater Letaba, Greater Tzaneen and Maruleng. The seat of Mopani is Giyani, and the district is part of the Great Limpopo Transfrontier Park.

Mopani district is a Water Services Authority (WSA), and all its Local Municipalities have Water Service Provision (WSP) Agreements in place. The surface water in urban areas and rural areas is served through boreholes. MDM lies within and benefits from the following water catchment areas: Groot Letaba for GLM & GTM, Olifant for MLM & BPM and Klein Letaba for Giyani.

The bulk water supply in Mopani is characterised by numerous surface water schemes in various stages of full development to all consumer points. Major upgrading and refurbishment are required at most localities. The Middle Letaba Sub Scheme and Modjadji areas need extensions to the existing bulk supply systems.

MDM operates 21 water schemes, 62 pump stations, 19 water treatment works, over 1400km of pipelines, over 500 reservoirs and thousands of boreholes. In general, Mopani District is well provided with bulk water supply infrastructure. However, the water supply is below the RDP level (25 litres per person per day), so more pipeline reticulation within villages is needed. MDM gets bulk water from the Lepelle Northern Water Board, treat the water and channel that to reservoirs in villages/ settlements in the five local municipalities. Local municipalities are responsible for reticulation in villages.

Most people in the district use pit latrines, followed by those without sanitation services. Greater Letaba has the highest usage of Pit Latrines at 51,5%. In comparison, flush toilets are more prevalent in Ba-Phalaborwa at 39,8%, which correlates with the availability of piped water within the houses. The situation is worse in Greater Giyani, with 54% of the households needing access to sanitation. The district municipality has the constitutional responsibility to provide access to sanitation services.

The status of water and sanitation services in the Mopani District Municipality, highlighted above, was sourced from its 2022/23 Integrated Development Plan, as no immediate report was provided during the oversight visit. However, since the IDP is an official document, it provides a broad overview of the current water and sanitation provision status in the entire Mopani District Municipality.

Subsequently, the Mopani District Municipality forwarded a report on 2 May 2023 to the Portfolio Committee on Water and Sanitation. It provided specifics on its plans and timeframes to complete its reticulation network systems in the local municipalities. Mopani District Municipality embarked on a project to upgrade the bulk water infrastructure required to treat surface water at the Giyani Water Treatment Works and to convey adequate and sustainable potable water to Giyani town and the surrounding 55 villages. Once completed, the bulk water infrastructure upgrading implemented by the Department of Water and Sanitation through Lepelle Northern Water will supply water to the 55 villages, including Giyani Town. Site assessments, scoping reports, technical reports and business plans for the reticulation are completed. Thirty-six (36) business plans and twenty-four (24) technical reports for reticulating 24 villages for Phase 1 were assessed and approved by the Department of Water and Sanitation on 29 August 2022. Tender documentation for the prioritised scope of work for 24 villages, with 37 contracts for the reticulation project and one contract for the Giyani Water Treatment Works Refurbishment, was advertised on 10 October 2022. Twenty-seven (27) out of thirty-eight (38) contracts, including the Giyani Water Treatment Works Project, have been appointed.

1. **OVERSIGHT VISIT – SITE REPORTS**

**Briefing at the Nandoni Dam pump station**

The committee inspected the pump station to view the starting point of the Nandoni- Nsami bulk pipeline. The Department of Water and Sanitation reported that the pumping simulation to test the bulk pipeline was successful, and the final connection of the pipeline is currently underway.

**Briefing at the Mavhambe Village**

The committee inspected the Command Dam that receives potable water from Nandoni Water Treatment Works. The Command dam is supported by a pump station that assists with pumping water against gravity to distribute the villages under Vhembe District Municipality.

**Observation:** The Committee was concerned with the absence of a representative from Vhembe District Municipality to respond to issues raised concerning water supply to Mavhambe villages.

**Briefing at Scour Valve (26 km point of the Nandoni-Nsami Pipeline)**

The Scour valve is located at low point sections of the pipeline, which is at 26km. It allows periodic flushing of the lines to remove sediment and enable the line to be drained for maintenance and repair work. The Department reported that Mushwana and 13 other villages would be connected at this point to receive their bulk water supply when Vhembe District Municipality fully implements reticulation. The Department noted that there currently awaiting the submission of a technical report on the reticulation system for these villages from Vhembe District Municipality. The department must approve the technical report before implementation. To this end, Vhembe indicated that the report is being drafted and almost complete.

The MMC for Technical Services (Cllr Chauke M.G) from Vhembe District joined the oversight at this point. The MMC reported that most protests in Vhembe relate to water and sanitation issues. This is partly due to the need for bulk water supply in villages with reticulation systems. Communities do not understand the lack of water supply while the Nandoni dam is always full. Nandoni Water Treatment Works must be more significant to cater to a daily demand of 98.8 mega litres. To address this, a plan is to upgrade the WTW from 60 to 120 mega litres.

Apart from the lack of capacity and reticulation issues, the MMC lamented the theft and vandalism of Eskom transformers and boreholes components, negatively affecting the water supply to communities. Eskom has since decided to suspend all replacement of transformers until the municipality guarantees their security.

**Briefing at the confluence of the Nandoni-Nsami bulk raw water pipeline and the water canal from the Middle Letaba Dam**

The committee observed the completed raw water pipeline discharging water into the canal to complement the supply from Middle Letaba Dam. The supply from Middle Letaba Dam is supposed to be 60 megalitres per day. Still, Middle Letaba Dam is reportedly unable to supply this amount because the farmers upstream are abstracting more than they ought to. In this case, ZZ2 was reported to be one of the farmers abstracting more than they are licensed.

**Recommendation:** The Department of Water and Sanitation should provide a report detailing the issues affecting Middle Letaba Dam water supply and the farmers allegedly abstracting more water than their licensed amounts.

**Briefing at the Nsami Water Treatment Works**

Electricity load shedding has compounded the functionality challenges of the Giyani Water Treatment Works. The plant was not corking during the oversight visit due to load shedding and repairs that were underway. There is 24/7 security at the plant. Water supply to communities is supplemented by water carting (tankers) to offset the lack of water from boreholes. The water loss is currently at 39%. The construction of a reticulation system is underway by 19 contractors appointed by Mopani District Municipality.

**Briefing at the Giyani Wastewater Treatment Plant**

Giyani wastewater treatment plant is a conventional wastewater treatment system. The plant is currently undergoing refurbishment and upgrade to 8 megalitres. The package plant constructed to treat wastewater during the refurbishment of the main plant now needs to be functional due to burnt and broken submerged pumps due to load shedding. This plant is built to cater for 4500 households. The backrooms are clogging the wastewater treatment system resulting in wastewater spillages onto the streets.

COGTA has appointed a contractor to carry out the refurbishments at this plant.

**Recommendation**: Mopani District Municipality should provide a report on the refurbishment and upgrading of the Giyani Wastewater Treatment Plant, which should provide details on timeframes, budget and interim solutions to wastewater treatment in Giyani.

**Recommendation**: The Department should provide a report on directives issued on Giyani Wastewater discharge of untreated wastewater into water resources. The report should indicate sanctions and criminal charges issued against the municipality.

**Briefing at Homo 14A village**

The Committee inspected the reticulation system at Homo 14A, which Vuka Vuka Trading is constructing on behalf of Mopani District Municipality. It involves the installation of a 75mm diameter uPVC pipeline. The reticulation system is at 40% completion. It will supply 746 households comprised of 2984 population. The communities are concerned with the speed within which the pipeline is laid to contain the durability and quality of the work. Nevertheless, the councillors are concerned that the project takes too long.

Community members informed the committee that they are currently buying water from those that have boreholes at R3,50 for 20 litres. In addition, the borehole water quality is poor as it has high sodium content, making it unsuitable for drinking and preparing baby milk. Kids spend more time carting water with wheel burrows than studying at school.

The municipality has three water trucks that are meant to serve 96 villages. These trucks are mainly used to supply water to funerals and villages when demand is low. The water supply challenges are compounded by vandalism, and the trucks now only provide water to nearby villages.

The contractor indicated that the project will be completed in 2 months which is June 2023.

**Resolution:** The committee resolved to visit the Project in June 2023 to observe the completion of the project.

1. **OBSERVATIONS BY THE COMMITTEE**
2. Although the committee welcomed the work undertaken by the Department of Water and Sanitation in respect of meeting its obligations of completing Phase 1 of the Giyani Bulk Water Project to deliver water from Nandoni Dam to the Nsami Water Treatment Plant, the committee was concerned that the constitutional obligations to ensure potable water to communities in and around the Nandoni Dam, over the years, has not as yet been met.
3. The committee noted the completion of the bulk infrastructure but questioned the disconnect and misalignment between the department’s work in ensuring bulk services provision within a set period, as opposed to the inability of municipalities to match the reticulation network systems soon after the completion of bulk construction. The committee maintained that this disconnect creates significant challenges and anomalies in ensuring the optimal functionality of water and sanitation across the water value chain.
4. The announcement by the department and Mopani District Municipality that reticulation for 24 villages has started with a 12-month anticipation completion date of June 2023 for water to flow to identified villages via year taps was welcomed. However, the committee harshly criticised the timeframes factored against the 10 to 15-year wait for available piped water to communities.
5. Refurbishment of old water treatment works and dysfunctionality of new water treatment works in Nsami confused the committee. Members argued that oversight on projects, with capturing associated risks on an ongoing basis, was critical in project management, which neither the department nor the district municipality was addressing.
6. The committee noted that overseeing the use of the Water Services Infrastructure Grant, the Municipal Infrastructure Grant and Equitable Share appropriations by the department and National Treasury. over the years to address operations and maintenance did not meet the grant’s objectives and was considered a fruitless and wasteful expenditure.
7. The committee urged the department to avoid promising unrealistic timeframes to complete projects. This frustrates communities when deadlines are not met, with no proper communication provided.
8. While the committee welcomed the department’s decision to increase the scope of work to include reticulation to households, it highlighted the continuing challenges of inadequate funding and skills in municipalities, which poses challenges for municipalities to deliver on their mandate.

1. The committee also criticised the vandalism of boreholes drilled to benefit the area’s people and maintained that it was unacceptable that 68 of the 154 boreholes had been vandalised. These should constitute acts of criminality, and the community must work with the South African Police Services to ensure perpetrators are arrested and prosecuted.
2. Although the committee was reassured by the department’s ability to undertake its work within the proposed timeframes, monitoring the proposed deadline for certain project phases was essential. This constitutes the completion of the 40-kilometre pipeline, with works such as the river crossings, chambers, and pressure testing at 26 kilometres. The installation of raw water pumps will be completed by 30 April 2023, with mobile pumps being used to fill the pipeline whilst the installation of permanent pumps is in progress. The refurbishment of the Giyani Water Treatment Works is expected to be completed by December 2023.
3. The myriad challenges within the water and sanitation scope of work in South Africa range from a critically water-stressed country, which requires scientifically regulating water supply and demand. Furthermore, the state of national and local government water and sanitation infrastructure, specifically wastewater treatment works, is well-captured in the recent Green Drop 2022 Report published by the Department of Water and Sanitation. Some of the Green Drop Report findings highlighted that wastewater treatment plants in South Africa often exceeded their design capacity, had dysfunctional processes, ineffective disinfection equipment, poor flow monitoring devices and needed to be more compliant in treating sewage and sludge. The Giyani Wastewater Treatment Works in the Mopani District Municipality is subject to the abovementioned challenges.
4. Members raised concerns about the sustainability of water and sanitation infrastructure (both new and ageing). They noted that not all poor households benefit from large-scale built water and sanitation infrastructure. The factors that contribute to not all households benefiting are many poorly functioning systems in rural areas, lack of reticulation systems, and restricted access in urban areas due to affordability or technical problems at the local government level. Many rural water supply schemes are not functional, maintenance budgets are inadequate, and many ventilated improved pit latrines are not being emptied. Many wastewater treatment works are operating over capacity and performing poorly. The total costs of providing services often need to be fully accounted for. More resources are required for the sector, from user fees and government grants to maintain services over time. In addition, there are governance failures within local government, the tier of government responsible for water services provision to households in terms of the Constitution.
5. Members argued that there is a need to relook at the ability of some municipalities to operate as water user authorities or water services providers. The crux of the debate was whether these functions be taken away from certain municipalities as the conditional grant is not optimally used for its intended purposes or should these grants be ring-fenced to ensure compliance by municipalities. Another point was that National Treasury, in monitoring and evaluating spending trends on water services in municipalities, will not issue any enforcement against a particular municipality for using the equitable share for other projects. Therefore, there is a need to bring about more stringent accountability measures against non-performing municipalities.
6. **RECOMMENDATIONS**

**7.1 Consequence management**

The committee called for consequence management to be implemented against those who have defrauded the state, thereby negatively impacting the implementation of the project. In its Legacy Report, the committee will urge the Portfolio Committee on Water and Sanitation in the 7th administration to ensure focused oversight on the investigation and prosecution of perpetrators.

1. **Monitoring of timeframes in respect of the completion of different phases of the project and leveraging technology for sustainable water management at bulk infrastructure projects**

The Department of Water and Sanitation and Mopani District Municipality should explore ways to fast-track the construction processes through modern technology, such as using solar panels for electricity generation for water treatment plants and digital construction planning. Additionally, project managers should work closely with suppliers and contractors to ensure timely delivery of materials and equipment to avoid unnecessary delays.

**7.3 Importance of long-term monitoring and planning**

Water and sanitation bulk infrastructure project planners should identify and solve design and construction conflicts beforehand by implementing a robust project management plan and effective stakeholder coordination to minimise delays.

**7.4 Security of boreholes and bulk water and sanitation infrastructure projects**

The Department of Water and Sanitation and Mopani District Municipality should factor in increased security measures to protect costly infrastructure, such as boreholes and bulk and sanitation, against vandalism and theft.

1. **Optimising functionality of wastewater treatment works by following standards and ensuring systematic operations and maintenance with funding**

The committee recommended that the Minister, through the Department and Entities, working together with all three spheres of government and optimally using the parameters of the District Development Model, work out short (3 months) medium and long-term (6 months) solutions to facilitate the action on pollution challenges in the country.

1. **Addressing the capabilities and capacities of Water Services Authorities to take over bulk water and sanitation infrastructure to ensure sustainability**

The committee recommended that the department undertake more work on Mopani District Municipality’s ability to sustain bulk water infrastructure projects, such as wastewater treatment plants and water treatment works in Nsame, so that no duplication of work is undertaken. Guidance and interventions to assist the district municipality are strongly recommended.

1. **Public-private partnership to assist with operations and maintenance of bulk water and sanitation infrastructure to avoid project cost overruns**

The department and water services authorities must conduct a detailed cost-benefit analysis and risk assessment to identify potential cost overruns and develop a contingency plan upfront. The team should also explore using sustainable and cost-effective construction materials and technologies to reduce project costs. Additionally, the project team can engage with the local community and other stakeholders to secure funding or investment for the project.

**7.8 Technical complications**

To avoid technical complications, it is imperative that the project team can engage with technical experts and specialists to conduct thorough feasibility studies and detailed design and engineering analysis to identify potential technical challenges upfront. It is essential for project teams to also communicate extensively with all stakeholders, especially the local community, to gain valuable input and insights into the project’s technical requirements. Furthermore, the project team should establish a working relationship with the local authorities and government agencies responsible for water resources management to obtain necessary permits and approvals.

1. **Tracking of progress reports on the appointment of contractors**

The department should provide systematic bi-monthly progress reports on the contractors used to facilitate the reticulation of potable water for the 24 villages (either virtual or written) in respect of funding, names of contractors and timeframes, with additional information once other contractors are appointed to reticulate other villages.

**Report to be considered.**

1. The information that follows was sourced from the 2022/23 Integrated Development Plan of the Mopani District Municipality. [↑](#footnote-ref-1)