

## **Annex – Report back notes from group discussions on sub-visions<sup>1</sup>**

### **Sub-vision 2: Equitable Access to water of acceptable quality and quantity for all**

#### Critical issues:

- fragmentation in the water sector (DWA, WUC, MLG / District Councils, Debswana, BPC, individuals)
- tariffs: balancing cost recovery with social equity
- water supply authority: both provider and monitor
- lack of community empowerment / participation
- maintenance of schemes by water supply authorities
- uneven distribution of quality and quantity of water
- lack of integrated planning / development: planning is sectoral
- topography: few available good dam sites
- dam construction
- lack of appropriate technologies: rainwater harvesting, recycling of waste water, desalination, automatic sprinkler systems, pre-paid standpipes
- public standpipes
- lack of control measures for water supply: households +institutions
- inadequate education & awareness campaigns
- lack of skilled personnel: maintenance + ministerial level
- lack of accountability re water conservation practices

#### Action:

- ongoing review of BNWMP to address fragmentation; pursue better coordination and planning amongst water supply authorities and other stakeholders
- introduce measures that balance cost recovery with social equity i.e. 1-6 cubic metres free of charge?
- Develop independent auditors (regulators) who monitor the quality of water
- Promote community empowerment in water resource planning (i.e. water management areas and groups)
- Improve maintenance of water schemes, both urban / peri-urban and rural (ensuring water reaches intended targets)
- Improve water distribution by linking schemes to (reviewed) settlement policy and water treatment and transfer plans
- Promote integrated water resources management and planning amongst water supply authorities and other stakeholders
- Consider underground water storage and other appropriate recharge techniques
- Consider dam construction (small /medium) where appropriate
- Introduce appropriate technologies (incentives, retrofitting)
- Gradually phase out free public standpipes and promote pre-paid systems
- Investigate / introduce pre-paid household supply (quota system)
- Introduce water conservation measures and demand management practices and raise awareness / educate to encourage informed decision-making
- Provide mobile skills training clinics
- Provide borehole pumper training in MLG / District Councils.

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<sup>1</sup> The format of the report back notes as used by the groups in presenting their discussion was not consistent among the groups. This annex captures the actual unedited and unabridged wording of the reports.

### **Sub-vision 3: Proper Sanitation for all and safe Waste Management**

*Issue: lack of integrate educational programme*

Action: inclusion of integrated educational programmes in school curricula starting at primary schools (environmental education)

Role players: MoE, MLG, District Councils, MEWT (DSWM, NCSA), MoH, MLHA, NACA, civil society (extra curricular activities) and education institutions

Linkages: RNPE – environmental education curriculum, NCSA - environmental education strategy and action plan

*Issue: lack of public awareness and training*

Action: public awareness and training programme

Role players: MEWT, NGOs, CBOs, media, private sector, MoH, MLG, MMEWA, tertiary institutions, MLHA, NACA

Linkages: no identifiable national strategies but link with practice of public health (FWEs – family welfare educators, and other health educators) and fragmented awareness campaigns

*Issue: institutional fragmentation and policy*

Action: rationalize /harmonise policies and legislative instruments

Role players: DWA, DSWM, NCSA, MLG, WUC, AG's Chambers, MLHA

Linkages: Botswana National Water Master Plan, National Master Plan for Waste Water and Sanitation, National Conservation Strategy

*Other issues to be addressed:*

- technical and financial support
- identifying appropriate sanitation technologies
- lack of monitoring of facilities
- lack of supporting structures incl. separation of waste (at source)

### **Sub-vision 4: Food Security for all**

#### ***Arable farming***

*Issue: unreliable rainfall*

Action: irrigation agriculture – infrastructure development

Role players: MoA, DWA, Water Apportionment Board, DSWM, Dept. of Lands, Local Authorities (Land Board, District Councils, Town Councils)

Linkages: NAMPAAADD, CEDA, NDB, NMPWWS, BNWMP

*Issue: inappropriate / inadequate farming methods*

Action: promotion of mechanized farming / commercialized farming and urban / peri-urban agriculture

Role players: MoA, CEDA, NDB, NWMP, NGOs

Linkages: NAMPAAADD, NMPWWS

*Issue: ineffective and inefficient framing outreach programmes*

Action: introduce integrated programme which guide farmers from beginning to end (from traditional hands-on extension to assistance in selling end products)

Role players: MoA, NGOs etc

Linkages: see above + SMU

*Issue: poor soils*

Action: improved farming systems (manuring, composting, fertilizers)  
Role players: MoA, private sector, NGOs  
Linkages: NAMPAADD

*Issue: lack of adequate draught power*

Action: subsidized mechanic ploughing  
Role players: MoA, private sector  
Linkages: NAMPAADD

*Issue: rural-urban migration (resulting in reduced interest in arable farming)*

Action: introduce income-generating activities in rural areas / encourage local markets  
Role players: MoA, private sector, civil society  
Linkages: NAMPAADD, CEDA

### **Dairy farming**

*Issue: indigenous breeds have low milk output*

Action: improve breeds / import suitable breeds  
Role players: MoA / APRU, private sector  
Linkages: NAMPAADD

*Issue: insufficient dairy industries*

Action: establish processing industries  
Role players: private sector, BDC, Cooperatives, MoA  
Linkages: NAMPAADD

*Issue: lack of dairy feed*

Action: fodder production  
Role players: MoA, private sector, CEDA  
Linkages: NAMPAADD

### **Sub-vision 6: Sustainable Environment**

*Issue: biodiversity protection and integrated water use*

Action: establish international protocols for water use in river basins / catchment management and cooperation in international commissions  
Role players: MMEWA, SADC Water Sector, NCSA, IUCN, KCS, Dept of Tourism, HATAB, mining companies / private sector, river basin commissions  
Linkages: OKACOM, ODMP, ZAMCOM

Action: establish sustainable funding mechanisms for maintaining and enhancing ecosystem integrity  
Role players: MEWT, NGOs, MFDP, HATAB, MMEWA  
Linkages: Environmental Trust Fund (NCSA, IUCN, UNDP)

Action: enact environmental legislation (EMA, EIA, Waste Water Act) and formulate guidelines and regulations; pursue enforcement.  
Role players: AGs, MEWT, MMEWR, civil society  
Linkages: Env Mgmt Act and EIA draft legislation, Waste Water Act to be reviewed by BNMWP

*Issue: enable local communities to manage their own environment*

Action: considering reinstatement of certain natural resource management responsibilities of Tribal Authorities

Role players: MLG, MEWT

Linkages:

*Issue: ensure all water development scenarios reflect constraints imposed by natural systems in maintaining resource base integrity*

Action: facilitate open access to data and research findings, undertake inventories of research activities and identify research gaps

Role players: MEWT, NCSA, MLHA, National Archives, UB, NGOs, CBOs

Linkages:

Action: inter / intra regional exchange programmes

Role players: all stakeholders incl. CBOs, NGOs, GoB and private sector

Linkages:

### **Sub-vision 7: Security from Natural Disasters**

*Issue: contingency planning and funding*

Action: establish funds for centralized and decentralized decision-making whereby conventional bureaucratic disbursement protocols may be circumvented.

Role players: National Disaster Management Office (NDMO)

*Issue: inadequate public awareness*

Action: embark on multi-sectoral education and publicity campaigns (national programme to cascade down to district and local levels)

Role players: NDMO

Issue: definition of 'disaster'

Action: review and redefine definition on the basis of clear and all encompassing criteria

Role players: NDMO

*Issue: poverty not included yet poverty alleviation is critical path in the attainment of the aspirations of other sub-visions*

Action: disaster interventions should be sustainable to address long-term aspects of disaster (e.g. drought) management

Role player:

*Issue: flooding*

Action: carry out flood studies and EAP in all major rivers and dams

Role players: NDMO, DWA, WUC

*Issue: inadequate early warning systems*

Action: improve efficiency and effectiveness of weather forecasting technology and information dissemination

Role players: Dept. of Met Services

*Issue: risk assessment*

Action: conduct a comprehensive national risk assessment to identify all potential sources of disasters

Role players: NDMO

*Issue: high vulnerability of some businesses to disaster risks*

Action: establish insurance policy for businesses vulnerable to disasters (e.g. tourism and crop production)

Role players: NDMO, MoA, Dept of Tourism, HATAB

### **Sub-vision 8: Integrated Water Resources Development and Management**

*Issue: minimal public consultation and involvement e.g. policy formulation, project development and implementation.*

Action: Identify end users to enhance broader and effective stakeholder participation through effective communication strategies

Role players: WSA, VDCs, Private sector, NGOs, CBOs and individual communities

*Issue: lack of Integrated, people-centred planning*

Action: incorporate gender specific needs in Water resource planning, promote Community Based Natural Resource Management (CBNRM), and promote innovative and appropriate technologies and pricing structures for basic water needs and sanitation

Role players: WSAs, NGOs, CBOs, VDCs and communities

*Issue: lack of water conservation and inadequate water demand management measures and practices*

Action: Intensify EAT regarding WC and WDM and promote innovative and efficient water practices for domestic and agricultural uses (precision agriculture and automatic sprinklers)

Role players: WSA, MoA, farmers, NGOs, CBOs, legislators

*Issue: inadequate environmental protection policies*

Action: Enforcement of EIA policy and implementation of the recommendation, harmonisation of environmental protection policies, effective monitoring of EIA and inclusion of policies that prevent export and import of harmful waste

Role players: Legislators, MEWT, NGOs,

*Issue: inadequate capacity in IWRM*

Action: Promote capacity building, through appropriate training programmes, do training needs assessment and infusion of IWRM into the secondary school environment curriculum

Role players: as above, including tertiary institutions, MoE

*Issue: inadequate Integrated water resources information systems*

Action: establish accessible information network systems

Role players: as above