

NATIONAL MICROBIAL MONITORING PROGRAMME

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The Design and Establishment of the National Microbial Monitoring Programme

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Aim of Presentation

- The aim of this presentation is to give an overview of the implementation process and to discuss problems encountered during the implementation of the NMMP





Introduction and Background

- Department of Water Affairs and Forestry (DWAF) is custodian of SA's scarce water resources
- DWAF is responsible for co-ordination, organisation, control and further development of national water resource quality monitoring programmes.
- Established programmes: NCMP NEMP, & NBMP
- Developing programmes: NRMP & NTMP



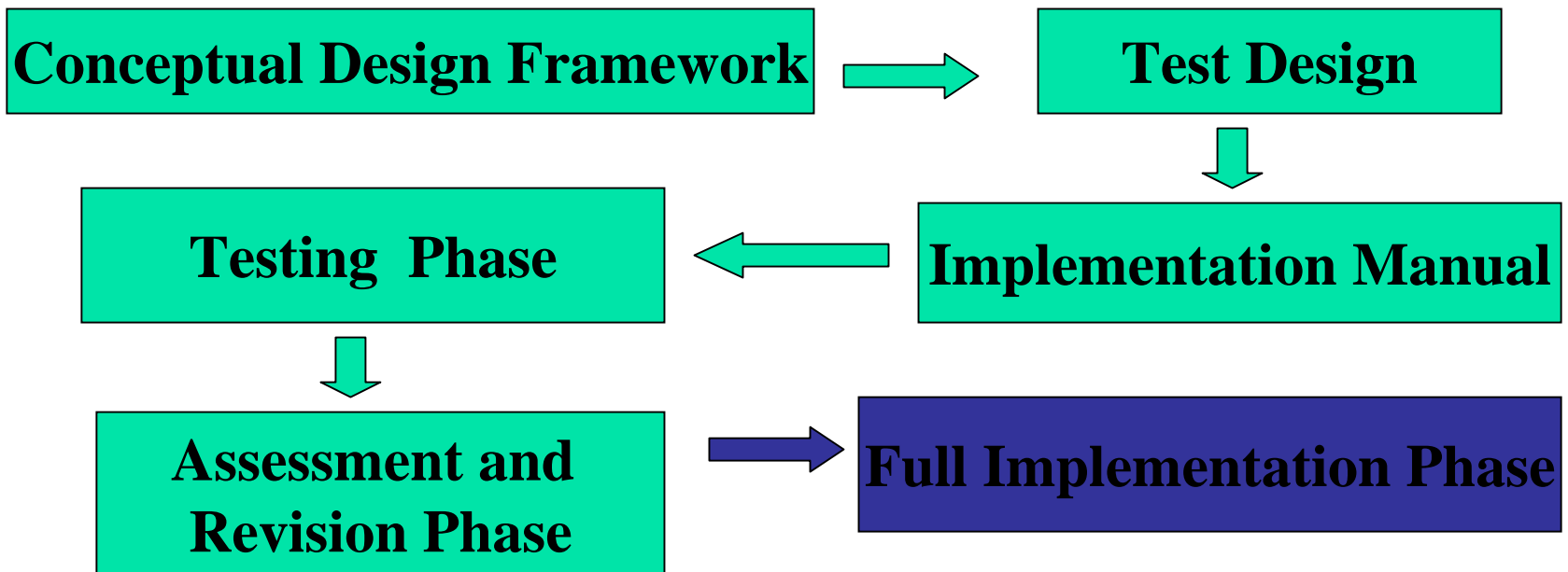
Introduction and Background (2)

- Large scale community water supply and sanitation efforts by DWAF
- Rapid demographic changes ✍ establishment and growth of poorly serviced large dense settlements ✍ faecally polluted water resources.
- Need for information on microbial quality of SA's water resources

Introduction and Background (3)

- To supplement existing National WQMPs, DWAF commenced with development of National Microbial Water Quality Monitoring Programme (NMMP)

NMMP Development & Implementation





Aim of the NMMP

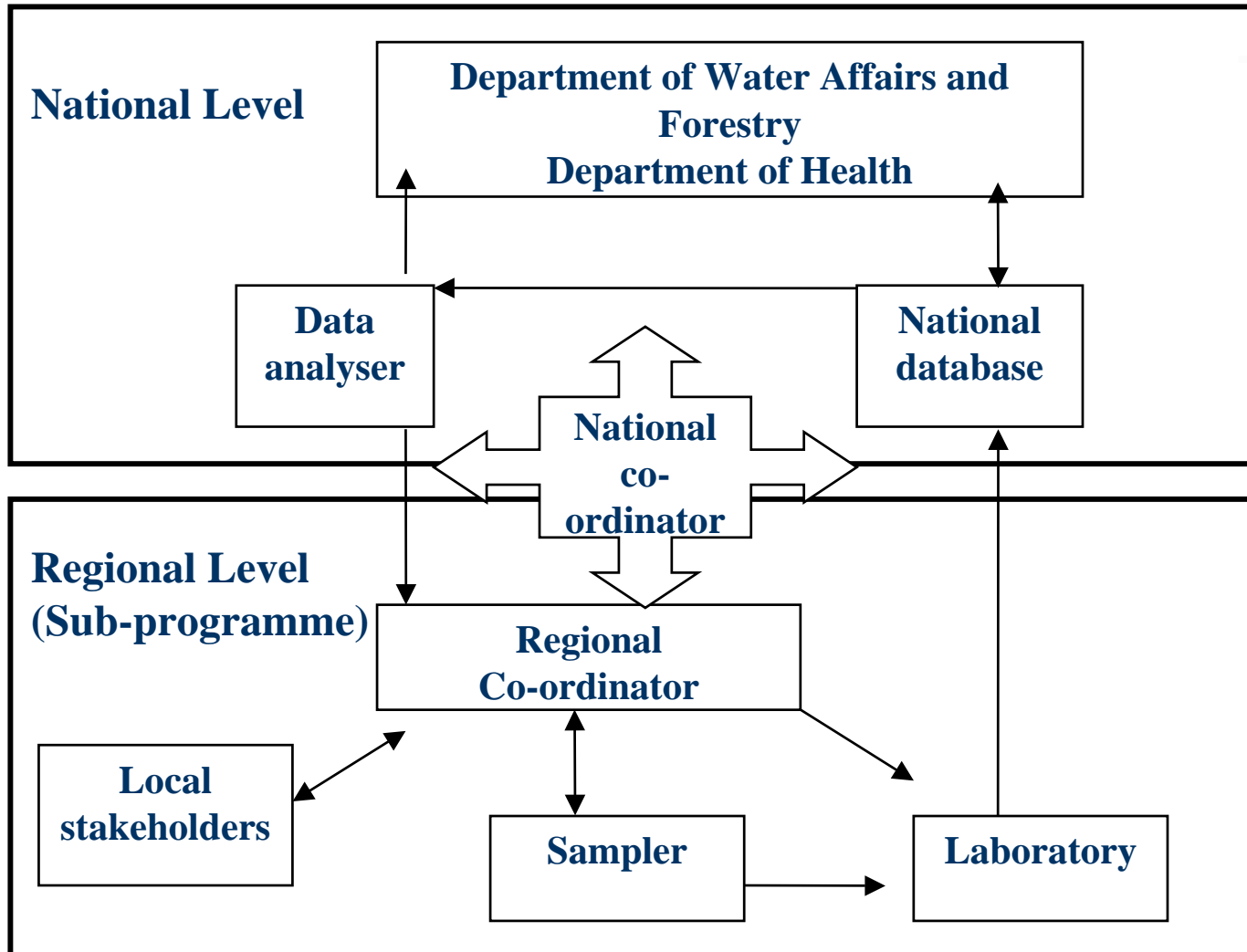
- The aim of the NMMP is to assess, on a national scale, the potential health hazards related to faecal pollution of South Africa's fresh water resources with respect to use for potable, recreational and irrigation purposes



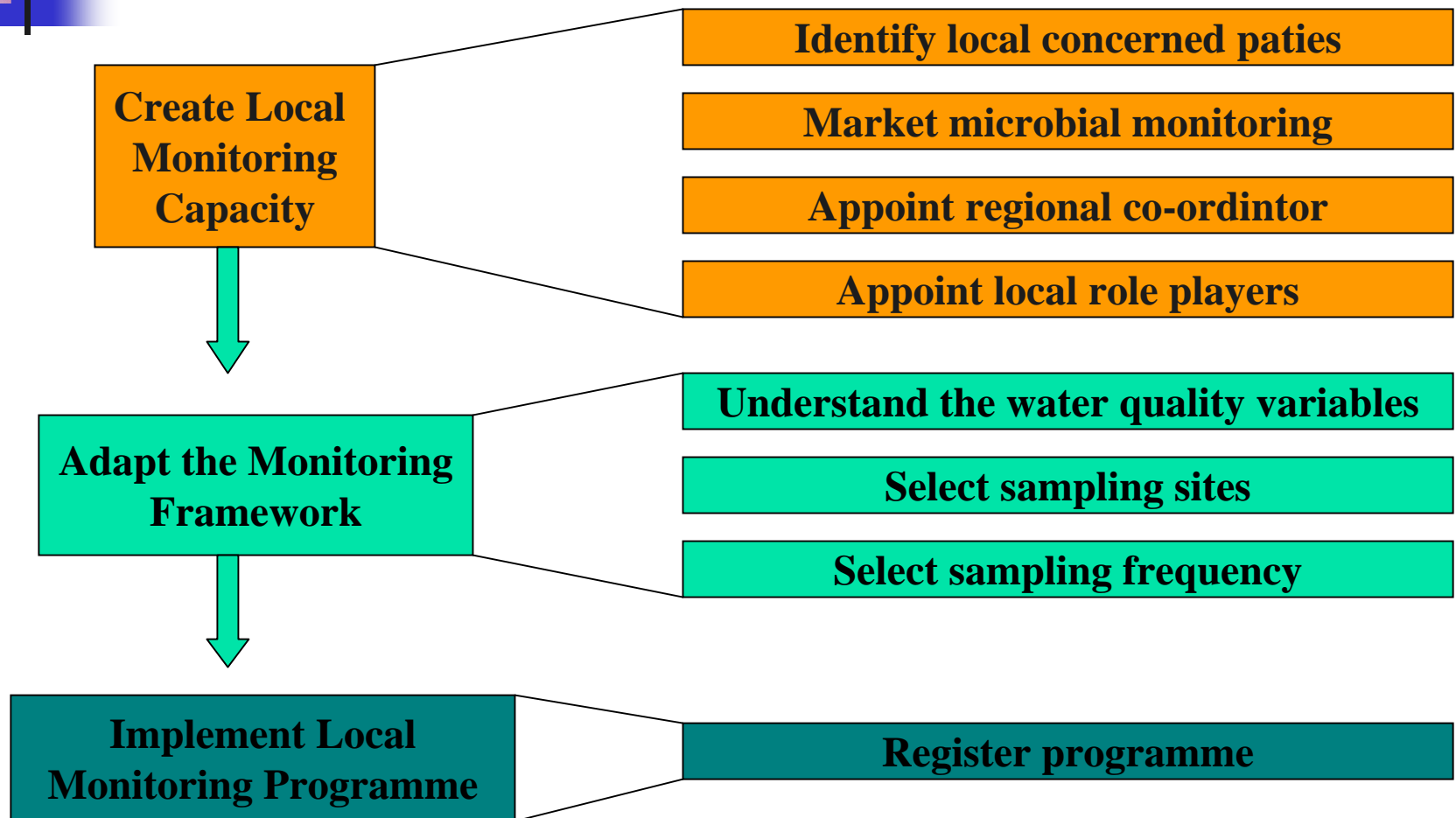
Objectives of the NMMP

- To provide information on the status and trends of the extent faecal pollution, in terms of the microbial quality of surface water in the potential high risk areas.
- To provide information to help in assessing the potential health risk to humans associated with the possible use of faecally polluted water resources.

NMMP Structure



Local Implementation Process



Testing phase (Challenges)

- ✍ Delineation of boundaries for NMMP sub-programmes
 - ✍ Initially too many sub-programmes (120)
 - ✍ Leading to logistical and management problems
 - ✔ One sub-programme per WMA (19)
- ✍ Lack of monitoring capacity
 - ✍ Programme designed to use local resources
 - ✍ Weekly sampling far from laboratories
 - ✔ Allow bi-weekly and monthly sampling
 - ✔ National level to provide funds for analyses?



Testing phase (Challenges)

- ✍ A temporary lack in data capture capacity
 - ✍ Designers assumed that DB will be functional!
 - ✍ No electronic data import facility
 - ✍ Manual data input leading to data bottleneck
 - ✍ Data typists on national level ?
 - ✍ Winterm?
 - ✍ Simple data capture system for NMMP?

- ✍ Regional co-ordination (per sub-programme)
 - ✍ Local stakeholders not coping
 - ✍ Responsible and motivated RCs vital for success
 - ✍ Appoint IWQS staff member for each sub-programme
 - ✍ Appoint consultants
 - ✍ Ensure that CMAs get responsibility



Products of the NMMP

- **NMMP data on National Database**
- **Conceptual Design Framework Document**
- **NMMP Implementation Manual**
- **National Prioritisation Process report**
- **Two monthly local water quality status reports**
- **Annual national water quality status report**
- **Five yearly report to National Custodian**