

Chapter 8

Outcome of Current Governance of Water Resources Issues

Ground Water related

Quantitative	Large unmet demand
	Over-exploitation of Ground Water Resources
	Aquifer mapping
	Low water productivity- Crop/ farming/ Industry
	Strategy for improving irrigation efficiency
	Sustainable Ground Water Development and Management.
	Recharging of Ground Water
	Land subsidence
Qualitative	Standards/Norms/Bench marks source wise and user wise
	Drinking Water
	Irrigation Water
	Industrial Water
	Salinity and Alkalinity
	Arsenic
	Fluoride
	Nitrate
	Saline Water Intrusion along coasts
	Specific Water Quality Issues
	Pollution
	Water borne diseases
	Water Pollutants
	Acid rain
	Bacteria in water
	Nitrogen
	Pesticides
	Phosphorus
	Runoff
	Sewage overflows
	Urbanization and water quality
Administrative	Encroachment of Water Bodies/Floodplains
	Watershed/Catchment Management
	Capacity building of various stakeholders
	Operation and Maintenance of Water Resources Structures
	Issues in Implementation of On-going Projects
	Water Resource Information System
Environmental	Waste Water: Reuse & Recycle related
	Water Treatment
	Effluent treatment
Disasters	

Surface Water related

Quantitative	Gap between IPC and IPU
	Large scale investment
	Completion of ongoing irrigation projects
	Improvement in the efficiency of irrigation system
	Strategies for reviving/improving traditional water storages
	Strategy for minor irrigation through groundwater development and management,
	Low water productivity- Crop/ farming/ Industry
	Increase in WUE
Disasters	Flood Zone Mapping
	Floods, Flash Floods and Storm water
	Droughts
	Desertification
	Drainage Congestion
	Water logging
	Landslides

	Coastal
Special issues	Erosion
	Sedimentation- Rivers, Reservoirs
Qualitative	Standards/Norms/Bench marks source wise and user wise
	River water Quality
	Drinking Water
	Irrigation Water
	Industrial Water
	Salinity and Alkalinity
	Saline Water Intrusion along coasts
	Specific Water Quality Issues
	Pollution
	Water borne diseases
	Water Pollutants Acid rain Bacteria in water Nitrogen Pesticides Phosphorus Runoff Sewage overflows Urbanization and water quality
	Carrying capacity
Administrative	Implementation of zero discharge statute
	Encroachment of Floodplains
	Watershed/Catchment Management
	Capacity building of various stakeholders
	Operation and Maintenance of Water Resources Structures
	Issues in Implementation of On-going Projects
	Dam Design and Safety aspects
	Sedimentation and Storage / Carrying capacity
	(un) reliability of Water Supply
	Establishment of River Basin Organizations/ Authorities.
	Water Resource Information System
	On line flood forecasting information system
Environmental	Glacier melt
	Drying up of springs
	Environmental Flows
	Ecological assets and aquatic species
	Waste Water: Reuse & Recycle related
	Water Treatment
Social	Participatory Irrigation Management
	Information, Education and Communication for mass awareness

For each of the Problem –Standard template -Sub Headings
(Not more than 2-3 pages)

1. Distribution and gravity of the problem across the Districts with a map for the current / Previous Year and previous year of 5 and 10 Years back.
2. Data table: Time trend of the problem- Area, Distribution, number of districts, gravity, impact of the problem.
3. Problem Tree / Root cause Analysis: Cause, Effect and Interventions
4. Financing
5. Best practices if any
6. Issues and Challenges
7. Performance Indicators / Management
8. Current strategy/action plan with timelines and responsible agency.