

An overview of the Strategy for flood Management for the Kafue River Basin, Zambia and the experiences of the Zambian 2006-2008 floods

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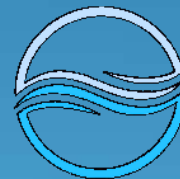
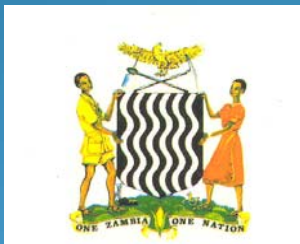
Outline of the presentation

1. Brief Background
2. Why the Kafue River Basin
3. Key Elements of the Integrated Flood Management Strategy of the Kafue River Basin
4. Overview of the experiences of the Floods 2006 - 2008
5. Conclusion



1. Brief Background

- The Government of realised the importance of having a systematic and coordinated way of dealing with floods
- A request was made for technical assistance to be able to develop a strategy starting with the highly flood prone river basin
- An agreement was made between the Zambian Government and the World Meteorological Organisation

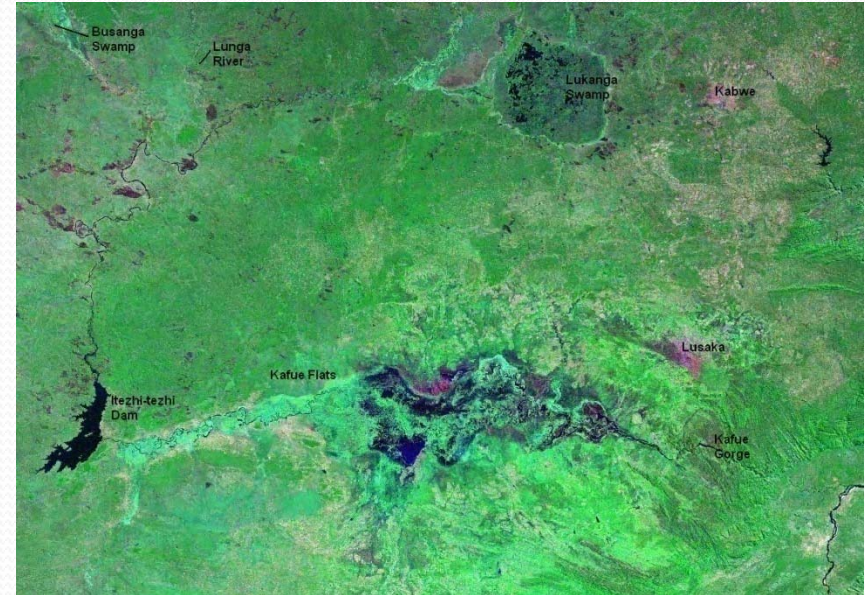


- A technical Team of National Experts was commissioned to work closely with WMO experts to come up with the Strategy. The task was completed in 2006

2. Why the Kafue River Basin

Socio-economic Setting

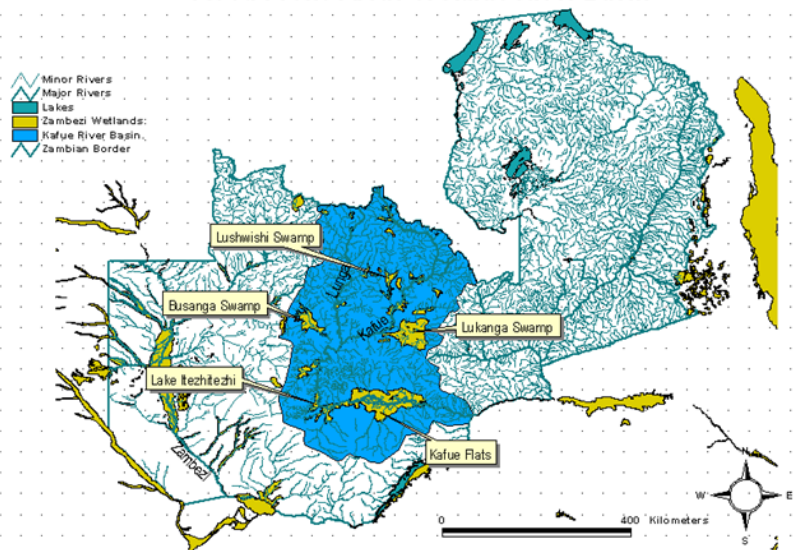
- Covers 20% of Zambia's Land surface
- 50% of Zambia's Population lives in the Basin
- Highly urbanised catchment, all major cities in Zambia are in this basin
- Host to over 90% of the Copper Mines in Zambia



Geological and Geomorphological Setting

- low-yielding hydrological regime
- mean annual flow of $350 \text{ m}^3 \text{ s}^{-1}$ representing 6.2% annual rainfall -
- A high number of Flood prone areas
 - Extensive Kafue Flats
 - Extensive dambos
 - Lukanga swamps
 - Busanga swamps

Flood Prone Areas of Kafue River Basin



3. Key Elements of the Strategy

3.1 Rationale of the Strategy

Floods do result in disasters:

- **Disasters** are events that are associated with the impacts of human-induced or natural hazards which **cause serious disruption in the functioning of a group of people or society causing widespread human, material or environmental losses** that exceed the ability of the affected people to cope using only their own resources (DMMU, 2005)
- **Disaster prevention and mitigation** due to floods is a **multidisciplinary endeavor** wherein development activities in different sectors of the economy **help in the prevention of the disasters and reduce the vulnerability of the society** (APFM, 2004)
- It is against this background that the Strategy was developed for flood management in the Kafue Basin of Zambia



3. Key Elements of the Strategy



3.2 Strategy Elements

The Strategy has presented 16 elements under the six thematic areas. These are:

1. reducing vulnerability;
2. reorientation of approach to development and floods;
3. integrated approach to water resources development and flood management;
4. protecting and conserving environment;
5. addressing weather and climate variability and change
6. coordination between various ministries and agencies

3. Key Elements of the Strategy

3.3 Policy Measures

- The Strategy proposes 31 Policy Measures to be integrated in existing national policies and legislation
- with a goal of effecting more efficient institutional arrangements and enhancing community participation and capacity building.
- A flood forecasting system is also proposed to ensure flood early warning to affected communities



3. Key Elements of the Strategy

3.4 Action Plan

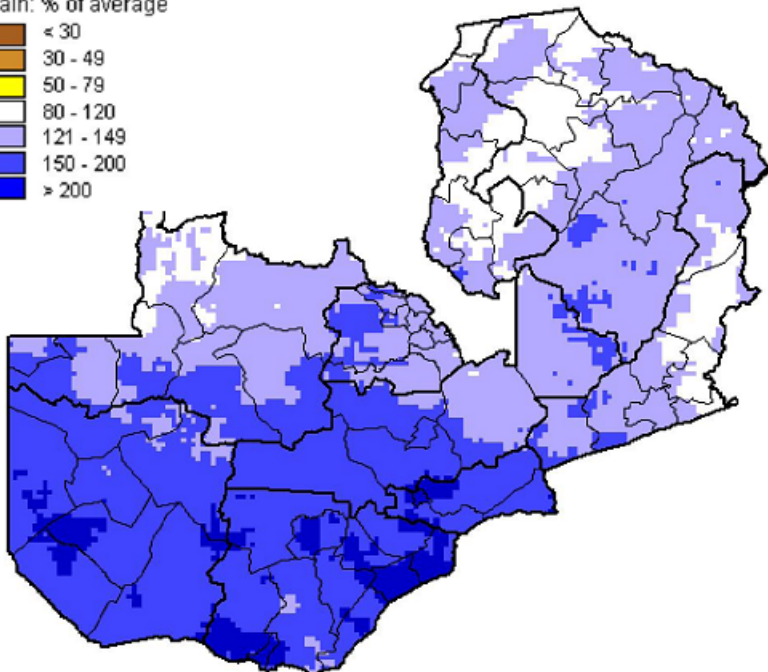
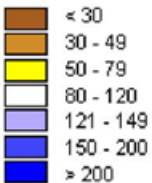
- Having identified the various policy measures to deal with
 - ✓ institutional arrangements;
 - ✓ organisational structure;
 - ✓ structural measures;
 - ✓ non-structural measures;
 - ✓ community participation;
 - ✓ capacity building and
 - ✓ a flood forecasting and dissemination system
- the Strategy proposed 39 measures that should be implemented in the Kafue Basin in order to put this Flood Management Strategy into action
- The measures have been classified into short-term(3-5 years), medium-term(5-10 years) and long-term(beyond 10 years).



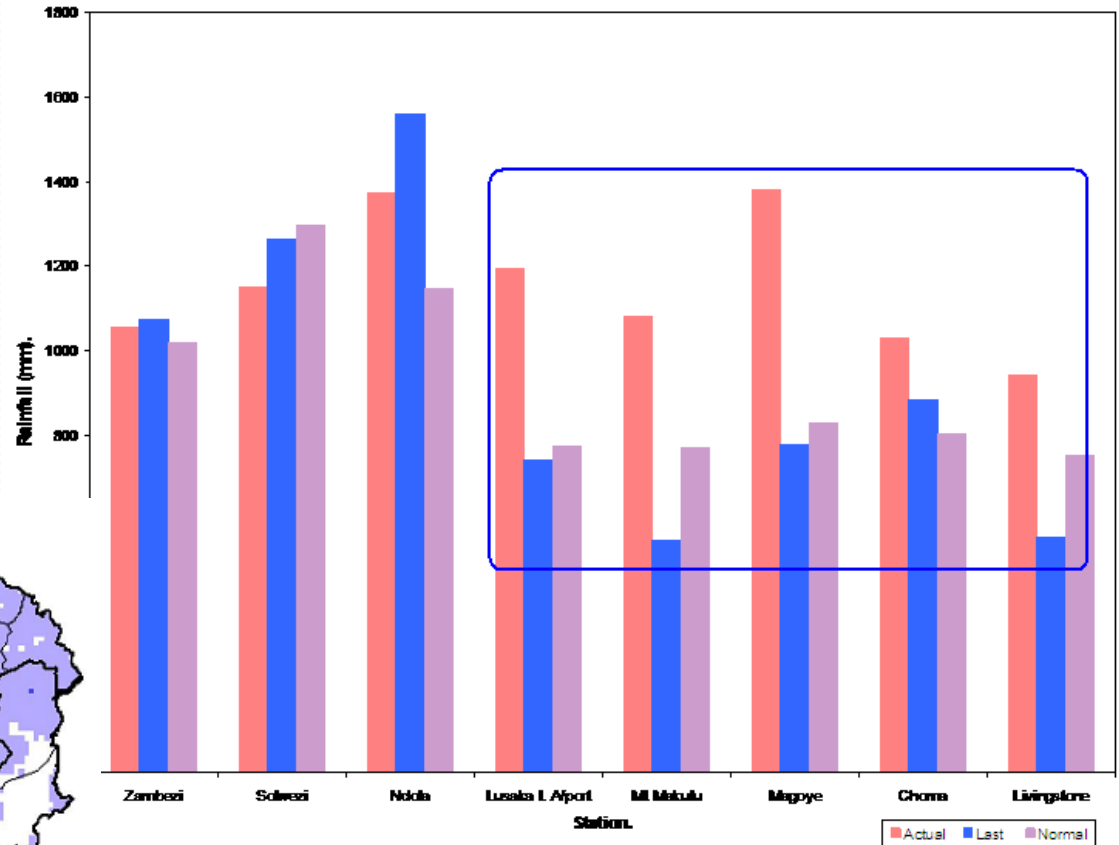
4. Zambia's Floods of 2006 – 2008

Above normal
rainfall observed in
the Southern
drought prone
areas

Rain: % of average



Cumulative Rainfall to 31.03.2008





4.1 Impacts of Floods

- Infrastructural destruction
 - 44 schools affected
 - Roads and bridges washed away country wide
 - Clinics and health centres
 - 61,277 household affected – 367,657 people
- Loss of Life
 - Increase in flood related deaths (25 people reported)
- Destruction of crops
 - 274,800 people affected and these would have to be fed until they are able to grow their own food.

Impacts of floods

Incidents of vehicles being washed off the bridges



Displaced communities



5. CONCLUSION

- The experience in the last two years have shown clearly that it is no good to have a good strategy on the shelves, the benefits only accrue when you take a bold step to implement. The IFM Strategy needs to be implemented without delay in order to get away from the uncoordinated approach to manage and mitigate impacts of floods
- The Strategy in its action plan recommends the development and adoption of a fiscal policy on flood management to ensure that activities related to flood management are fully incorporated in national budgeting process and financial allocation. This will eliminate the heavy dependence on donations and good will in the management of floods



THANK YOU