



USAID
FROM THE AMERICAN PEOPLE



Implementing Integrated Water Resources Management in Ebonyi State: Plan of Action

By
Babatope Babalobi,
Institutional Development Specialist, SUWASA
babalobi@yahoo.com

Implementation of IWRM in Ebonyi State: Briefing meeting
December 10, 2014



USAID
FROM THE AMERICAN PEOPLE



OUTLINE

- WATER RESOURCES BACKGROUND
- WHAT IS IWRM?
- IMPLEMENTING IWRM IN EBONYI
- IWRM ACTION PLAN FOR EBONYI STATE



USAID
FROM THE AMERICAN PEOPLE



WATER RESOURCES BACKGROUND



USAID
FROM THE AMERICAN PEOPLE



The Global Water Budget

Global Water

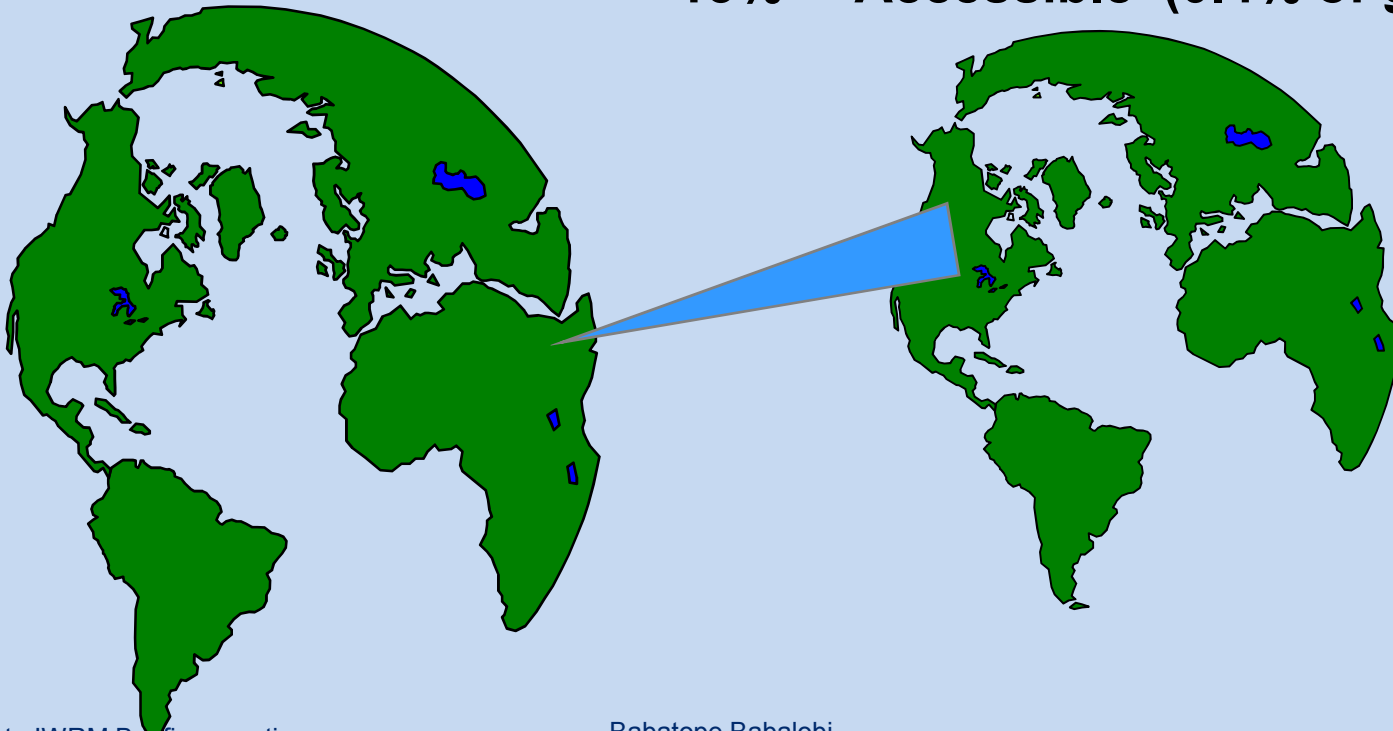
97% Seawater

3% Freshwater

Global Freshwater

87% Not Accessible

13% Accessible (0.4% of global)

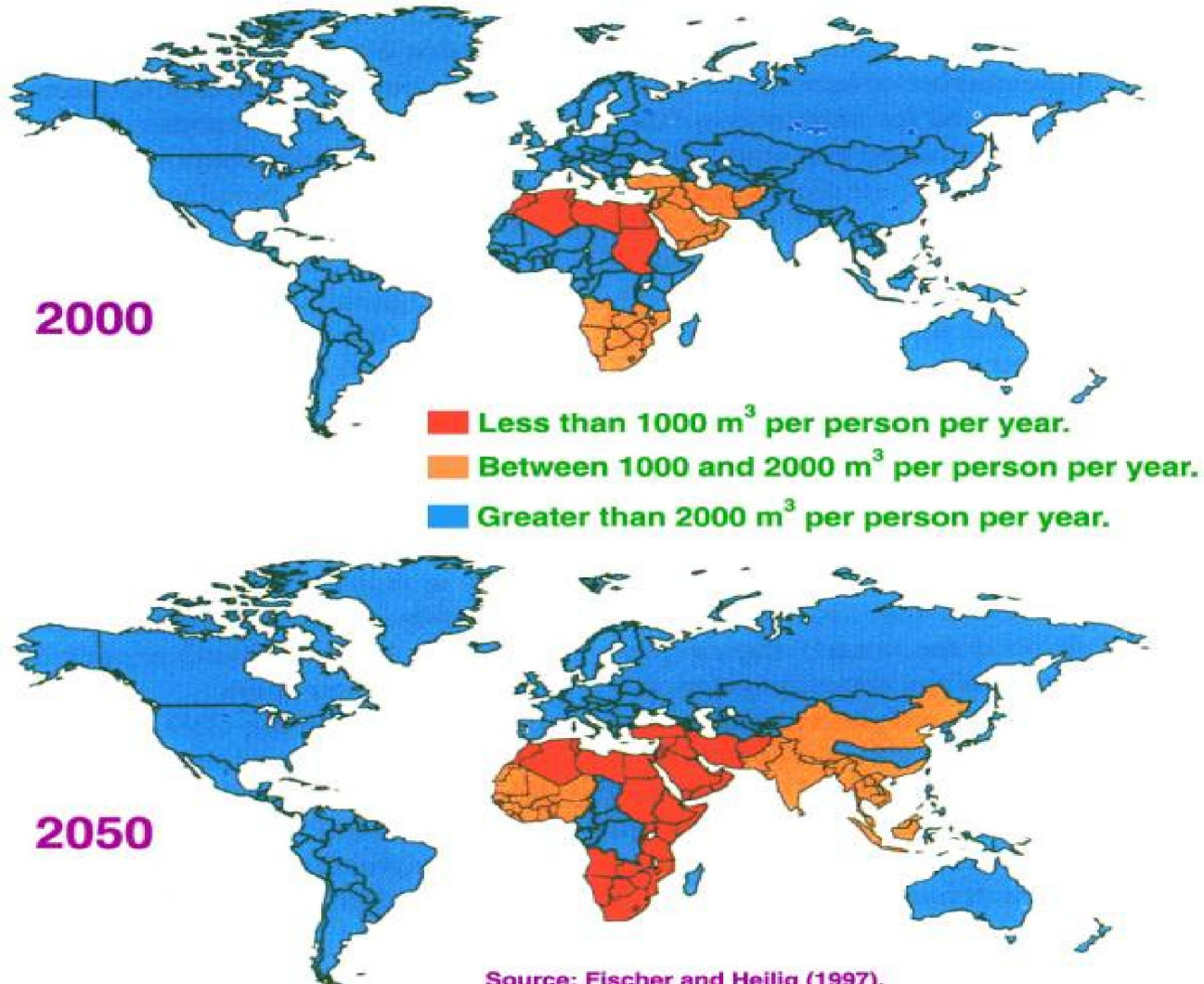




USAID
FROM THE AMERICAN PEOPLE



Global Water Scarcity





USAID
FROM THE AMERICAN PEOPLE



Water is Life

- **Every organism, individual, and ecosystem on the planet depends on water for survival.**
- **Water impacts all aspects of life on the planet**
- **Poor water management and water shortages can lead to**
 - **disease,**
 - **malnutrition,**
 - **reduced economic growth,**
 - **social instability,**
 - **conflict, and**
 - **environmental disaster.**



USAID
FROM THE AMERICAN PEOPLE



The Water Balancing Act

Supply

- Quantity (Natural Scarcity, Groundwater Depletion)
- Quality Degradation
- Cost of Options

Demand

- Increasing in all sectors
- Inefficient use

IWRM



USAID
FROM THE AMERICAN PEOPLE



WHAT IS IWORM?



USAID
FROM THE AMERICAN PEOPLE



I.W.R.M. Definition

“A **process** that promotes the **coordinated development and management** of water, land and related resources, in order to maximize the resultant **economic and social welfare** in an **equitable way** without compromising the **sustainability of vital ecosystems**”



USAID
FROM THE AMERICAN PEOPLE

IWRM Building Blocks



- **1992 Dublin Principles- emphasizing:**
 - participatory approach to dev. and management of water
 - finite and vulnerable nature of fresh water & its essentiality to man
 - use of economic instruments to promote efficient use of water
- **1992 Agenda 21 (Rio) – stressing:**
 - integrated water resources management
 - environmental impact & sustainability of water resources projects
- **2002 WSSD (Johannesburg) – mandating:**
 - each country to develop its IWRM/water efficiency plans by 2005
 - efforts to achieve the MDGs by 2015



USAID
FROM THE AMERICAN PEOPLE



IWRM can be characterized as:

- A process, not a product
- Scale independent - applies at all levels of development
- A tool for self assessment and program evaluation
- A tool for policy, planning, and management
- A mechanism for evaluating competing demands, resource allocation, and tradeoffs



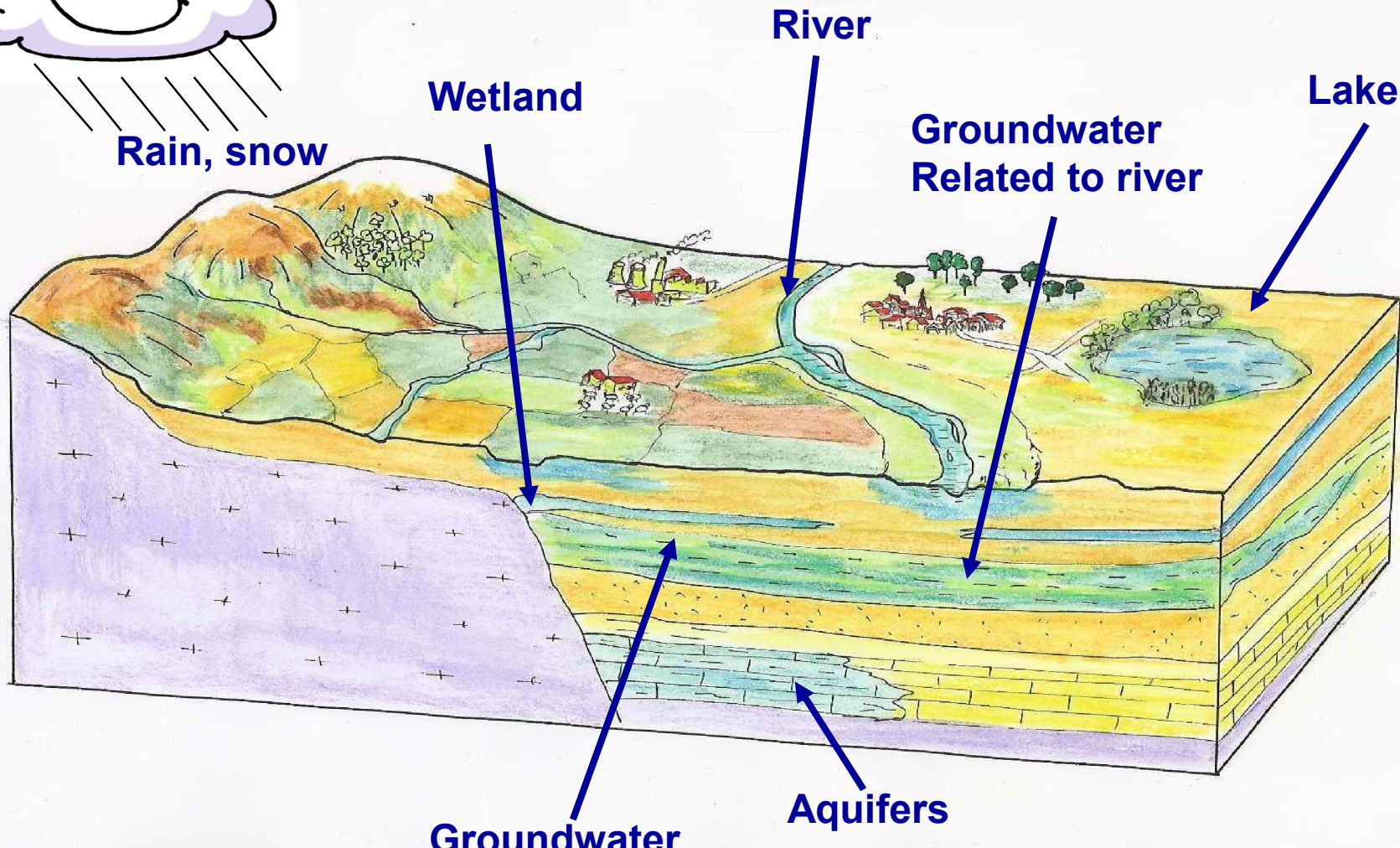
USAID

FROM THE AMERICAN PEOPLE

Many Water Resources



Rain, snow



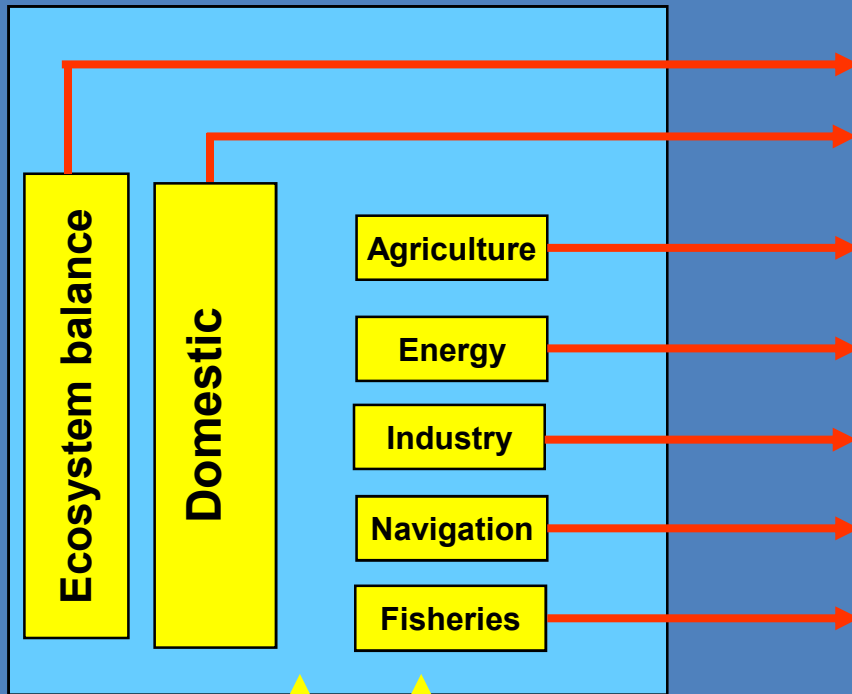


USAID
FROM THE AMERICAN PEOPLE



Many Uses & users

Consumption or support



Support for life

Domestic uses

Farming, Irrigation, Livestock

Support for power production

Industrial Processes

Support for Transportation

Support for Fishing activities

withdrawals

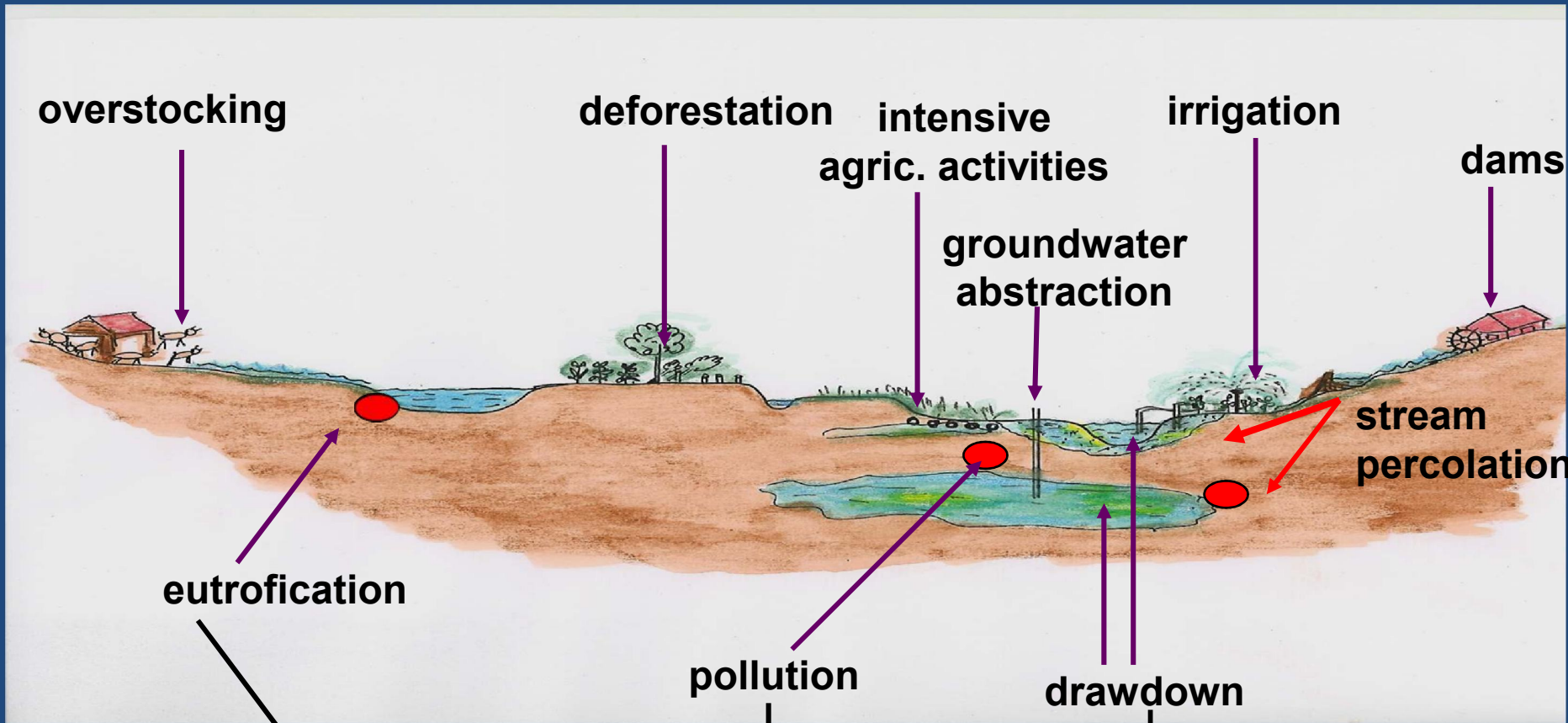
Impacts

Water Resources

Groundwater (s)

Rivers, lakes, wetlands, swamps

Integration of Land and Water Management

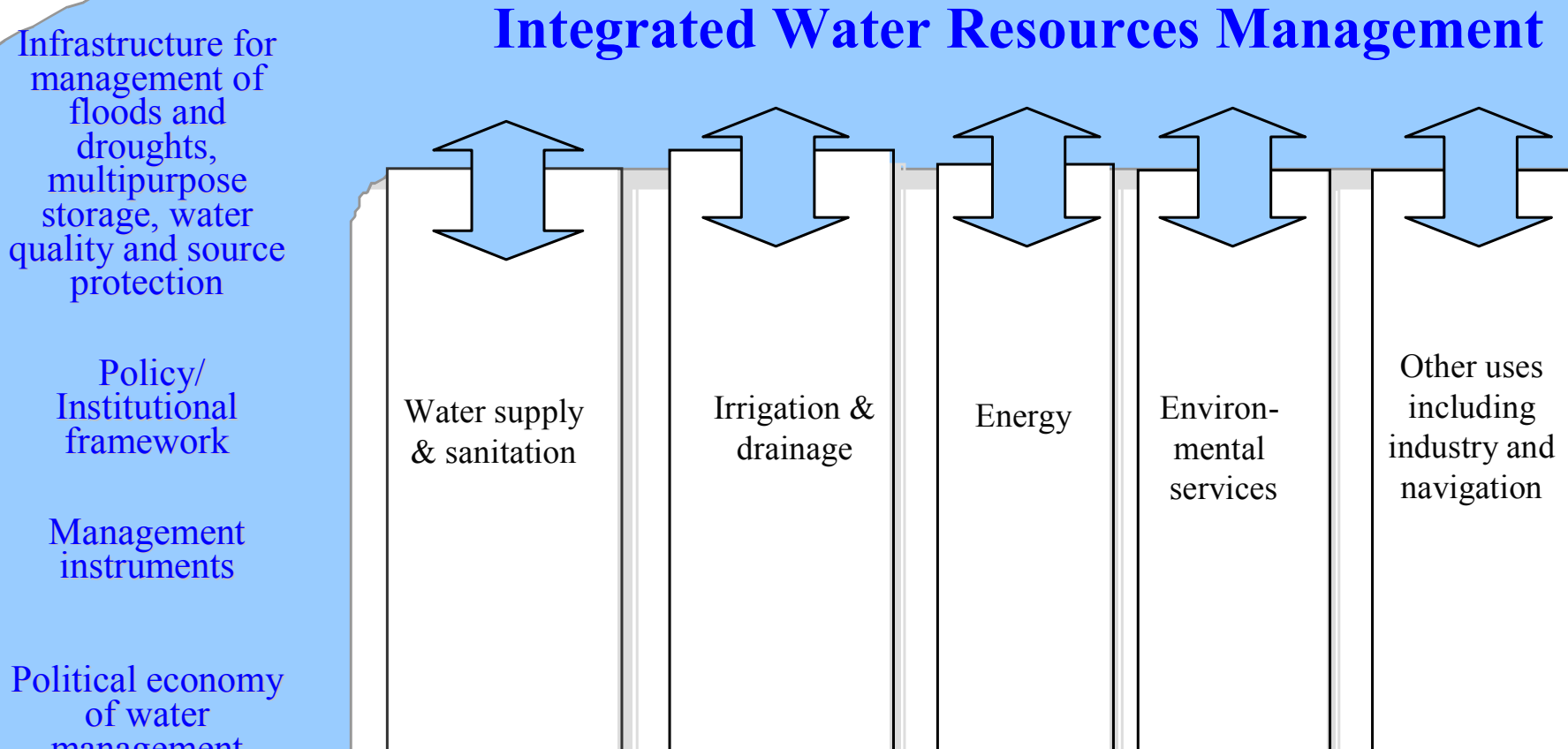




USAID
FROM THE AMERICAN PEOPLE



Dimensions of IWRM



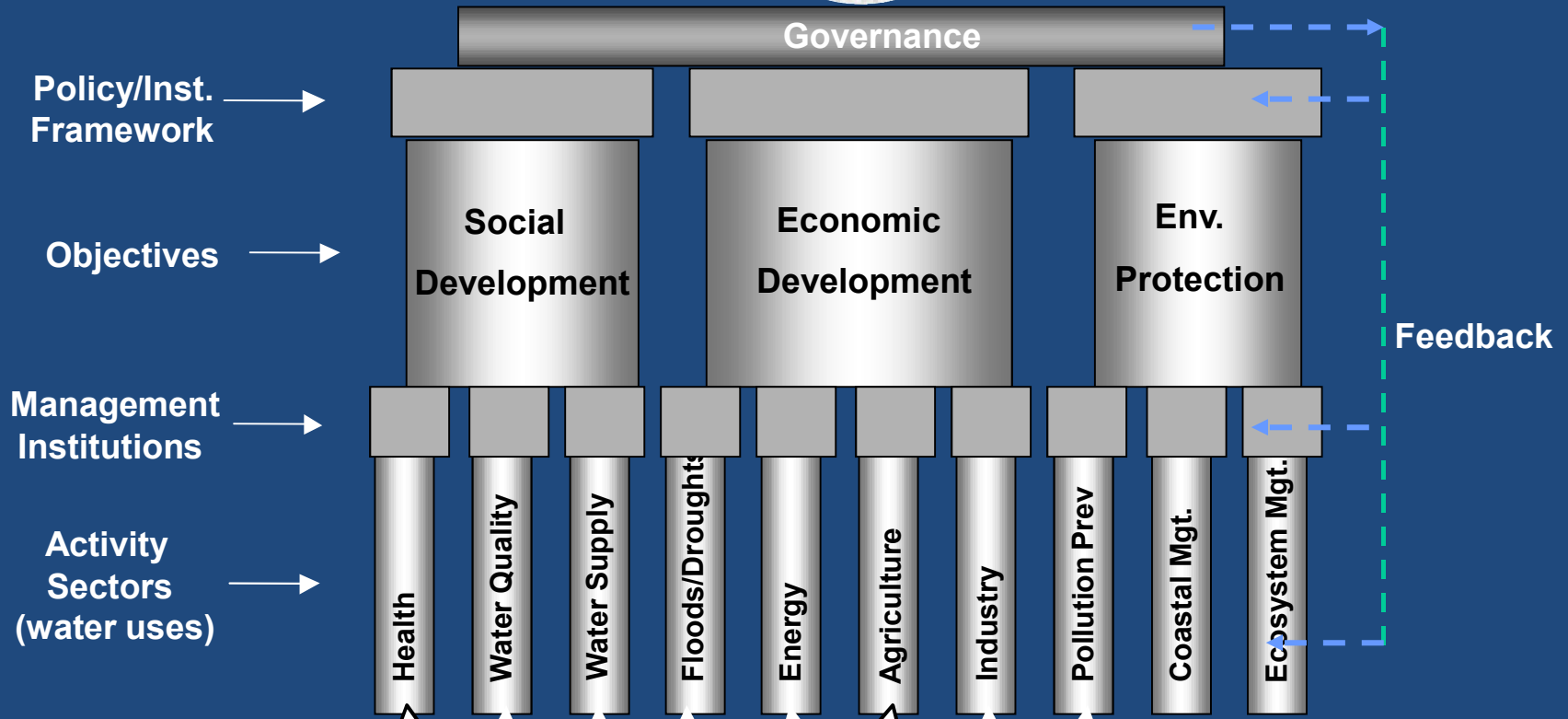
The Water Resources Development Process: Sectoral (or Use) Approach



USAID
FROM THE AMERICAN PEOPLE



Prosperity



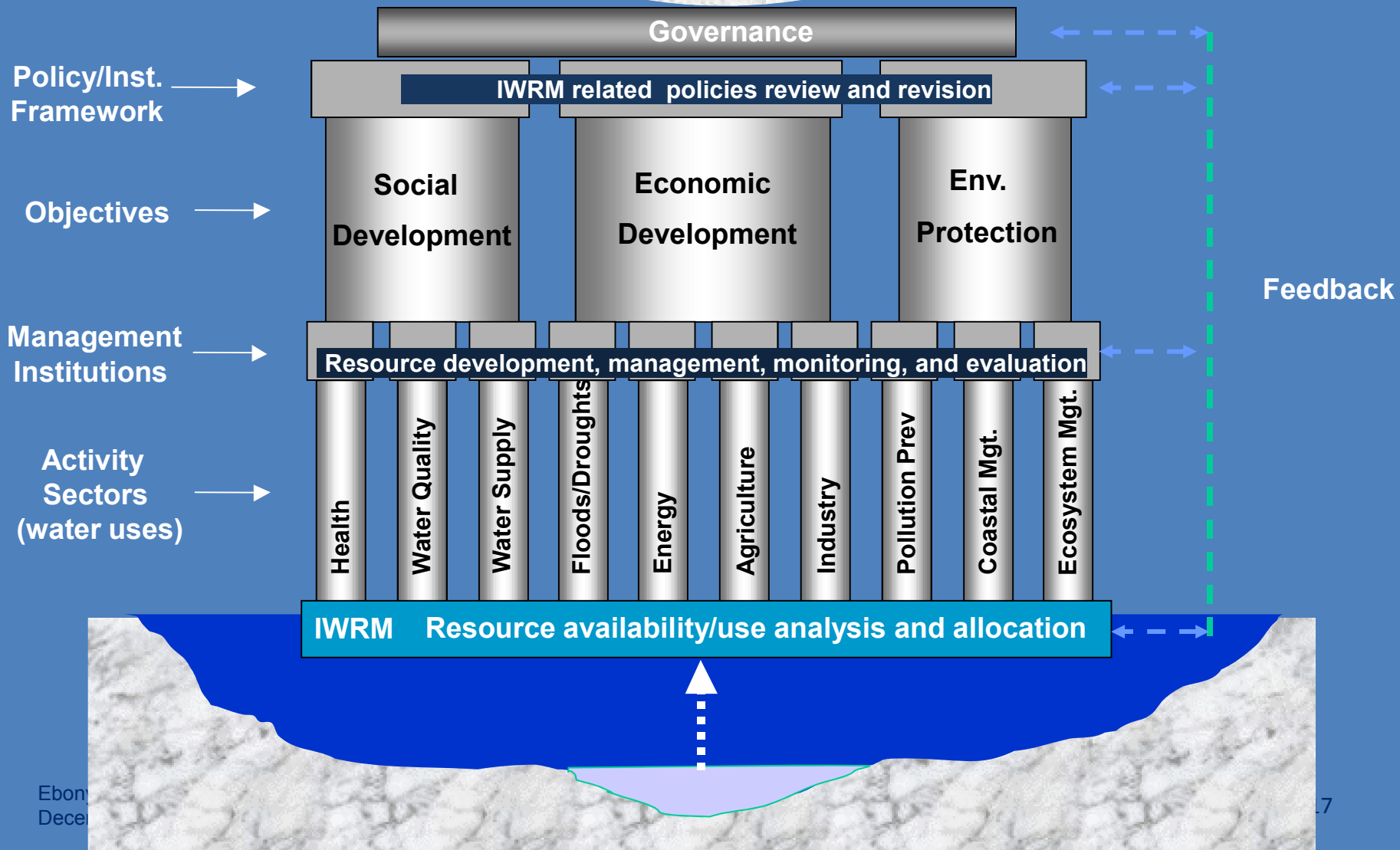
Water Resources Development : The IWRM Process



USAID
FROM THE AMERICAN PEOPLE



Prosperity





USAID
FROM THE AMERICAN PEOPLE



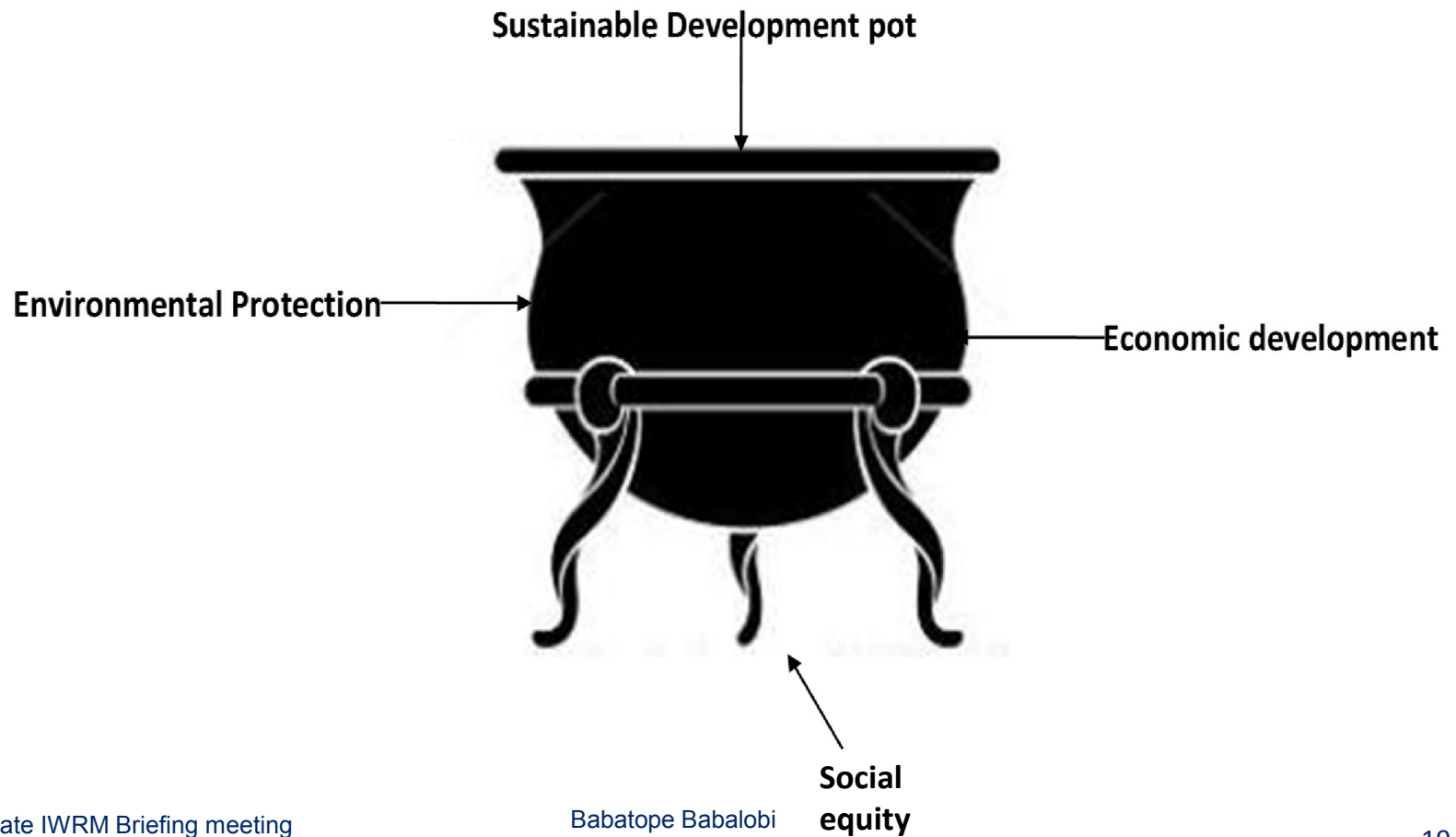
- Efficiency to make water resources go as far as possible;
- Equity, in the allocation of water across different social and economic groups;
- Environmental sustainability, to protect the water resources base and associated eco-systems.

Box 1. Water crisis - Facts

- Only 0.4% of total of global water in the world is available for humans.
- Today more than 2 billion people are affected by water shortages in over 40 countries.
- 263 river basins are shared by two or more nations.
- 2 million tonnes per day of human waste are deposited in water courses.
- Half the population of the developing world are exposed to polluted sources of water that increase disease incidence.
- 90% of natural disasters in the 1990s were water related.
- The increase in numbers of people from 6 billion to 9 billion will be the main driver of water resources management for the next 50 years.
- The increase in numbers of people from 6 billion to 9 billion will be the main driver of water resources management for the next 50 years.



USAID
FROM THE AMERICAN PEOPLE

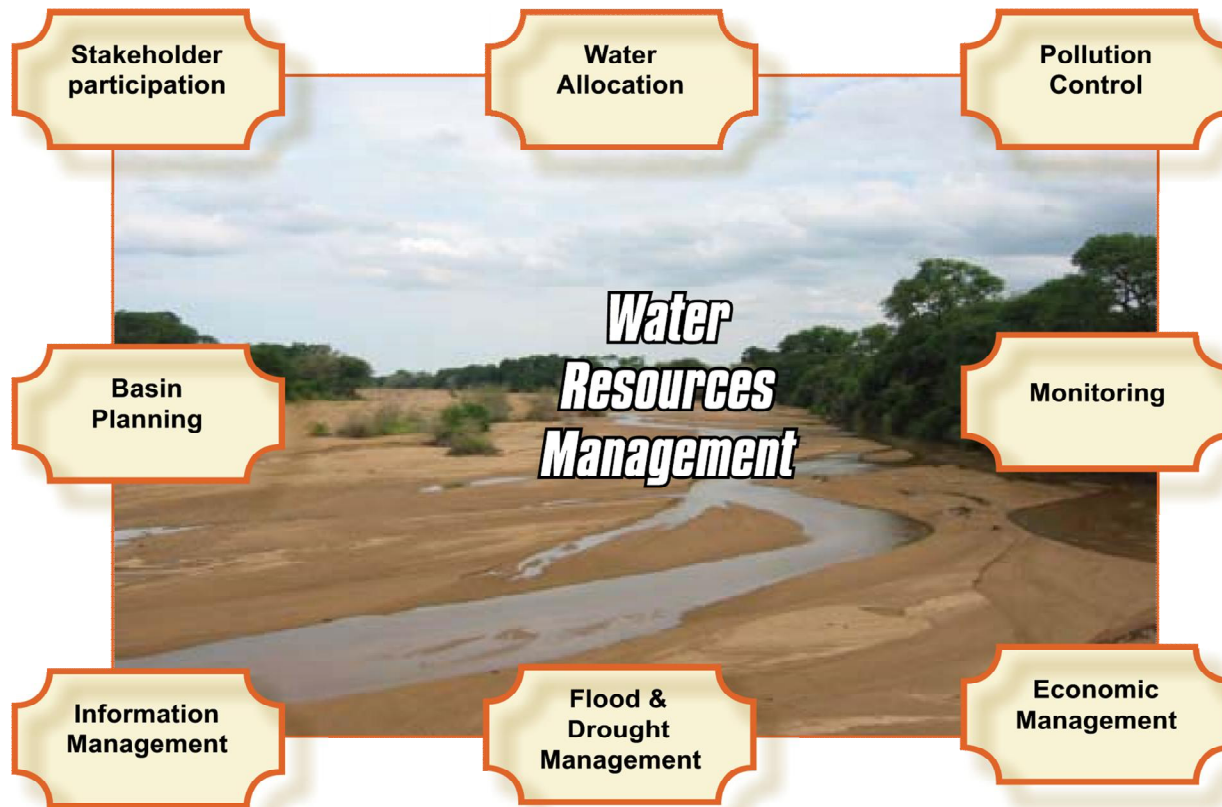




USAID
FROM THE AMERICAN PEOPLE



Basic functions for water resources management



IWRM is about governance – this is *'the range of political, social, economic and administrative systems that are in place (or need to be in place) to develop and manage water resources and the delivery of water services, at different levels of society'* [GWP Toolbox]

River Basins Development Authorities in Nigeria



S/N	Name of Authority	Area of Operation	Headquarter
1	Anambra River Basin Development	The whole of Anambra, Enugu and Ebonyi States	Enugu
2	Benin-Owena River Basin Development Authority	The whole of Edo, Ekiti, Ondo States and area of Delta State drained by the Benin, Escravos, Forcados and Ramos Rivers Creek' Systems.	Benin.
3	Chad Basin Development Authority	The whole of Borno and Yobe States and area of Adamawa State drained by the Yedseram and Goma River Systems	Maiduguri
4	Cross-River Basin Development Authority	The whole of Akwa Ibom and Cross River States	Calabar
5	Hadejia-Jama'are River Basin Development	The whole of Jigawa, and Kano States, and the area of Bauchi State drained by the Misau and Jama' are River System	Kano
6	Lower Benue River Basin Development Authority	The whole of Benue, Nasarawa and Plateau States	Makurdi
7	Niger Delta Basin Development Authority	The whole of Rivers, Bayelsa and part of Delta States	Port - Harcourt
8	Ogun-Osun River Basin Development Authority	The whole of Lagos, Ogun, Osun, and Oyo States	Abeokuta
9	Sokoto-Rima River Development Authority	The whole of Katsina, Kebbi, Sokotoand Zamfara States	Sokoto
10	Upper Benue River Basin Development Authority	The whole of Gombe and Taraba States and the area of Bauchi State drained by the Gongola River system and the whole of Adamawa excluding the area drained by the Yedseram River system	Yola
11	Lower Niger River Basin Development Authority	The whole of Kwara and Kogi States	Ilorin
12	Upper Niger River Basin Development Authority	The whole of Niger, Kaduna states and the Federal Capital Territory	Minna
13	Imo River Basin Development Authority	The whole of Abia and Imo States	Owerri





USAID
FROM THE AMERICAN PEOPLE



IMPLEMENTING IWRM IN EBONYI STATE



USAID
FROM THE AMERICAN PEOPLE



Ebonyi State Geology

98% of the State is underlain by the sedimentary formations of shale's (Esu River Groups); with outcrops of other rock formations and igneous rocks. The State has both tableland and hilly/valley terrains.



USAID
FROM THE AMERICAN PEOPLE



Ebonyi State Hydrology

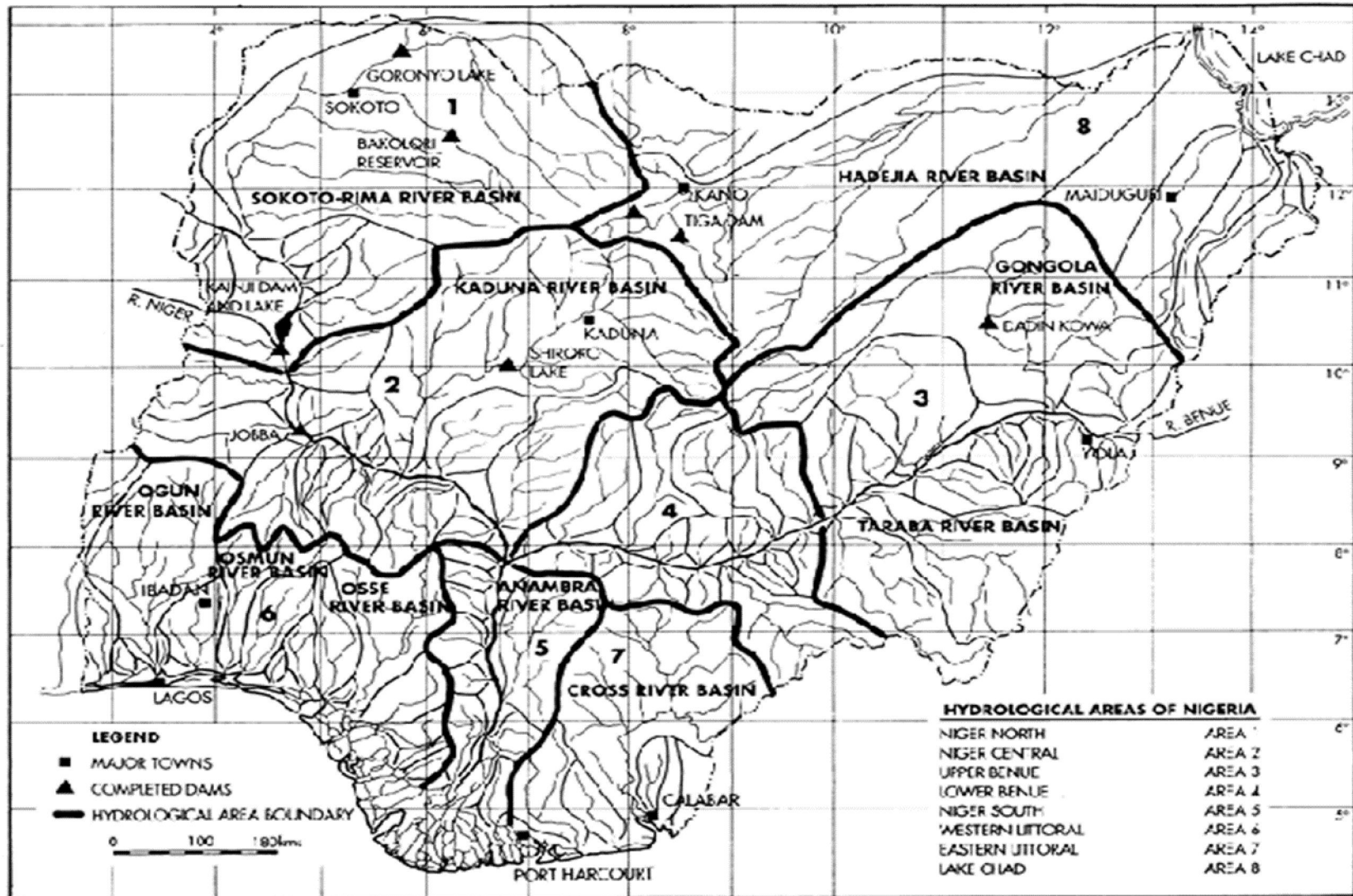
- The State derived its name from Ebonyi River that cuts across the state. Other major rivers in the state are Ebonyi, Esu, Ezi-iyieku, Etui, and Akpoha Etsu in the North and Central Senatorial districts; , Esa, and Ubeyi in the South Senatorial districts; and Cross River which borders parts of Ikwo, Unwana, and Afikpo North LGAs



USAID

FROM THE AMERICAN PEOPLE

River basins in Nigeria





USAID
FROM THE AMERICAN PEOPLE



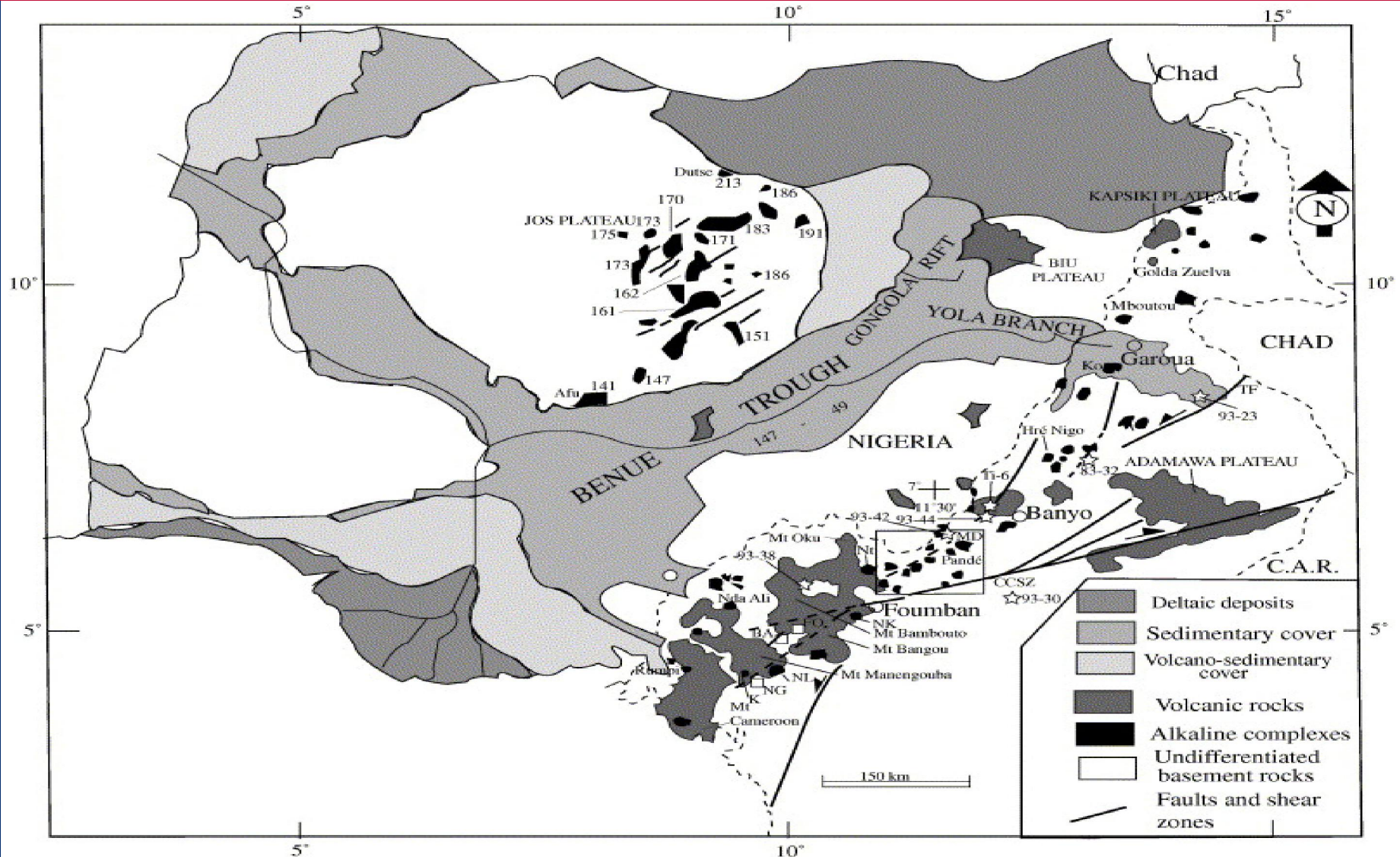
Ebonyi State Hydrogeology

- Ebonyi state belongs to the Southeastern hydrological zone comprising Cretaceous sediments in the Anambra and Cross River basins. The borehole yields are generally low due to the presence of mudstones, consolidated Asu River shales and silt stones.
- The groundwater in Ebonyi state is generally hard due to the presence of calcium carbonates especially in Limestone deposit areas. Other harmful mineral deposits present in Aquifers within the State are Lead, Zinc, Arsenic and Fluoride..



USAID
FROM THE AMERICAN PEOPLE

Nigeria's geological formations





USAID
FROM THE AMERICAN PEOPLE



IWRM ACTION PLAN FOR EBONYI STATE



USAID
FROM THE AMERICAN PEOPLE



Identify the Stakeholders

1. Civil society-Consumers, NGOs, CBOs, Trade unions, Labour, media, Ebonyi WASH Forum, National Water Supply Association
2. Service providers-formal (public utilities) and informal (water vendors, farmers with water from private wells)
3. Policy formulation and Coordinating bodies-MPU, other water related MDAs
4. Private sector- Banks-Micro financing
5. Regulatory bodies
6. Imo/Anambra and Cross River River Basin Development Authorities
7. External support agencies-USAID, UNICEF
8. Legislators



USAID
FROM THE AMERICAN PEOPLE



Establish an IWRM Committee

Ebonyi State IWRM Committee (excerpts from the Ebonyi State Draft WASH policy)

This shall be an Inter-Ministerial Committee of all relevant MDAs to handle water resources management issues such as water for domestic, industrial, agriculture, and recreation/tourism, purposes.

- Develop a framework for the allocation of water rights among all users.
- Coordinate raw water demand and supply among all users in Ebonyi state.
- Monitor and prevent point and non-point sources of water pollution in Ebonyi state.



USAID
FROM THE AMERICAN PEOPLE



Membership

Membership

1. Ministry of Public Utilities- Host
2. Ministry of Health
3. Ministry of Local Government, Chieftaincy Affairs, and Rural Development
4. Ministry of Women Affairs
5. Ebonyi State Water Corporation
6. Ebonyi State Rural Water Supply and Sanitation Agency
7. Ebonyi State Environmental Protection Agency
8. Ministry of Agriculture
9. Ministry of Environment
10. Anambra/Imo River Basin Development Authority
11. Meteorological Agency, Abakaliki office
12. Chamber of Commerce and Industries, Ebonyi State Chapter
13. Manufacturers Association of Nigeria, Ebonyi State Chapter
14. Civil Society Organisation

