



WATER STORAGE AND HYDROPOWER DEVELOPMENT FOR AFRICA

**CAPACITY BUILDING IN MOZAMBIQUE FOR WATER RESOURCES DEVELOPMENT
AND MANAGEMENT**

SESSION 7: Capacity building

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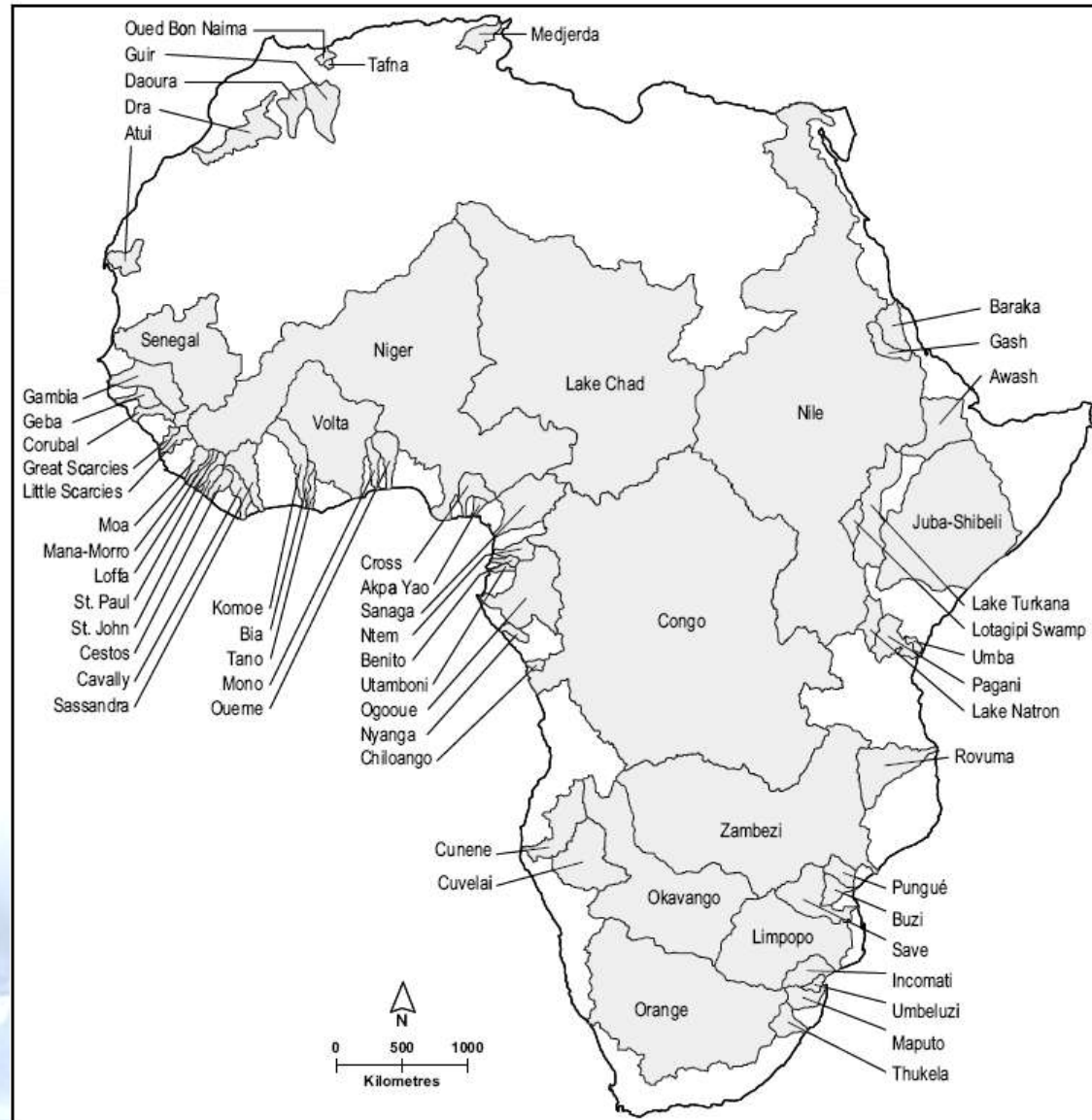
PRESENTATION LAYOUT

- ❖ **WATER RESOURCES DEVELOPMENT AND MAN IN MOZAMBIQUE**
- ❖ **DAM AN STORAGE DEVELOPMENT IN MOZAMBIQUE**
- ❖ **TRAINING AND CAPACITY BUILDING IN MOZAMBIQUE**
- ❖ **KEYS ISSUES**



AFRICA HYDROPOLITICS

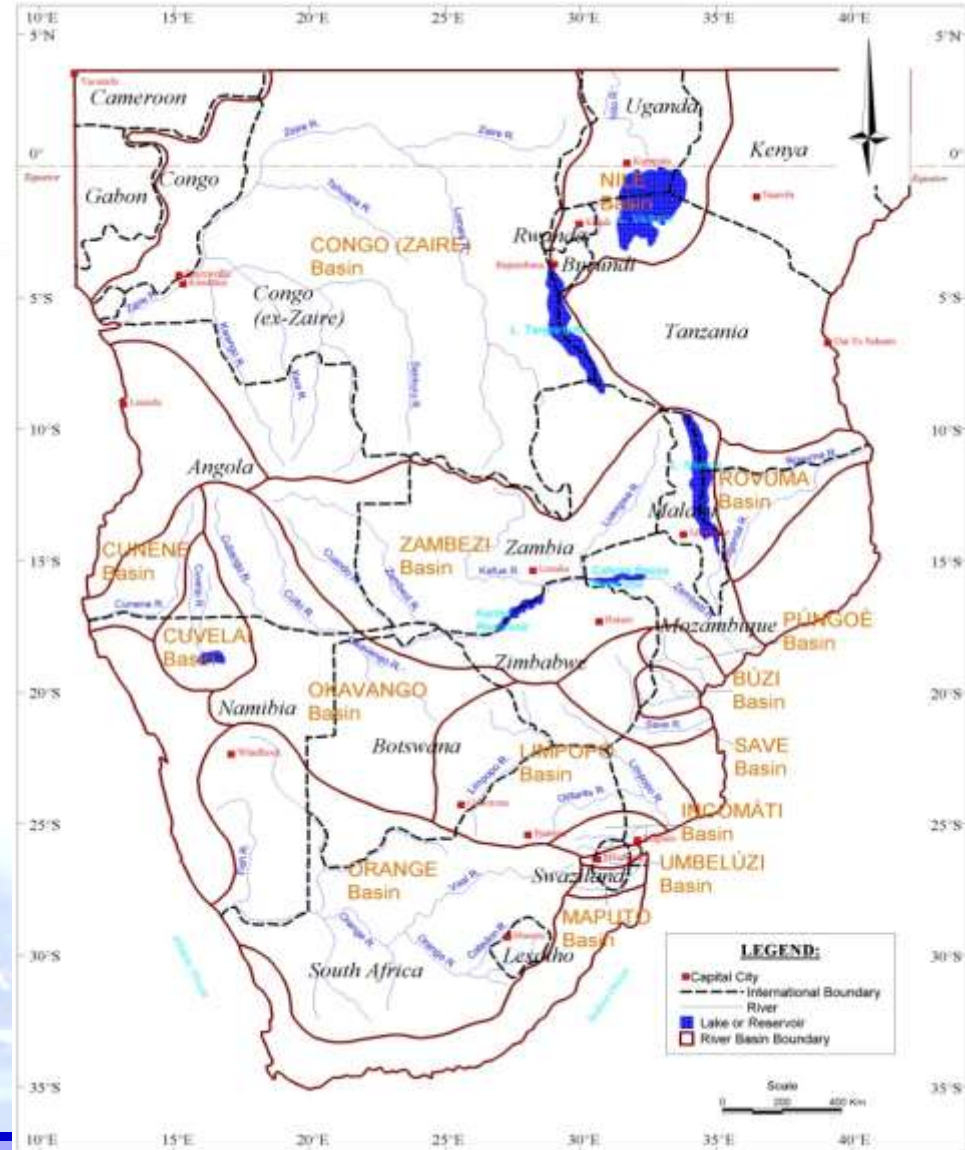
- THERE ARE 263 KNOWN TRBs WORLDWIDE 63 IN AFRICA.
- COVERING 2/3 OF LAND AREA.
- 75% OF POPULATION.
- 93% OF TOTAL SURFACE WATER.
- HENCE THE NEED FOR FAIR AND EQUITABLE SHARING.
- THERE ARE LARGE GAPS IN KNOWLEDGE.





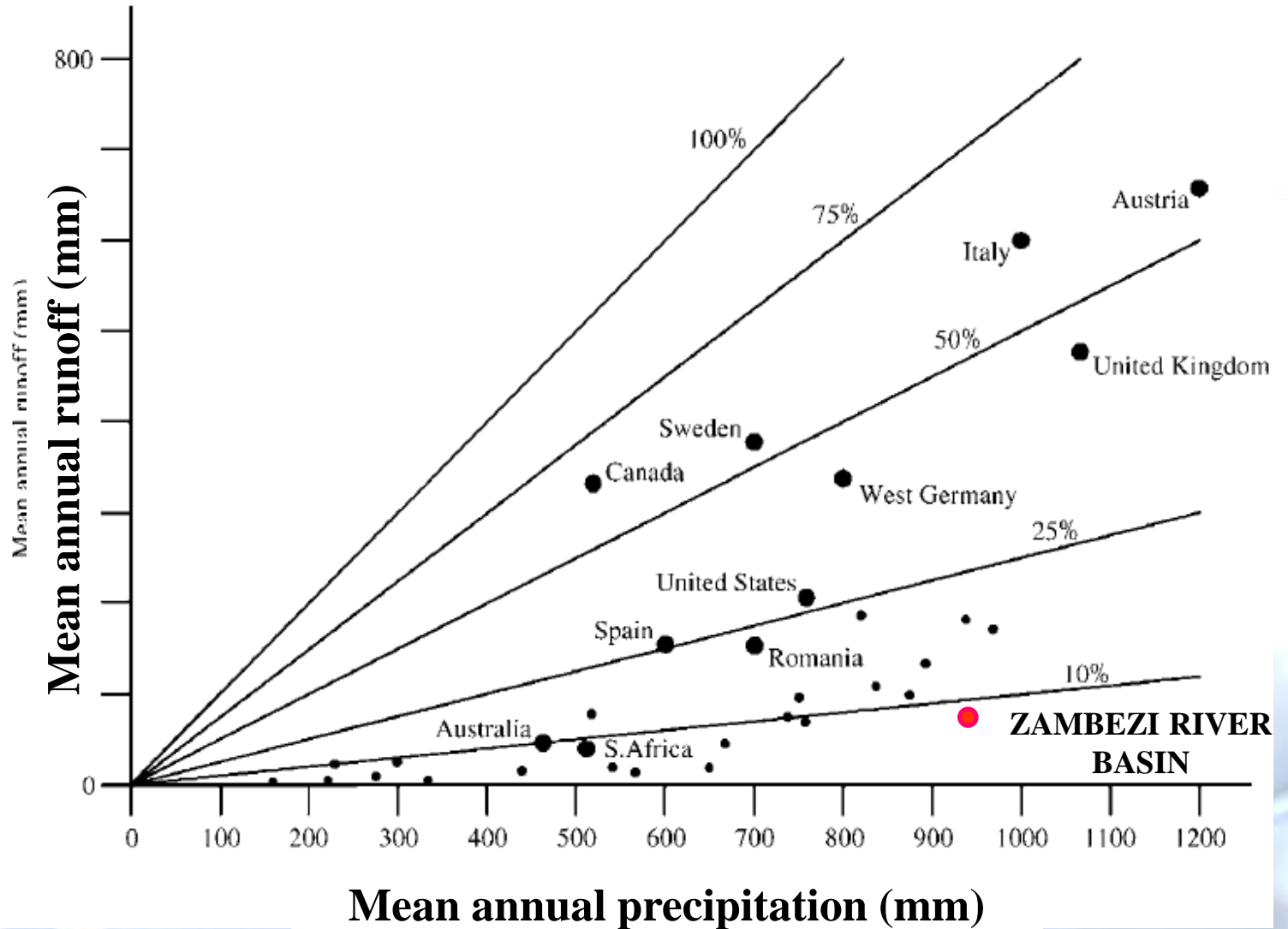
MAIN FEATURES OF THE SADC REGION

- ❖ THE SOUTHERN AFRICA DEVELOPMENT COMMUNITY (SADC) COMPRISES 14 STATES (INCLUDING MADAGASCAR AND MAURITIUS)
- ❖ With 15 INTERNATIONAL RIVER BASINS
- ❖ MORE THAN 70% OF LAND AREA FALL WITHIN A DESIGNATED IRB TERRITORY



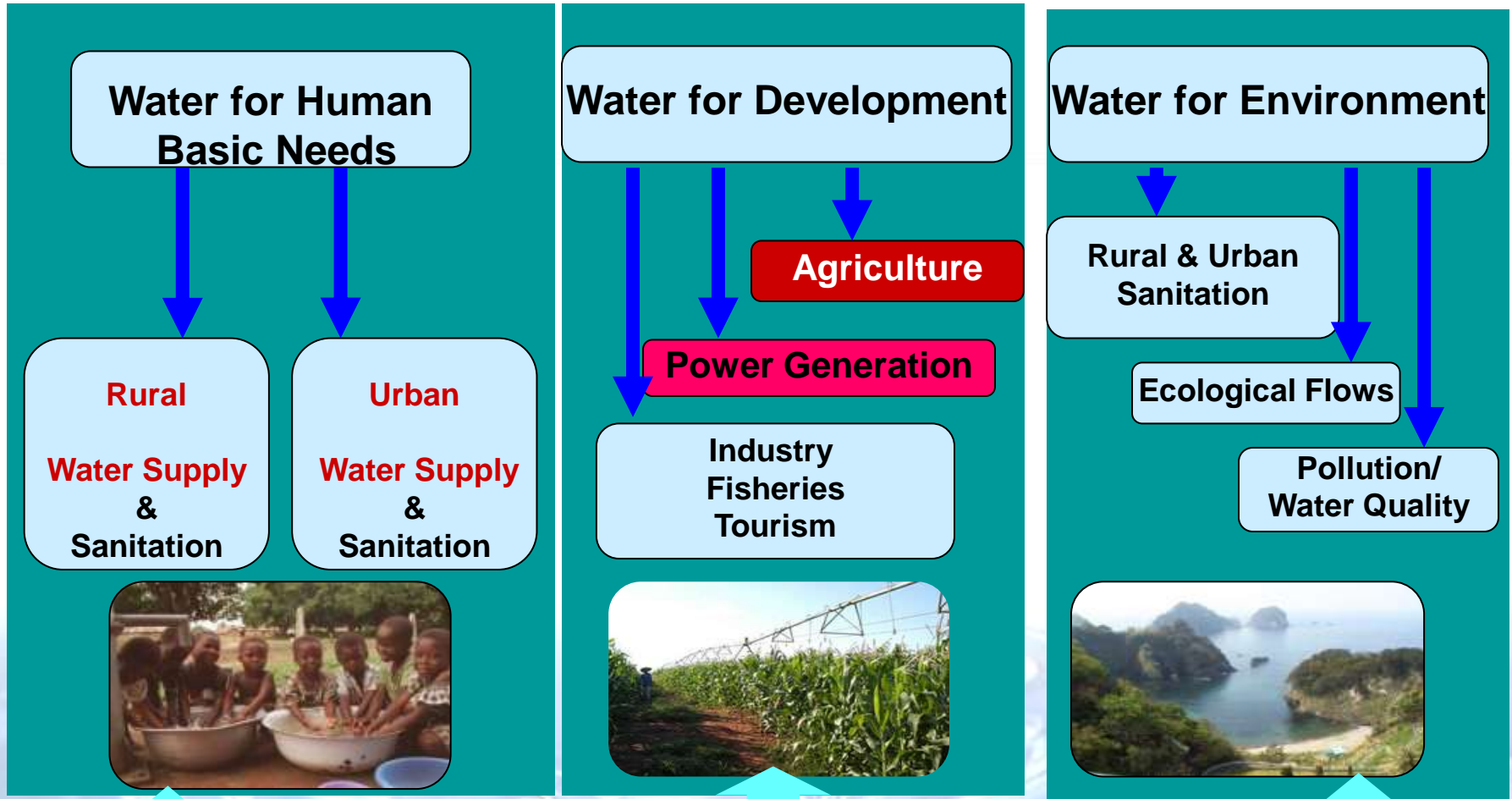


MAIN FEATURES OF THE REGION





WATER POLICY IN SADC COUNTRIES: THE MAIN PILLARS FOR IWRM



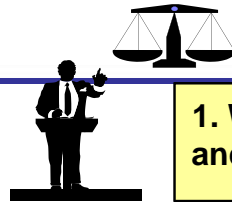
Integrated Water Resources Management





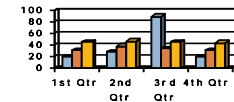
MAIN ELEMENT OF WATER RESOURCES MANAGEMENT STRATEGY

Ex. MOZ Building Blocks



1. Water policy and Water Law

2. Institutional Capacity Building and Human Resources Development



8. Public Awareness and Stakeholders Participation



Sustainable and Equitable Utilization of Water Resources, and Efficient Floods and Droughts Mitigation

3. Water Resources Data, Information and Knowledge



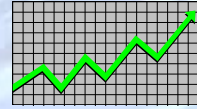
7. Shared Watercourses



6. Water and Environment



5. Economy, Investments and Finances

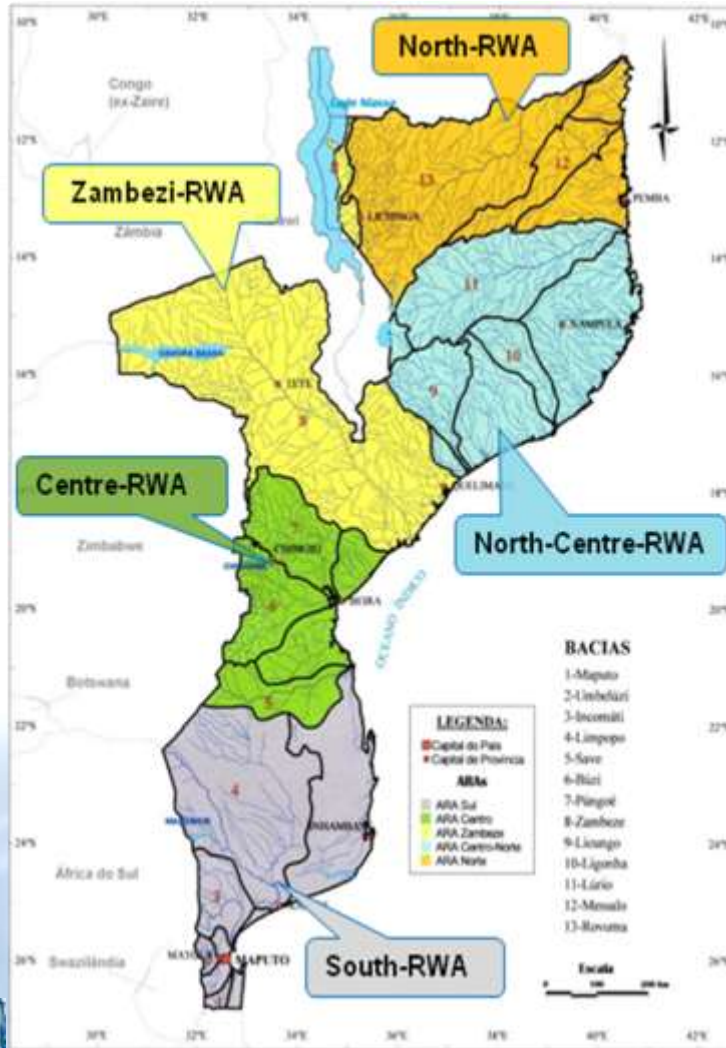


4. Water Resources Development





WR Management arrangements



- Population of about **23 million** with an average density of **26 inhabitant per square km**.
- Main source of water is **surface water** with more than **104 identified river basins**.
- Mozambique **downstream** country in **8 international rivers**. In total it shares 9 of the 15 rivers in SADC.
- Extremes in the river flow regime resulting in recurring **water shortages** and **floods**.



Dams and Storage Devel.

- Lichinga (0.73 MW)
- Cuamba (1 MW)
- Cahora Bassa (2075 MW) - IPP
- Chicamba (38 MW)
- Mavuzi (42 MW)
- **Temane (5 MW)**
- Corumana (14 MW)





Dams and Storage Devel.

Name of Project	Capacity
Tsatse	50 MW
Muenezi	25 MW
Mavuzi	10 MW
Alto Ligonha	40 MW
Alto-Molócue	40 MW
Mugeba	175 MW
Lucite	180 MW
Buzi – Miracuene	300 MW
Pungoé – Pávua	150 MW
Pungoé – Blue Maria	80 MW



TRAINING AND EDUCATION IN MOZAMBIQUE

- **Sub-systems:** (i) *General Education*; (ii) *Adult Education*; (iii) *Technical and Vocational Education*; (iv) *Teacher Training*; and (v) *Higher Education*.
- **Levels:** (i) *Primary/Elementary*; (ii) *Basic*; (iii) *Medium*; and (iv) *Tertiary*.

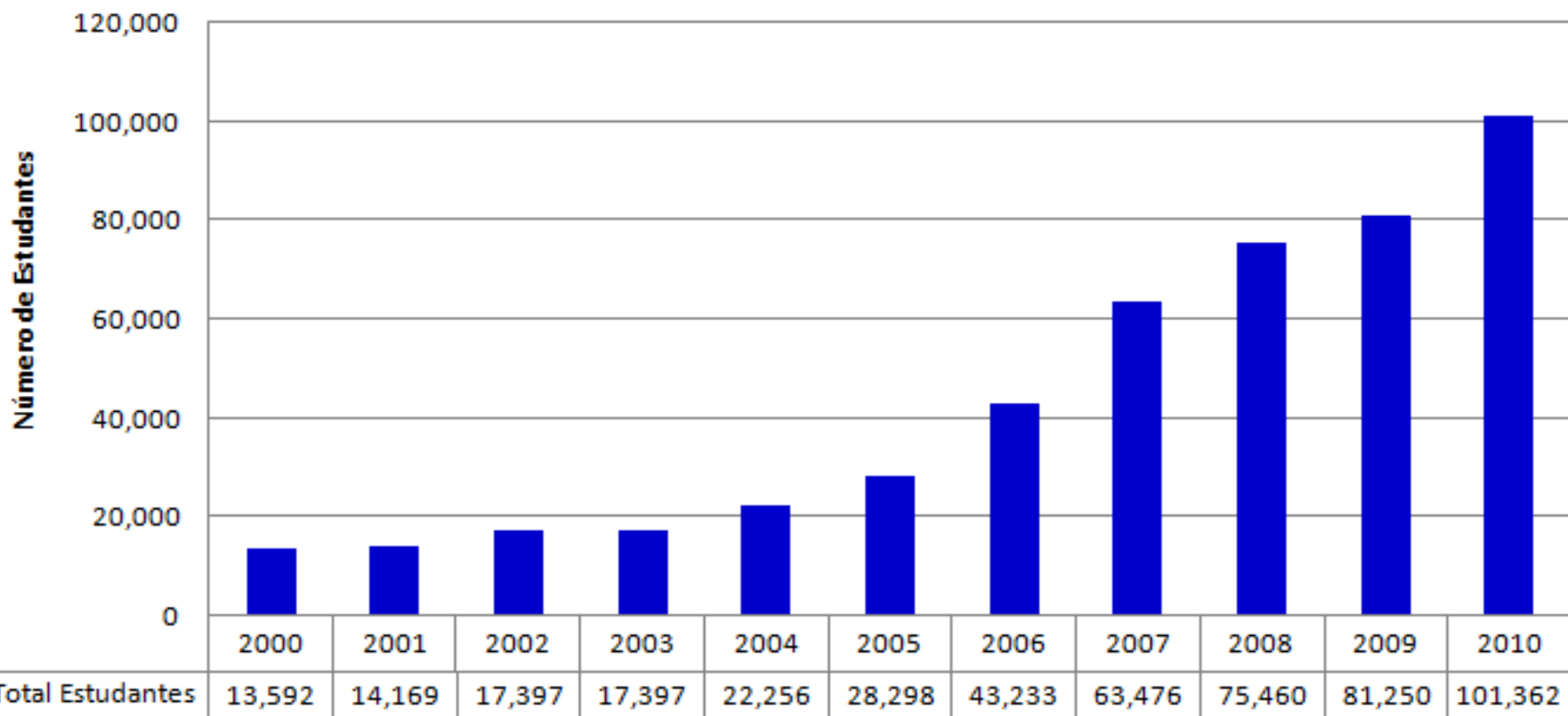


CAPACITY NEEDS FOR WATER MANAGEMENT

- **Water engineer:** *qualified or professionally engaged in the branch of engineering specifically related to the provision of water and sanitation facilities or infrastructure (i.e. civil/environmental engineers).*
- **Engineer (other):** *qualified or professionally engaged in another branch of engineering that is required in the planning, design or operation of water and sanitation facilities or infrastructure (e.g. hydro-geologists, geotechnical engineer, mechanical/electrical engineers).*
- **Management and Finance:** *qualified or professionally engaged in management and finance (e.g. Managers (finance, HR, strategic) and office manager (administrative functions)) as well as a person who procures goods and services or a cost planner.*



TERTIARY EDUCATION IN MOZ



Main increase are in humanities and arts, management and law

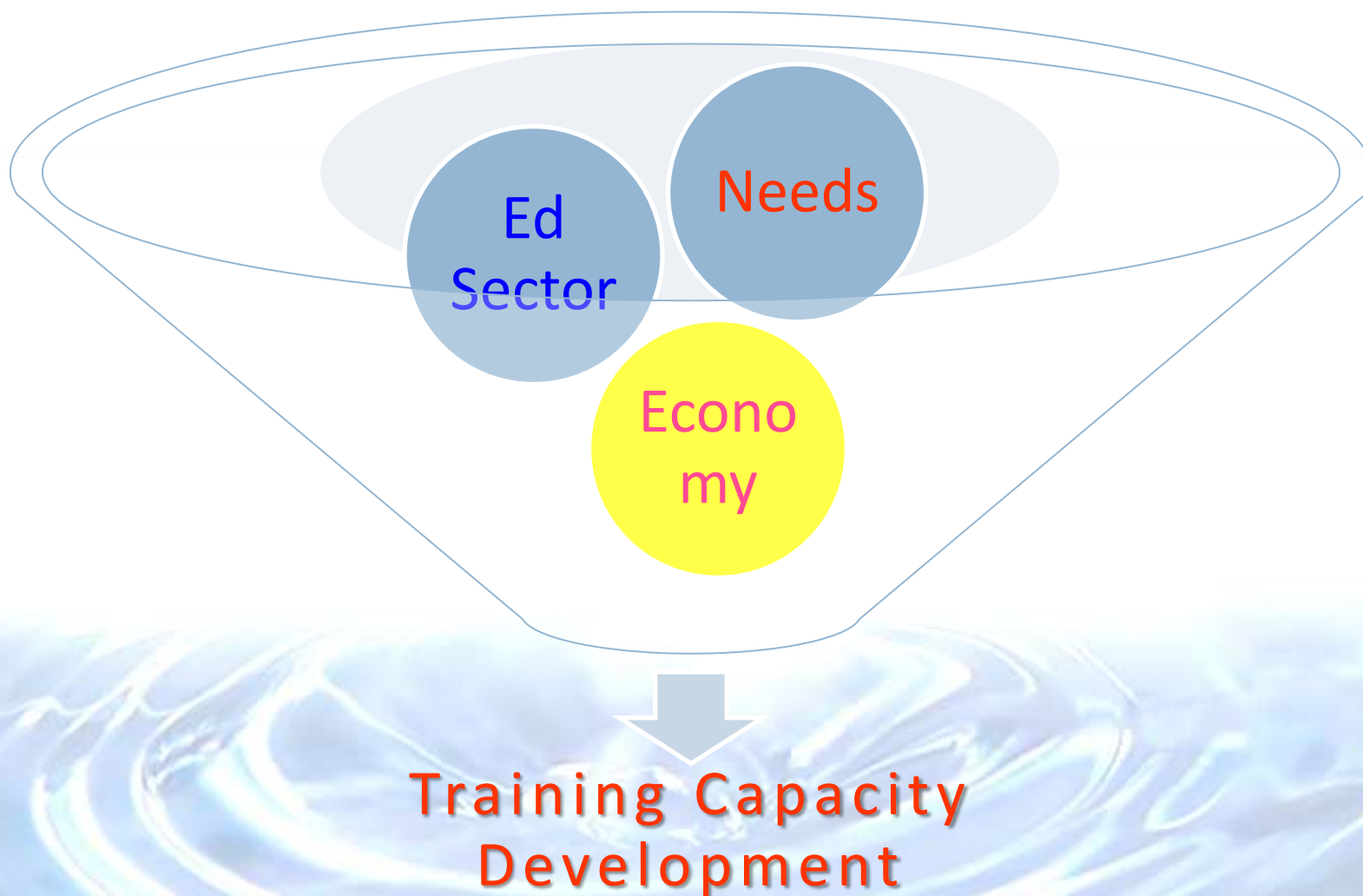


KEY ISSUES AND CHALLENGES

- Nr of tertiary education institutions offering technical subjects in limited
- **Small nr of graduates in engineering related subjects**
- High cost for setting up technical education
- **Limited nr of specialized courses offered**
- Nr of large dams built since independence (1975) - Corumana (88), Pequenos Libombos (86), Muda (2011) and Messica (2010).
- **Short courses run sporadically**
- **Economy growth puts demand on infr development**



KEY ISSUES AND CHALLENGES





THANK YOU