

# SAGCOT Investment Partnership Program

Initiatives to ensure  
sustainable water supply  
for communities and investors  
in the SAGCOT Corridor

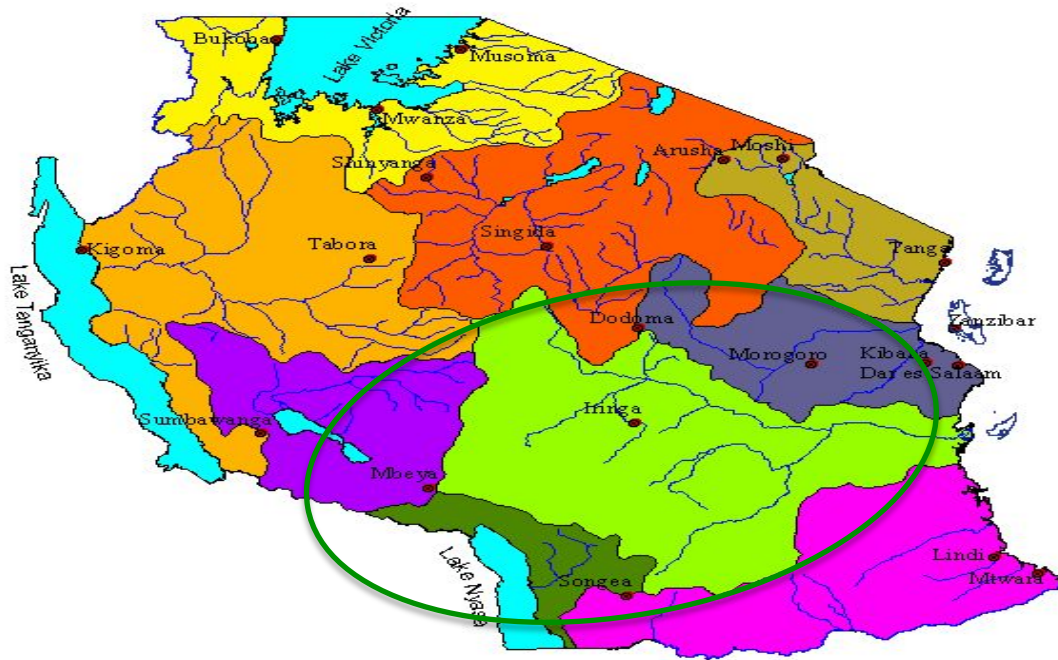
Presented by the Minister for Water  
Hon. Prof. Jumanne Maghembe (MP)  
to the Tanzania Agribusiness  
Investment Showcase Event










27 November 2012



# River and Lake Basins covered in the SAGCOT corridor

**River Basins in Tanzania**



| Basins   | Basins                              |
|--|-------------------------------------|
|  | Lake Victoria Basin                 |
|  | Internal Drainage Basin             |
|  | Lake Tanganyika Basin               |
|  | Rufiji Basin                        |
|  | Pangani Basin                       |
|  | Wami/Ruvu Basin                     |
|  | Lake Rukwa Basin                    |
|  | Ruvuma and the Southern Coast Basin |
|  | Lake Nyasa Basin                    |

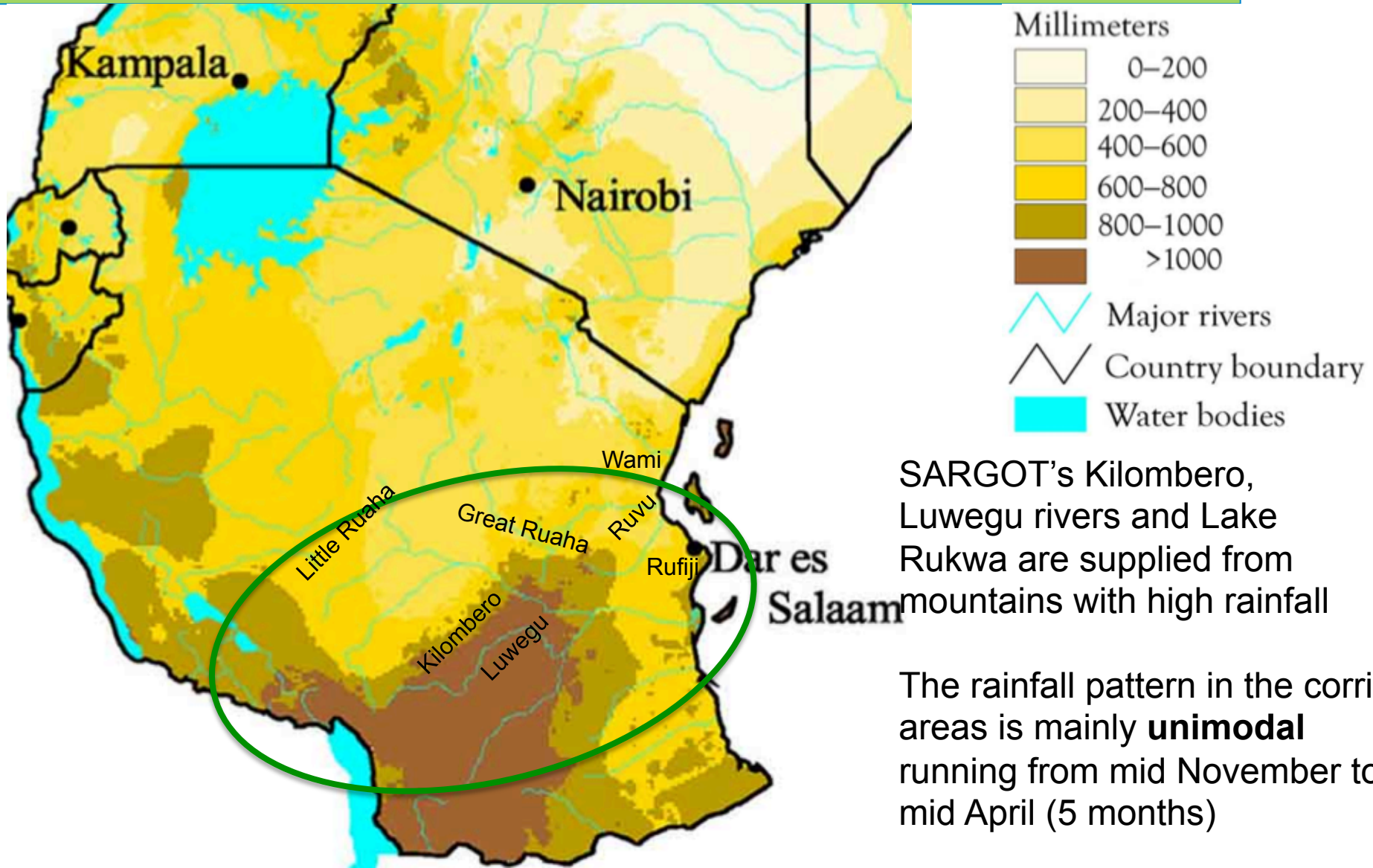
Ministry of Water and Livestock Development  
Water Resources Division

300 0 300 Kilometers

- The SAGCOT corridor mainly covers three water basins, namely **Rufiji, Wami/Ruvu and Lake Rukwa**
- The SAGCOT corridor was chosen mainly due to its good climate that provides ample water supply
- The flow volume of the Rufiji river is estimated to be 22.2 billion cubic metres per year

# Rainfall, major rivers and lakes in the SAGCOT corridor

Map showing total Precipitation per annum (5 months Optimal Season)



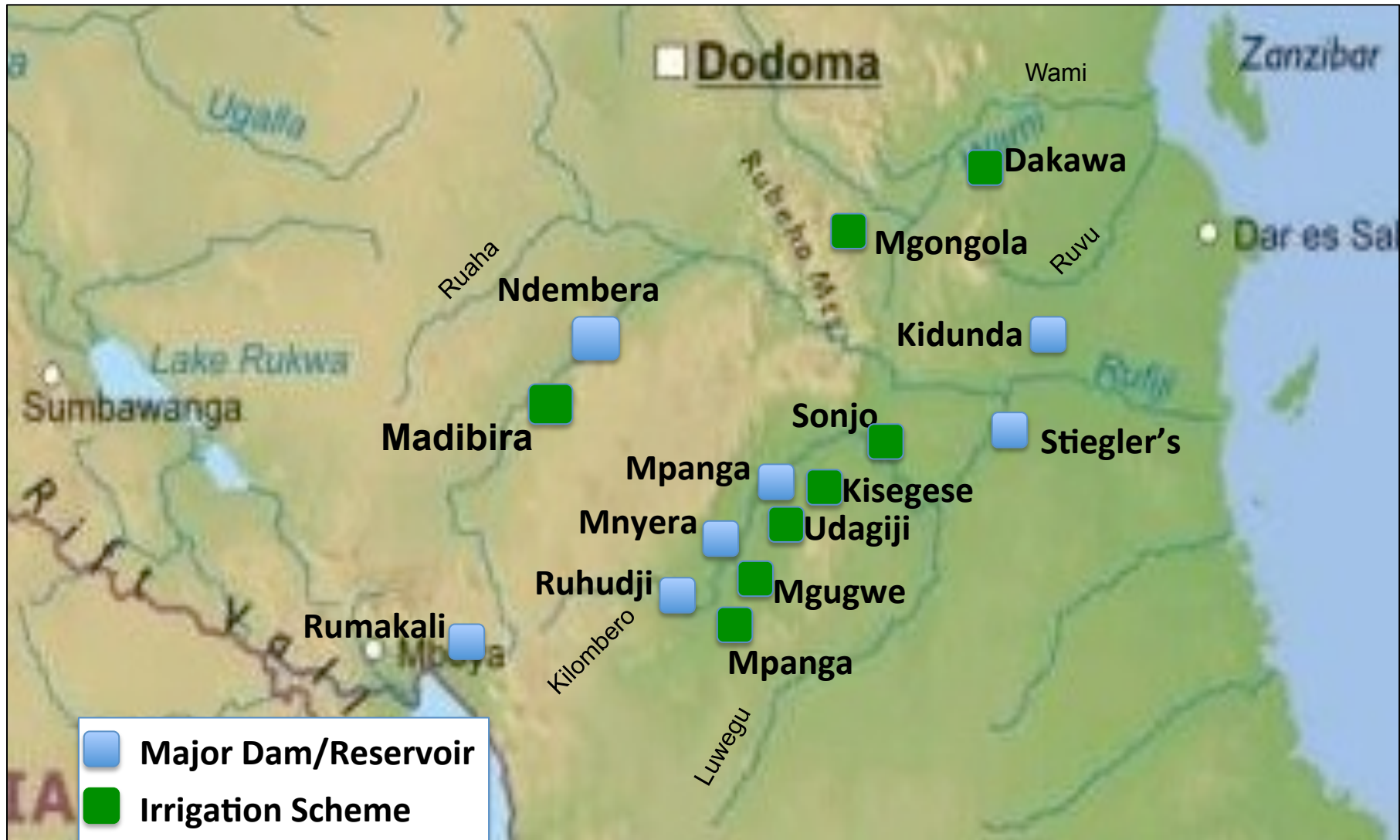
SARGOT's Kilombero, Luwegu rivers and Lake Rukwa are supplied from mountains with high rainfall

The rainfall pattern in the corridor areas is mainly **unimodal** running from mid November to mid April (5 months)

# Existing dams/reservoirs and irrigation schemes in the SAGCOT Corridor



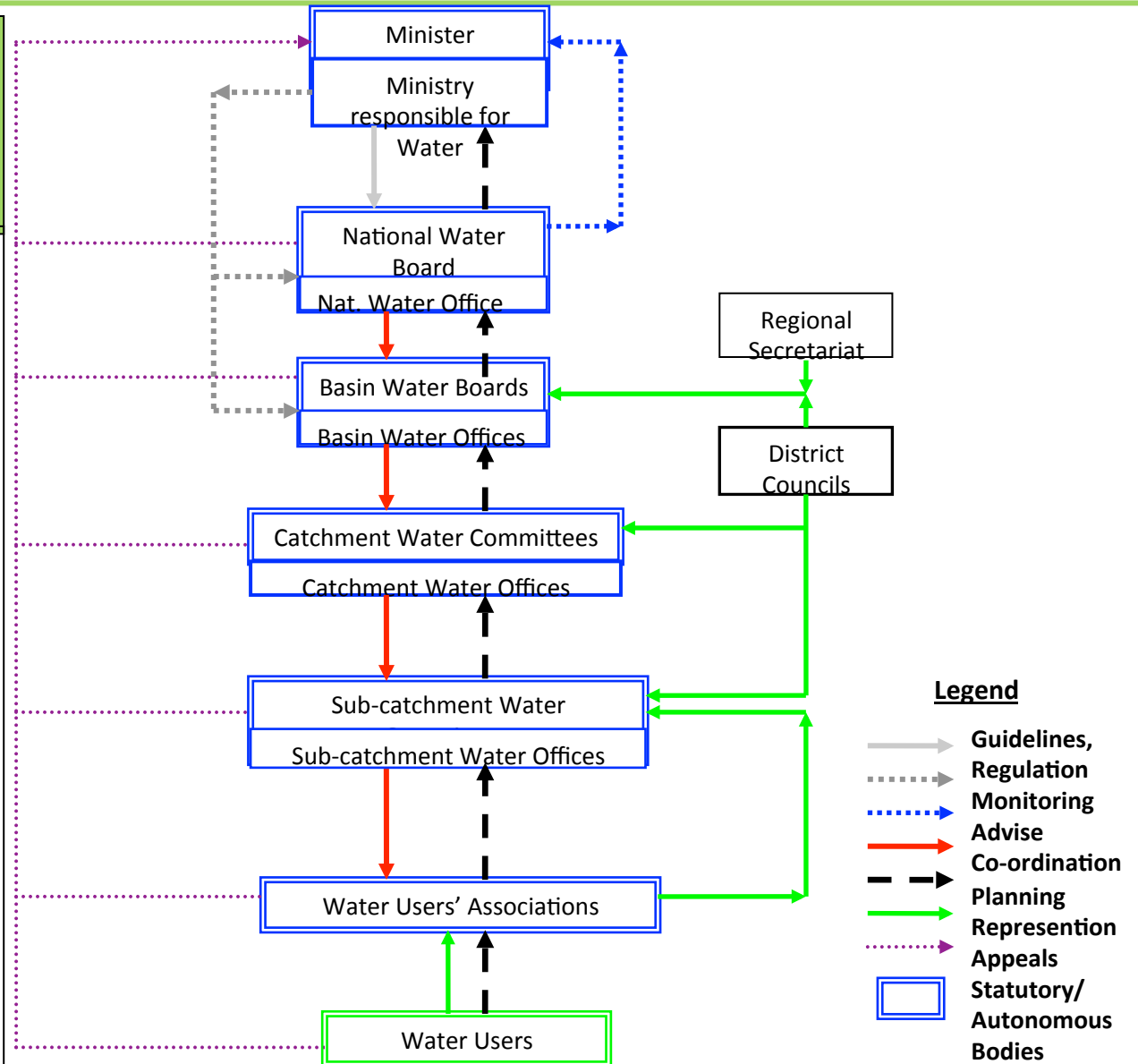
# New dams and irrigation schemes planned in SAGCOT corridor



# Institutional Framework for Water Resources Management

## The National Water Policy (NAWAPO) of 2002 Stipulates the Institutional Framework for Water Resources Management

- **National level** (Minister for Water, Director of Water Resources and National Water Board)
- **Basin level** (Basin Water Boards)
- **Catchment level** (Catchment / Sub catchment Committees)
- **District level** (District Facilitation Teams) and
- **Water User Association level** (WUA) which is the lowest level and will integrate users of the same source



## Key issues to be addressed before a water right is issued

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- The Water Resources Management Act No. 11 (2009) empowers the Basin Water Boards (BWB) to issue water rights and register all water users in the respective basins
  - Water flow analyses are conducted to determine the amount of water available before a water rights is issued
  - An Environmental Impact Assessment (EIA) must be conducted for all major irrigation schemes and cleared by the National Environment Management Council (NEMC) before a water right can be issued
  - Limits to volume of water abstraction/diversion is sometimes imposed to cater for the environmental flow requirements, consideration of existing users and potential uses of water
  - Water quality tests are normally conducted by the Ministry of Water. However, it is the responsibility of the prospective user to ensure that the quality of water meets the intended use and any discharge back into the river must be in accordance to standards set and a sometimes a discharge permit is required.

- Integrated Water Resources Management and Development Plans (IWRM&D) being conducted in all basins are expected to provide a more clearer picture of water availability in the catchments and sub catchments of different basins
- The IWRM&D Plan for Wami/Ruvu Basin is completed and for Rufiji and Internal Drainage Basins will be completed this financial year 2012/13. The IWRM&D Plans for other basin are expected to be completed in the financial year 2013/14

## Surface water resources in the catchments (sub-basins) of Rufiji Basin

| Sub-Basin    | Drainage Area (Km <sup>2</sup> ) | % of Total | Annual Average Rainfall (mm) | Annual Average Flow (bcm/yr) | % of Total   |
|--------------|----------------------------------|------------|------------------------------|------------------------------|--------------|
| Great Ruaha  | 85,554                           | 46.5       | 400 - 1200                   | 3.3                          | 14.9         |
| Kilombero    | 40,330                           | 21.9       | 1000 - 2000                  | 13.8                         | 62.2         |
| Luwegu       | 25,288                           | 13.8       | 800 - 1000                   | 4                            | 18.0         |
| Lower Rufiji | 32,619                           | 17.7       | 650 - 1100                   | 1.1                          | 5.0          |
| <b>Total</b> | <b>183,791</b>                   | <b>100</b> |                              | <b>22.2</b>                  | <b>100.0</b> |

Source: Rufiji Basin Water Office (RBWO); May 2010



- Rehabilitation and modernization of the hydrometric , rainfall and weather stations operated by the Ministry in order to improve water resources management
- A total of 362 hydrometric stations will be rehabilitated/modernized to include automatic water level recorders by the end of the financial year 2012/13
- A total of 162 rainfall and weather stations will also be rehabilitated/modernized to include automatic rain gauges and automatic weather stations by the end of the financial year 2012/13
- Drilling of boreholes to supplement surface water use in water stressed areas particularly in Pangani basin and Usangu catchment of Rufiji basin
- Enhancement of water demand management to reduce wastage of water particularly in irrigated agriculture
- Protection of important water sources from human activities through gazetting and prohibition of human activities

# Opportunities for Investment in the Water Sector

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- The IWRM & D plans will result in a number of projects aimed at ensuring water security in the country. Investors are invited to partner with the government through the PPP window in the following areas:
- Development of multipurpose reservoirs, for example Ndembera reservoir in Usangu catchment of Rufiji Basin and Farkwa reservoir in Internal Drainage Basin
- Promotion of conjunctive use of surface and groundwater for irrigation in water stressed catchments. For example Usangu catchment in Rufiji Basin
- Other water storage facilities to be proposed by the IWRM&D studies in the SAGCOT and other areas of the country

## Contacts for the Ministry of Water

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Thank you for listening

For any inquiries about water supply and off-take, please contact:

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