



REPUBLIC OF ZAMBIA
MINISTRY OF ENERGY AND WATER
DEVELOPMENT



Zambia Water Partnership

Integrating IWRM in Zambia's Fifth National Development Plan

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FORMAT OF PRESENTATION

1. INTRODUCTION

2. WHY Integration of IWRM in National Development Process

3. Integration of IWRM in 5th NDP: The Process, Challenges and opportunities

1. INTRODUCTION

Government of the Republic of Zambia saw the need to reform the Water Sector starting in the 1980s due to poor performance of institutions charged with water service delivery.

In WR for example, the principal Water Act governing the management of water resources dates from 1948 and fails to address key modern day issues such as the use and protection of groundwater, shared international waters, or customary law.

Zambia saw need move from Sectorial

productive water

awareness

water harvesting

health education

land use planning

fisheries

catchment protection

safe drinking water

agriculture

soil & water conservation

environment

industry

hydro-power

forestry

animal husbandry

water for sanitation



Managing the situation
at Catchment Level

“we all live downstream”

Therefore, in 1998, government decided to establish the WRAP as a reform programme aimed at supporting the National Water Policy (1994) by developing a comprehensive legal and institutional framework for the use, development and management of water resources in a sustainable manner.

This programme started in 2001.

At the same time, during the Johannesburg Summit on Sustainable Development in 2002, it was agreed that countries should prepare National IWRM / WE Plans by 2005.

As a result, in 2004, the Zambian Government, through MEWD, with facilitation by the ZWP, a Zambian chapter of GWP and GWP-SA, Partnership for Africa Water Development (PAWD) started developing IWRM / WE Plan for sustainable management of the country's water resources.

During PAWD-IWRM process (2004 -2006), the Government of Zambia was also developing its Fifth National Development (FNDP) Plan (2006-2010).

The overriding goal was therefore how to link the PAWD to the 5th NDP (2006-2010).

- 1. WHY Integration of IWRM in National Development Plan**

Linking IWRM /WE plans to 5th NDP is fundamental to achieving the following:

1. Zambia's Overall Planning Document

- Up to 1989, Zambia has had four National Development Plans
- The Poverty Reduction Strategy Paper (2002-2004)
- The Transitional National Development Plan (2002-2005)
- Government did not move to second generation PRSP but prepared the fifth NDP
- Thus Government embarked on the preparation of the fifth National Development Plan, District Plans and Vision 2030.
- This was done using the bottom up and top down approaches.

- **STAKEHOLDERS** made submissions through Secretariat (Dept. of Planning MEWD or Consultant
- **CONSULTANT** drafts the paper and presented to **WATER SECTOR ADVISORY GROUP (WSAG)** - highest body to approve the Chapter.
- **WSAG** consists of Public, Private and Civil Sector e.g. Civil Sector formed a working group that produced their own Chapter

FOCUS OF THE NATIONAL DEVELOPMENT PLAN

- The Focus was on wealth creation with the ultimate objective of creating employment and reducing poverty.
- In this regard, priority was on the **economic sectors** of Agriculture, Tourism, Mining, Manufacturing, Energy, Trade and Transport and Communication
- Other areas of focus were the **Social Sectors**, Administrative, Public Safety and Regional Development

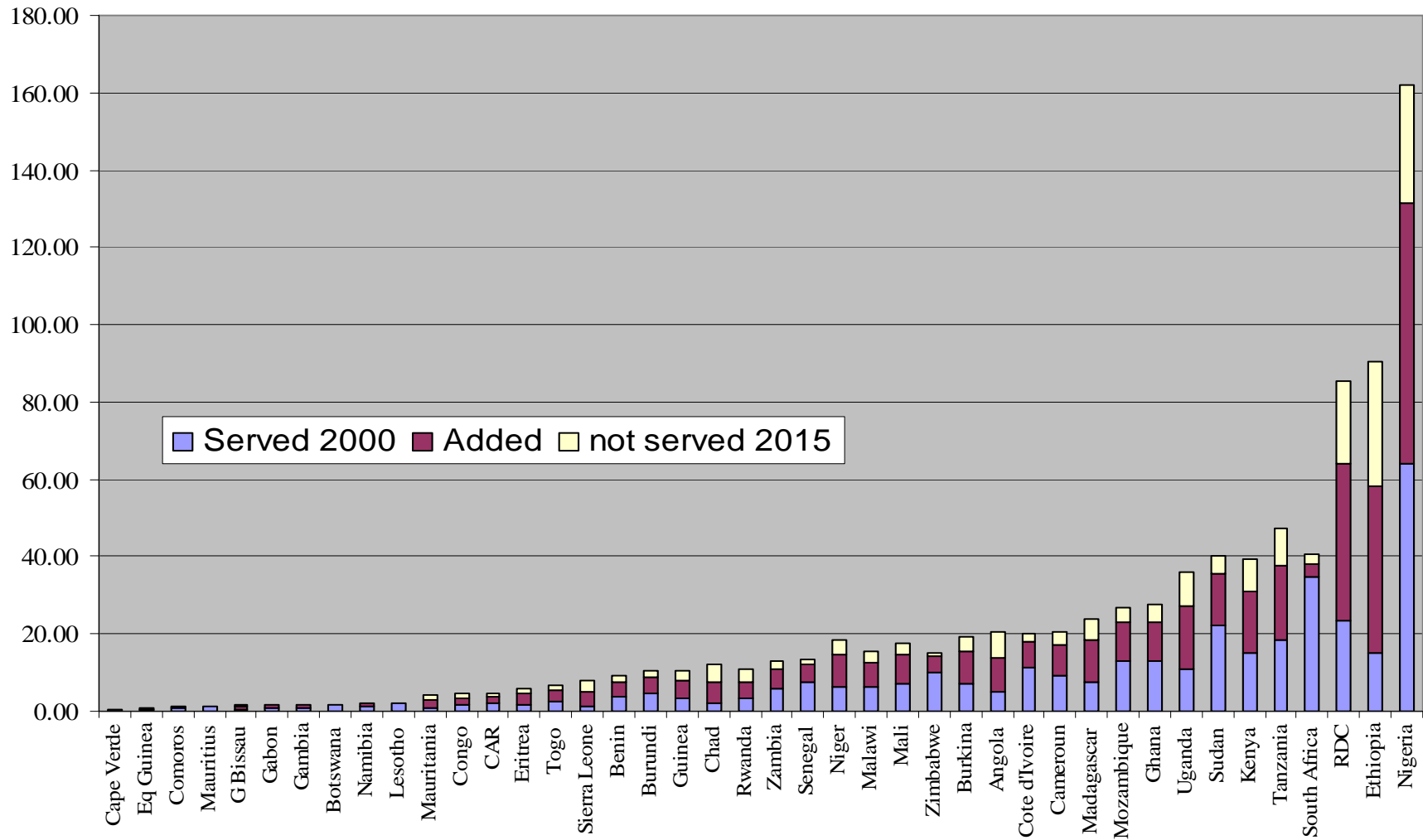
2. MDGs related to social and economic development, as well as those more directly related to domestic water and sanitation services and environmental sustainability.

Water at the Heart of the MDGs

MDG # 1	Eradicate extreme poverty and hunger (irrigation and water security)
# 2	Achieve universal primary education (WSS services, school sanitation)
# 3	Promote gender quality and empower women (WSS services)
# 4 and 5	Reduce child mortality and improve maternal health (WSS services, hygiene)
# 6	Combat HIV/AIDS, malaria and other diseases (hygiene, environmental health)
# 7	Ensure environmental sustainability (IWRM, water security, eco-systems conservation)

Diversity of Challenge in Africa

Population in millions



HOW DID WE DO IT

Integrating IWRM in 5th NDP: Process, CHALLENGES AND OPPORTUNITIES

1. Stakeholder Meetings of December 16, 2004 & January 8, 2005 reviewed Status of IWRM in Zambia (Situation Analysis)
2. PUTTING in place PMT, PAWD Core TEAM, + Appointment of PM

TO MEET CHALLENGE OF FEEDING IN to 5th NDP

1. STARTED to Work on components of PAWD WORK PLAN
 - IWRM/WE PLAN (STRATEGY) - MOST IMPORTANT
2. Consultation on water resources challenges and issues in the DRAFT IWRM Plan NATIONAL STAKEHOLDER CONSULTATION - 30th AUG, 2005
3. WSAG WORKSHOPS of 5th NDP debate on Water Chapter & its Programmes

In order to link IWRM to the 5th National Development Plan, the discussion document on IWRM /WE plan developed was presented to the Consultants writing various chapters of the FNDP under the MoFNP -

A key target was to convince and get a buy in from government that IWRM can be a driver of economic and social development.

TITLE: *Make Water an Engine of Economic and Social Development in 5th NDP*

- **CHALLENGES:** Many e.g.
How to integrate the various submissions from various stakeholders

- **OPPORTUNITIES:**

Capitalised on the Costed Programmes in IWRM /WE Plan by PAWD

Focused presentations on water input to economic and social development following Government's priority areas of economic and social development - using tangible examples - **SELLING IWRM**
Consultants on 5th NDP & other stakeholders

Provide water for Food Security - national / regional level (Agriculture Sector)

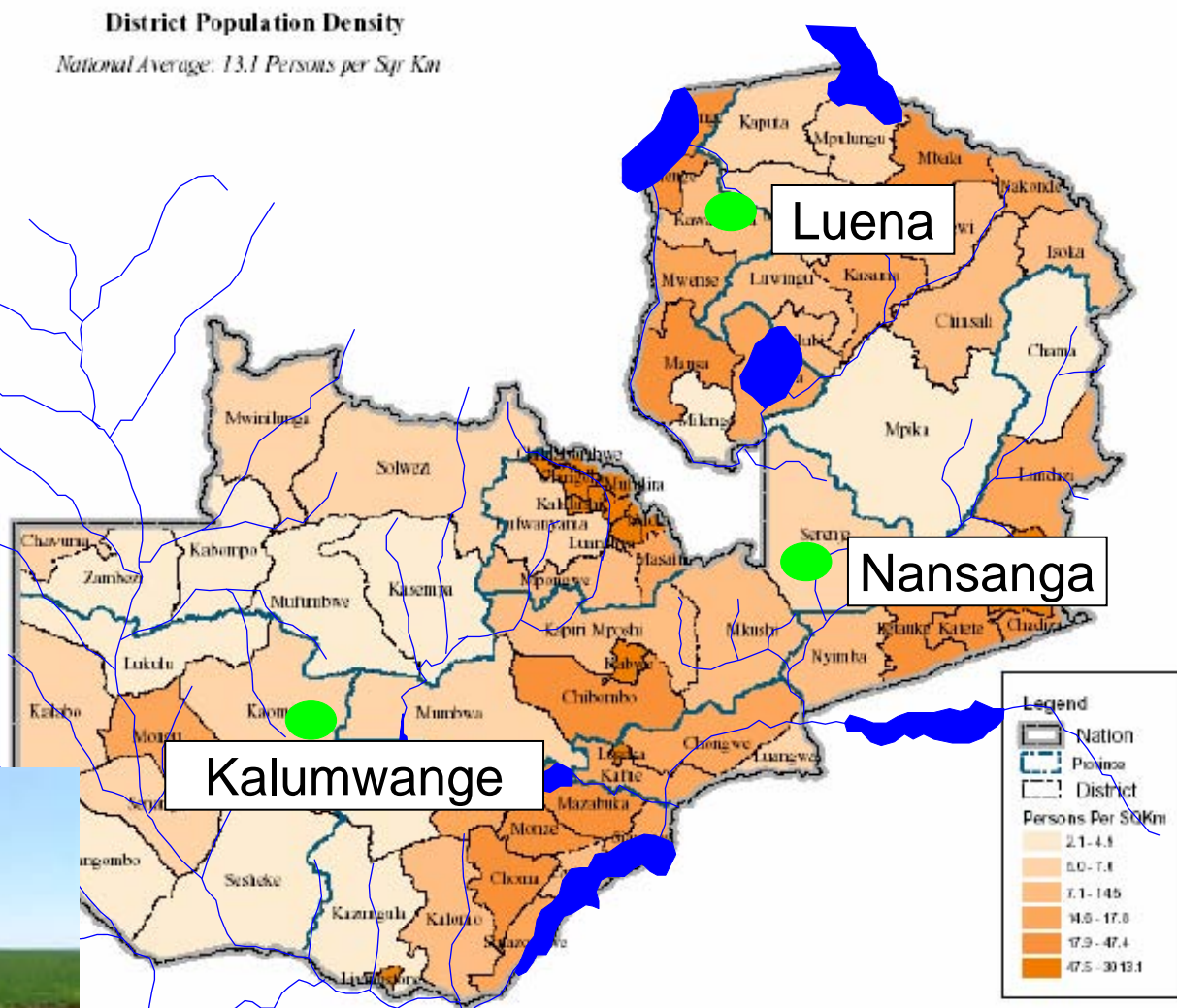
Need to develop & manage resources e.g.

- 9 proposed farming blocks
- Rural Re-settlement Schemes

Floricultural and horticultural products mainly from Irrigated agriculture generated \$51.1 million in 2003



National Food Security



NIP whose focus is to make Zambia's agriculture depended on water and not rain. ONLY THEN COULD WE STOP IMPORTING MAIZE e.g. 200 MT?

Irrigation is key - Why

1. About 80% of the Zambian population live under abject poverty

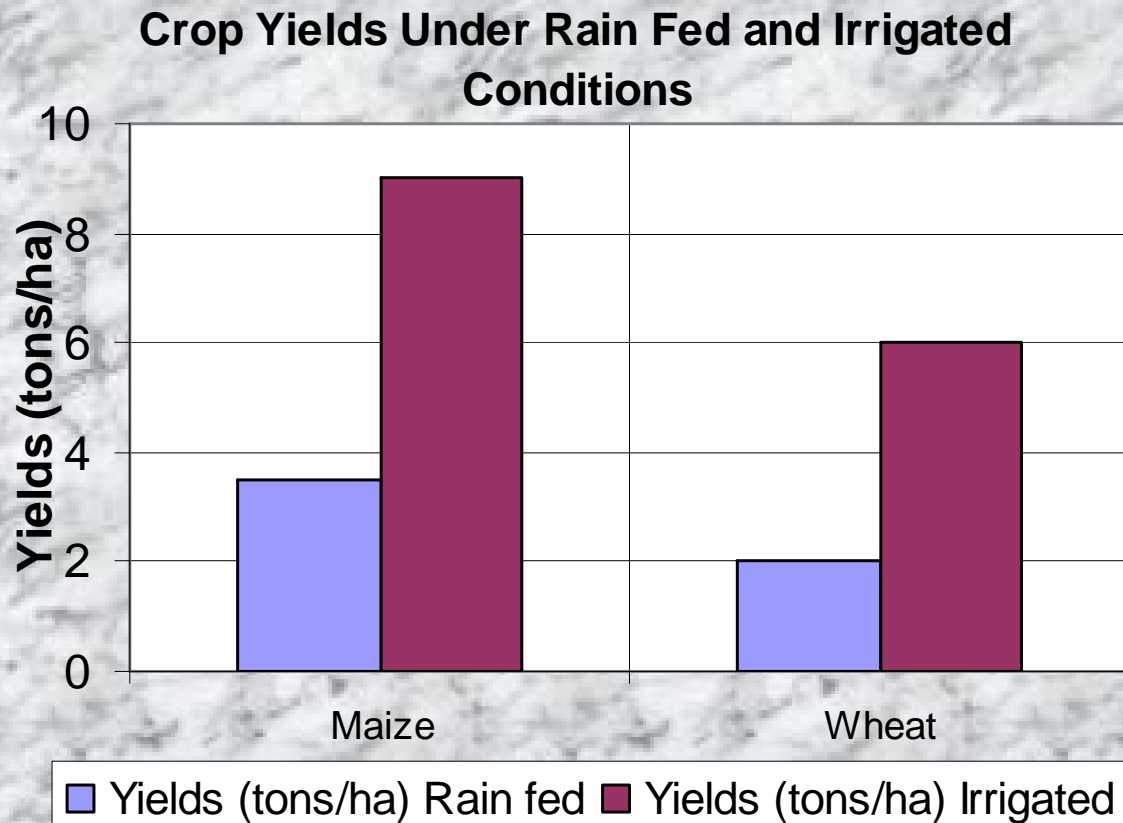
2. Irrigation Provides Women With Opportunity to generate income

3. Creates employment particularly for young people who work in gardens



Courtesy: George Phiri

4. Irrigation Increases crop yields

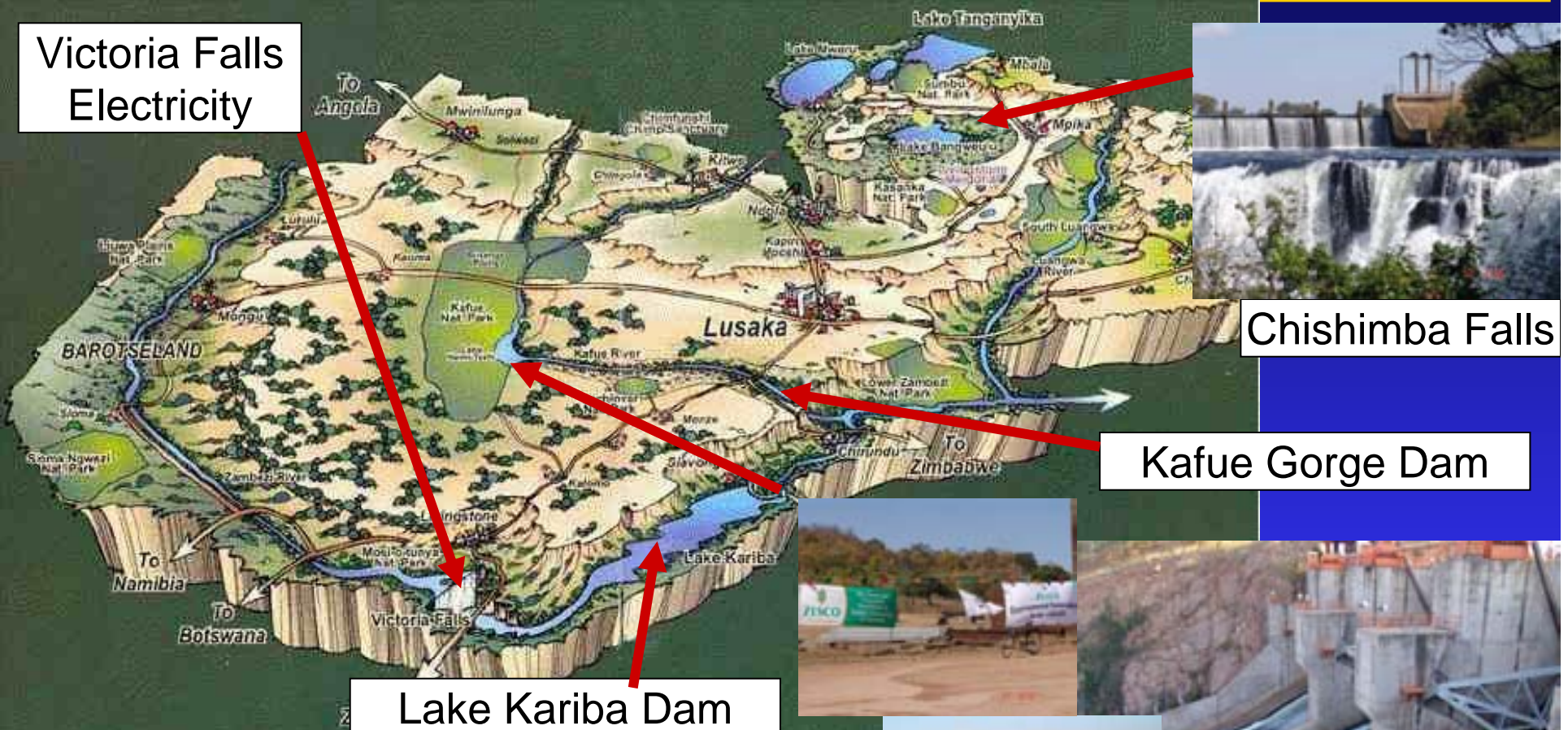


- Zambia's irrigation potential is 2.75 million ha
- 523,000 ha can be economically developed
- Currently 155,912 ha of land are irrigated
- 88% of area draws its water from surface water & 12 percent from groundwater

Courtesy: George Phiri

Provide water industrial growth for wealth creation & poverty reduction (Energy - using 42% of resource)

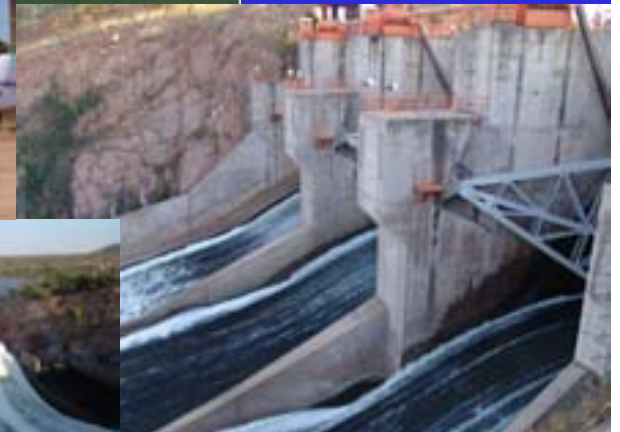
Victoria Falls Electricity



Chishimba Falls

Kafue Gorge Dam

Lake Kariba Dam



Hydro-electricity – Itezhi-tezhi Dam

In 1994, ZESCO was generating US\$2 million per month through Exports. In 2003, 8.2 million in a year

How much of this goes to Resource Dev & Mgt?

3. ENERGY

- The total installed capacity in Zambia is 1,670MW with Zambezi River Basin hosting about 90% of the power stations.
- This capacity is expected to be exceeded in the coming 3 years. **NEED** for more power stations.

- Kafue Gorge Power station (900MW), Kafue gorge reservoir and Itezhi-tezhi reservoir.

- Victoria Falls Power Station (108MW)

- Lusiwasi Power Station (12 MW)

- Kariba hydroelectric power system which supports the Kariba North(700 MW) and South (660 MW) Power stations



Proposed power stations

- The Kafue Gorge lower power station (750 MW) to be located immediately downstream of the Kafue Gorge power station
- Kariba North Bank Extension (360MW)
- Batoka Gorge (800 MW)
- Devil's Gorge (800 MW)
- Lusiwasi Extension (40 MW)



Itezhi-tezhi power station (120MW) to be located at the Itezhi-tezhi dam

TOTAL (2,870 MW)

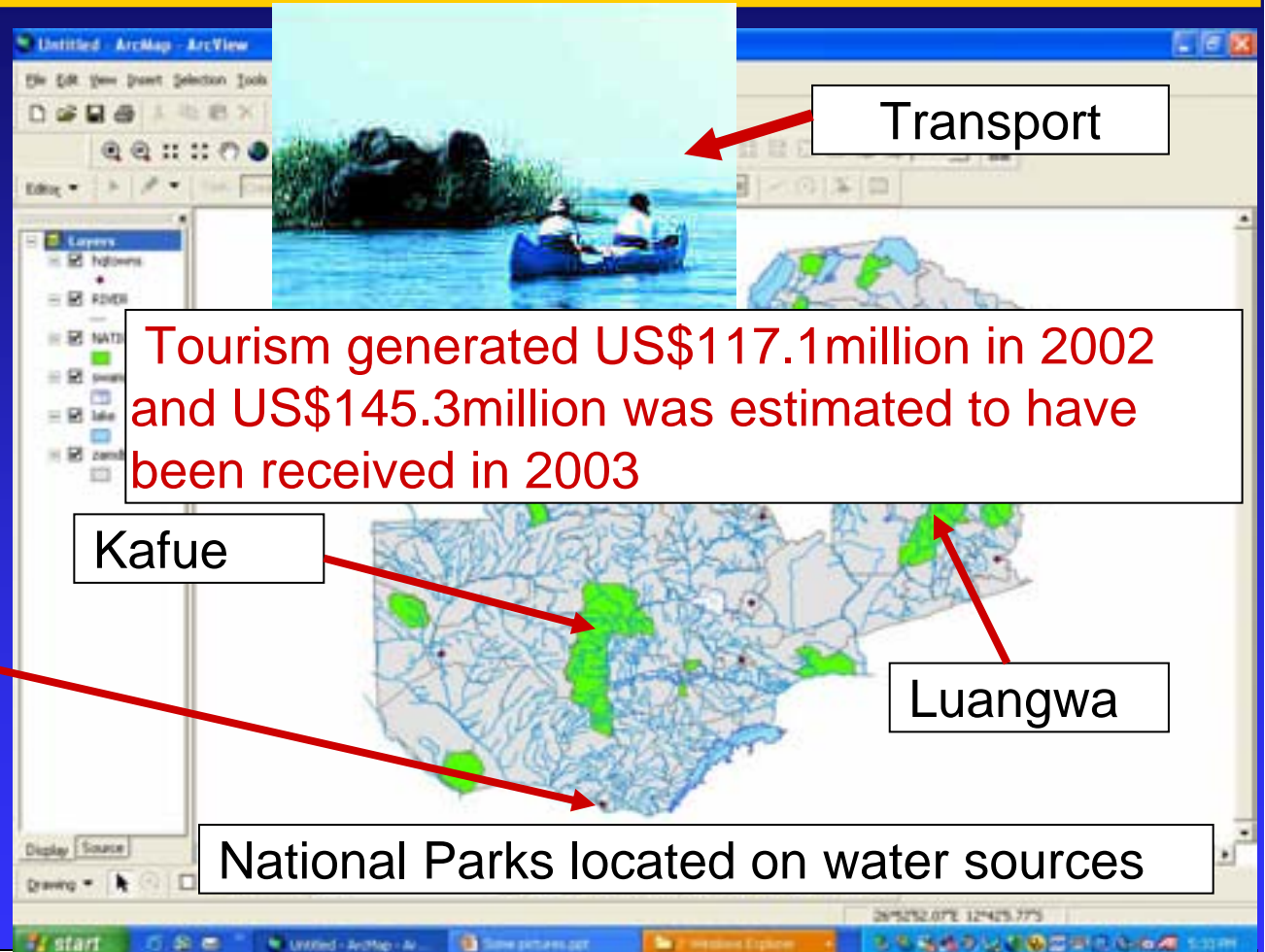
1. Provide water for Sustainability of aquatic systems to deliver ecosystem goods and services (Tourism, Environment, Transport sectors)



Eco-Tourism Development – Victoria Falls



Conservation



LOCATION of National Parks, for example are all along rivers. ZAWA for example should contribute to the management of the water resource

Provide water industrial growth for wealth creation & poverty reduction (Mining & Manufacturing etc)



Mining



Manufacturing

Water demand for operations in the mining and manufacturing sector in 1990 was estimated at 529,000m³/day broken down as 307,000m³/day for mining and 222,000m³/day for manufacturing.

Projected to increase to 367,000 m³/day in the year 2005 and 446,000m³/day in 2015 in manufacturing .

This water resource used in mining for example, was a key ingredient to mining's contribution to GRZ Treasury of US\$32 million in 2003 and US\$75 million in 2004.

**SHOULD NOT FORGET TO
INCORPORATE !!!!**

Key Rural Community Issues



Subsistence Agriculture



**Access to
Resources**



Water Supply

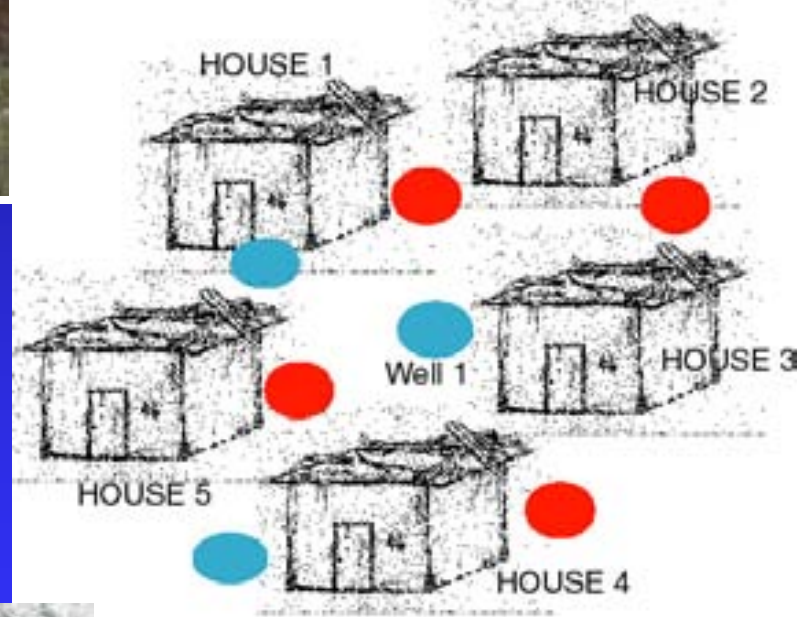


Sanitation Systems

Threats to Quality comes from wastewater discharges, agriculture, deforestation, industry and mining e.g GW Quality in Kanyama Township - Shallow Wells



WDM ZAMBIA STUDY - RESULTS



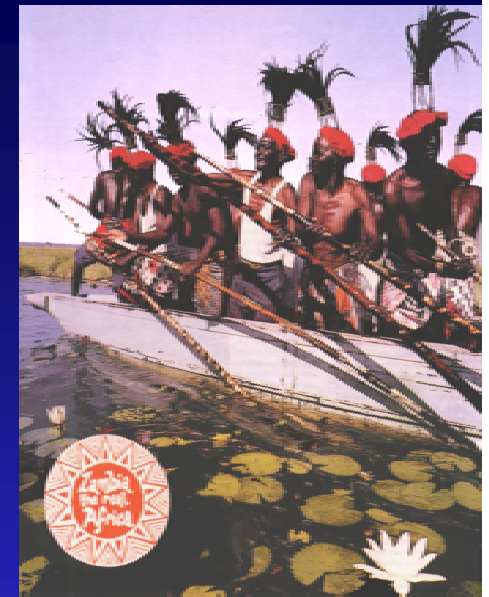
KEY

● Toilet

● Shallow Well



Kuomboka Ceremony in Barotse Floodplain.



**Floodplains as preventers of flooding downstream.
Economic function of holding rainwater**

BF is a producer of Rice



Accounts for over US\$30,000 in food and hotel accommodation for 3 days in a year.

Examples of Cost from Treating Cholera Patients - Money Spent on unbudgeted for Health Costs

- Lusaka District had treated 739 Cholera cases last year 2004
- The average hospitalization length for 1 patient for rehydration and treatment was 5 days
- The cost to treat one cholera patient successfully is US\$450 for 5 days including staff overtime
- For 739 patients X US\$450 = US\$332,550



IDENTIFICATION & VALIDATION OF PRIORITY ISSUES

ACTION PLAN & Costed Programmes discussed



By Sandra Lombe

ZAMBIA Water Partnership (ZWP) has called on the government to integrate water in national developmental programmes to help alleviate poverty.

And water resource consultant (WRC) Fleener Linn said there was need for the country to improve water quality and management.

In an interview yesterday after he presented a paper at a preliminary stakeholders consultation for Integrated Water Management/Water Efficiency (IWRM/WE) plan for Zambia meeting, ZWP acting chairman Professor Imasiku Nyambe said despite water being vital for human life it had not been included in the national developmental programmes.

Govt urged to include water in developmental programmes

He hoped the resolutions from the meeting would be included in the 5th national development plan.

"Water issues in development have not been included. Government has placed agriculture as a priority area but has left out water. Agriculture has been dependent on rain and in drought times the country suffers. There is need to include

water as an input in agriculture and food shortage would be a thing of the past," he said.

Prof Nyambe observed that water had only been considered in the social sector and had been taken for granted.

"That is why things are wrong, water is also an economic input. There is need to develop water resources," Prof Nyambe said.

He said the government only moved in to address water issues when there was a critical shortage and an outbreak of water borne diseases.

"Instead of building more hospitals and diverting developmental money to treating cholera, government can work to improve the quality of water and accessibility," he said.

He also said water was cardi-

nal in the Visit Zambia Campaign.

Prof Nyambe commended Canadian International Development Agency (CIDA) for giving ZWP about US \$500,000 for the development of integrated water resources.

And Linn said water management needed concerted efforts from all stakeholders and should not be left to the

Ministry of Energy and Water Development alone.

He urged the government to prioritise water issues and enhance water accessibility.

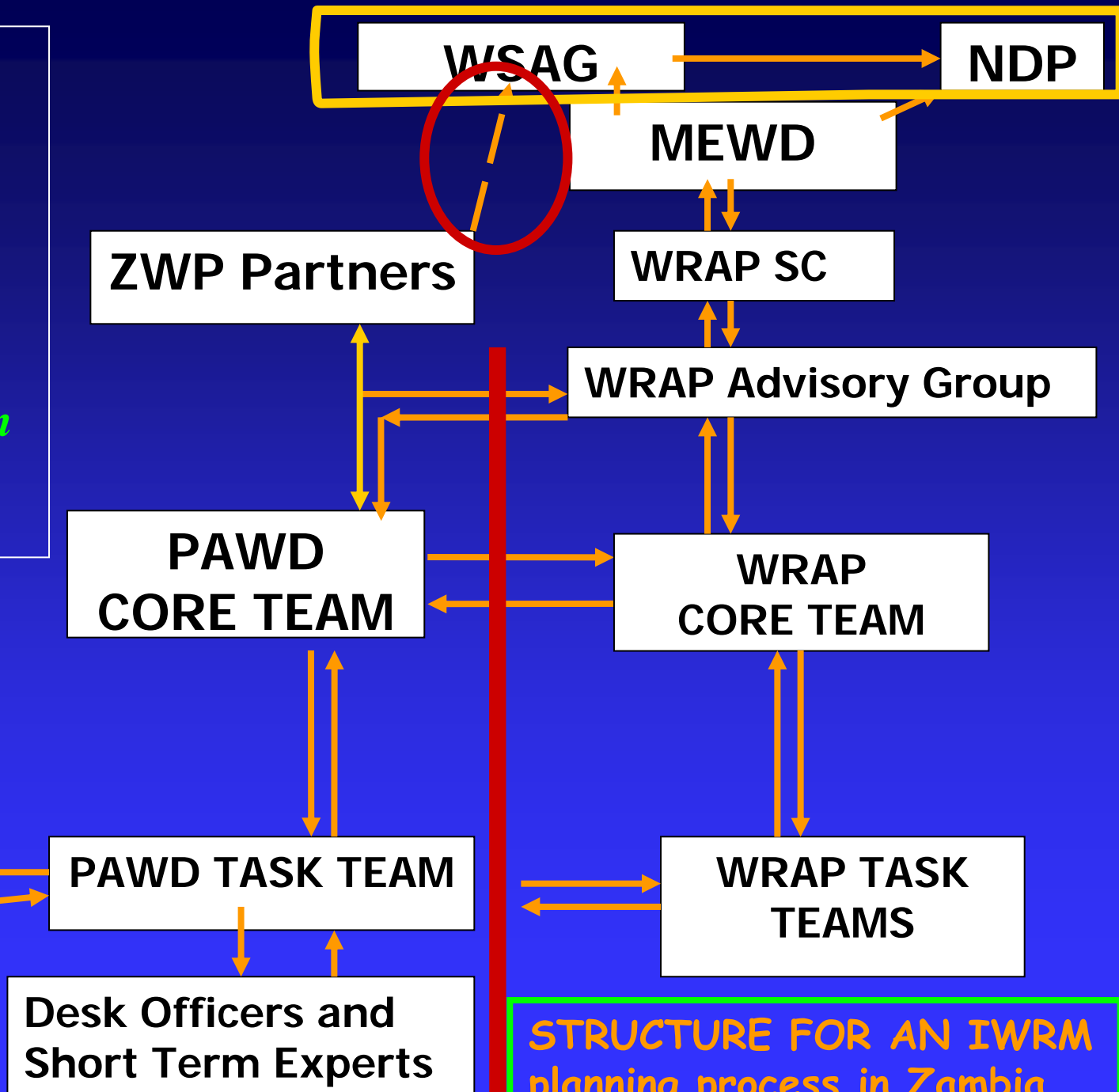
Linn said water played an important role in poverty reduction.

Linn also said small-scale farmers should be assisted to utilise water for the benefit of the nation.

The updated proposed programmes in the discussion Document were later submitted through the DWA in the MEWD, for onward inclusion in the Water and Sanitation Chapter discussed through the WSAG, a Government led highest forum which helps to harmonise policy and programme implementation and improve sector coordination mechanism.

- **Government** - Owner of the process
- **Zambia Water Partnership** - Facilitator
- **Host Institution** - Financial Management

MULTI-STAKEHOLDER FORUMS For Development of IWRM /WE PLAN - ZWP



STRUCTURE FOR AN IWRM planning process in Zambia

Through this process, the submitted programme from the IWRM / WE Plan discussion Document were included and became part of the seven IWRM Core Programmes and related poverty programs which are in the Fifth National Development Plan (FNDP) 2006-2010 launched by the Republican President in November, 2006.

- Zambia's FINAL DRAFT 5th NATIONAL DEVELOPMENT PLAN (2006-2010) was born:

Under the Banner of "Broad based wealth and Job Creation Through Citizenry Participation and Technology Advancement as its THEME

- AIMS to target in the next five years both wealth creation and poverty reduction
- WATER VISION. A Zambia where all users have access to water and utilise it in an efficient and sustainable manner for wealth creation and improved livelihood.

Sector: Water and Sanitation

No.	Programmes	Objectives	GRAND TOTAL (K'Billions) 2006-2010		
			Total	GRZ	Donor
1	Water Resource Development and Infrastructure Development	To assess, develop, and allocate water resources in the four priority pillars of economic development of agriculture, tourism, environment, mining, manufacturing and energy	125.05	84.75	40.30
2	Institutional Capacity Building and Enhancement	To promote legal and institutional framework capacity enhancement	41.75	26.42	15.33
3	Water Resource Management and Information Systems	To develop management information systems for planning, development, allocation and management of water resources at catchment, national and regional level and to provide safe water and improve coverage in Zambia	31.00	20.94	10.06
4	Water Resource Assessment Programme	To assess surface and groundwater resources country-wide in order to determine the quantity and quality of available water	24.07	14.14	9.93

Sector: Water and Sanitation (Cntd.)

No.	Programmes	Objectives	GRAND TOTAL (K'Billions) 2006-2010		
			Total	GRZ	Donor
5	International Waters	To manage and develop shared water resources	8.48	4.94	3.54
6	Research and Development	To carry out research and development in selected areas in the country for improved planning, regulation and allocation of Zambia's water resources	7.52	5.06	2.46
7	Mainstreaming Cross-Cutting Issues: HIV/AIDS, Gender and Environment	To implement measures in the sector which enhance mainstreaming of crosscutting issues	1.26	0.83	0.43
8	Monitoring and Evaluation	To monitor and evaluate the proposed programmes in order to achieve the desired impacts	6.30	3.90	2.40
9	Urban Water Supply and Sanitation	To provide adequate, safe, and cost-effective water supply and sanitation services	247.6	26.2	221.4
10	Rural Water Supply and Sanitation	To provide adequate, safe and cost-effective water supply and sanitation services with due regard to environmental issues	292.6	25.2	267.4

OTHER programmes relevant to Water are:

NATURAL RESOURCES

Wetlands Resource management(K22.6 billion)

ENVIRONMENT

Sustainable Environment Mgt(K13.4 billion)

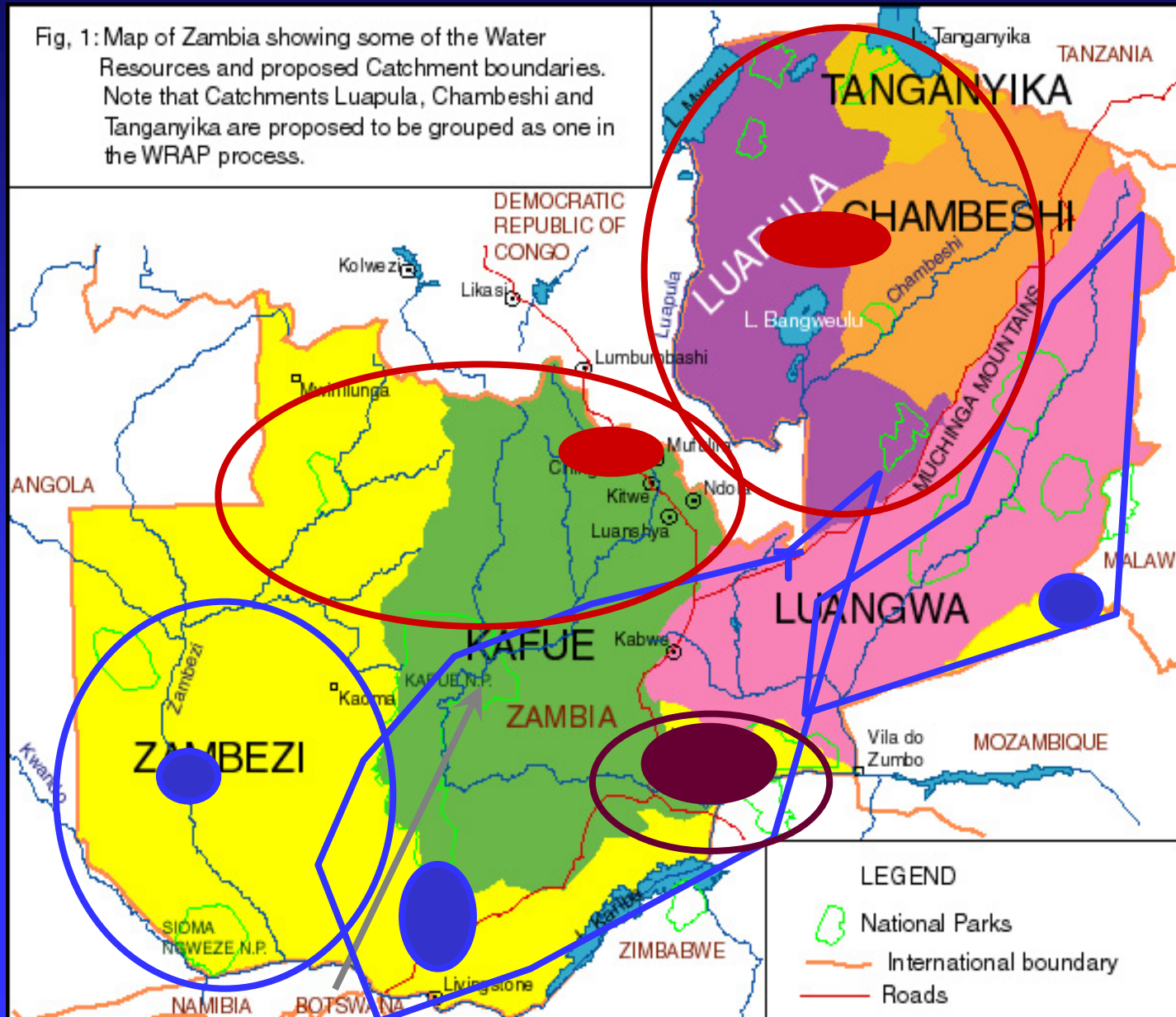
INFRASTRUCTURE -COMMUNICATIONS & METEROLOGY

Meteorological Information & services (K14.3billion)

ROAD MAP TO CATCHMENT CONSULTATIONS

Zambia has six main catchment areas

Fig. 1: Map of Zambia showing some of the Water Resources and proposed Catchment boundaries. Note that Catchments Luapula, Chambeshi and Tanganyika are proposed to be grouped as one in the WRAP process.



Continuation of the IWRM consultation process on the IWRM /WE Plan discussion Document to catchment areas in Zambia so that the Final Document could be handed over to Government.

National Consultation
Lusaka

Continuation led to the realisation that government cannot have two planning document.

The document was re-formated so that it becomes an IWRM /WE Implementation Plan in order to implement the Water and Sanitation Chapter of the FNDP including all the water related programmes in other sectors of the FNDP.

Therefore, from the bottom-up, stakeholders at the catchment, district, provincial and sectoral level were engaged to bring out priority issues that should be tackled in the implementation of the FNDP.

2. Key Lessons Learned & Requirement for success

- Need for Strong Stakeholder participation & commitment at every stage - Strong Multi-platforms
- Political Will and commitment
- Work closely or buy in existing GOVT programmes e.g. WRAP
- Align IWRM / WE plans to GOVT Priority areas
- Dependence on Cooperating partners for financial resource due to lack of Govt finances still makes water sectors off-track in meeting the MDGs.



**2005 is the Visit Zambia Campaign
Start with the Visit to the Victoria Falls, Zambia**