

**“Ruaha +10”**

Two-day seminar

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Sokoine University of Agriculture

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## **Canal closure Programme for Compensation Flows: Is it working?**

By I.A. Msuya

Rufiji Basin Water Office

## **Outline of Presentation**

- Introduction
- The rationale and objectives of the canal closure programme
- Methodology of monitoring
- Results
  - Implementation of the programme
  - Effects on downstream compensation flows
  - Effects on the livelihood of rural people
- Conclusion
- Recommendations

## **1.0 Introduction**

- Change of the Great Ruaha River from perennial to seasonal
- Initiatives of Usangu Water Management Committee (UWMC)

## **2.0 The rationale and objectives of the canal closure programme**

- Feeling that large irrigation schemes were taking too much water during the dry period
- To save for downstream requirements during the dry season
- Agreed that all canals for the large schemes be closed by end of June each year and of course opened gradually by November for establishment of paddy nurseries
- A maximum of about one cumec was allowed to be abstracted by each scheme for domestic purposes
- Mbarali Rice Project was allowed to take a maximum of one and half cumec due to the fact that the farm is also engaged in livestock keeping
- RBWO-Rujewa office with the help of DED, Mbarali District given the responsibility to supervise and monitor implementation of the programme

### 3.0 Methodology

- Spot discharge measurements in canals and drains
- Monitoring of zero flow days at Nyaluhanga gauging station

### 4.0 Results

- Kapunga and Mbarali irrigation schemes are actually abstracting less than what they have been allocated
- Exception is late October to November due to paddy nurseries establishment
- Decreasing number of zero flow days at Nyaluhanga gauging station since 2001
- E.g. 1999: River dried from 24/10 to end of December
- 2003: River dried from 22/11 to 30/11

### 5.0 Effects of the closure programme on the livelihood of rural people

- Too much water going into the Ifushiro swamp reduces valley bottom farming, flood recession agriculture, fishing and grazing livestock, resulting into reduced incomes
- Increased weeding load (no enough water to suppress weeds prior to transplanting)
- Shorter period for growing paddy, hence stiff competition for hired labour resulting into increased paddy production costs

### 6.0 Conclusion

- Canal closure programme seems to have reduced the number of zero flow days as monitored at Nyaluhanga
- Has some negative impacts on the livelihood of some of the rural people

## Recommendations

- More time and an in-depth study be undertaken to ascertain the long-term effects of the canal closure programme
- Efforts should be increased to bring on board the smallholder farmers who cultivate the remaining 75% of the paddy producing area. First priority should be given to farmers from remaining perennial rivers