

TERMS OF REFERENCE FOR A SOLICITED WRC PROJECT

Theme: Water Availability

Title: Socio-economic and governance models for integrating small-scale aquaculture into existing inland fisheries

ToR:

1. Rationale for the Study

Current research indicates a substantial decline in fish diversity and abundance in major South African impoundments due to overfishing, habitat degradation, and hydrological mismanagement. Rural communities surrounding inland water bodies are highly dependent on fisheries for food security and supplementary income. The collapse of wild fish stocks directly increases the vulnerability of marginalised households that depend on the sector. Integrating aquaculture into fisheries offers a strategic pathway to rebuild local livelihoods and food systems while allowing wild stocks to recover through restoration measures.

Current governance is characterised by fragmented planning among dam managers, provincial authorities, and communities, leading to a lack of oversight and accountability. New models are required to define co-management structures that can accommodate both capture fisheries and aquaculture activities within the same resource space. There is a need to shift from unregulated, informal harvesting to structured management. This necessitates the integration of small-scale aquaculture and the establishment of equitable access rights for small-scale producers who have historically been excluded.

2. Main Objective

To develop an integrated socio-economic and governance model for the formal integration of small-scale aquaculture into inland fisheries systems, providing a framework for sustainable co-management, resource enhancement, and the formalisation of local livelihoods in response to the ecological collapse of wild capture fisheries and rural food insecurity.

Specific objectives:

1. Assess socio-economic dependencies and vulnerability. Evaluate the current reliance of surrounding rural communities on inland fisheries for nutrition and income, and identify specific barriers to their participation in aquaculture.
2. Diagnose governance and policy constraints. Analyse the existing management structures among provincial authorities, dam managers, and local communities to identify gaps in oversight and accountability.
3. Develop co-management and integrated planning models. Design a co-management framework that incorporates both small-scale aquaculture and wild capture fisheries into catchment-level resource planning.
4. Evaluate formalisation and resource enhancement pathways. Assess the potential for strategic restocking, controlled harvest regimes, and the establishment of equitable access rights to ensure the long-term sustainability of integrated fisheries.

3. Deliverables

1. Socio-economic baseline and fisher vulnerability assessment report.

2. Governance and institutional capacity diagnostic report.
3. Integrated aquaculture–fisheries co-management framework.
4. Fisheries enhancement and formalisation pathway strategy.
5. Final integrated, print-ready report.

Total Funds Available: R 2 500 000

Year 1: R 300 000

Duration: 3 years