World Meteorological Organization

Working together in weather, climate and water

WMO

The Grand Challenges for WMO

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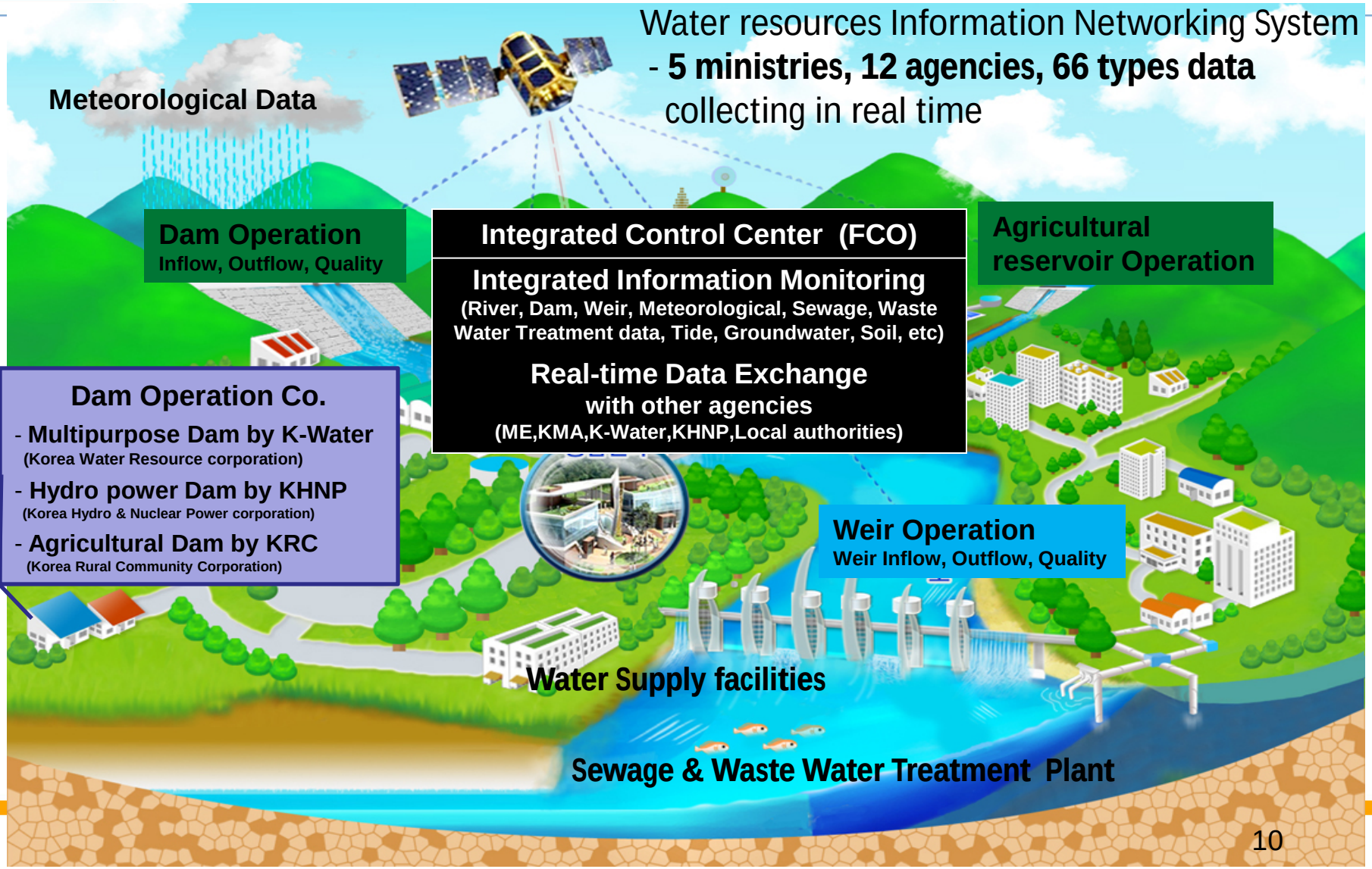
Hydrology and Water Resources

- **Hydrological Survey** (rainfall, water level, stream flow, water use data, dam operation data, groundwater, water quality)
- **Flood Forecasting and Management**
- **Drought Forecasting and Management**
- **Integrated Water Resources Management**
- **Reasonable Allocation river water** (water use permission)
- **Trans-Boundary river management**
- **Water Resources Assessment**
- **Regional and National Water (river) Council**
- **Integrated Information Monitoring**
- **Dam and weir Control**

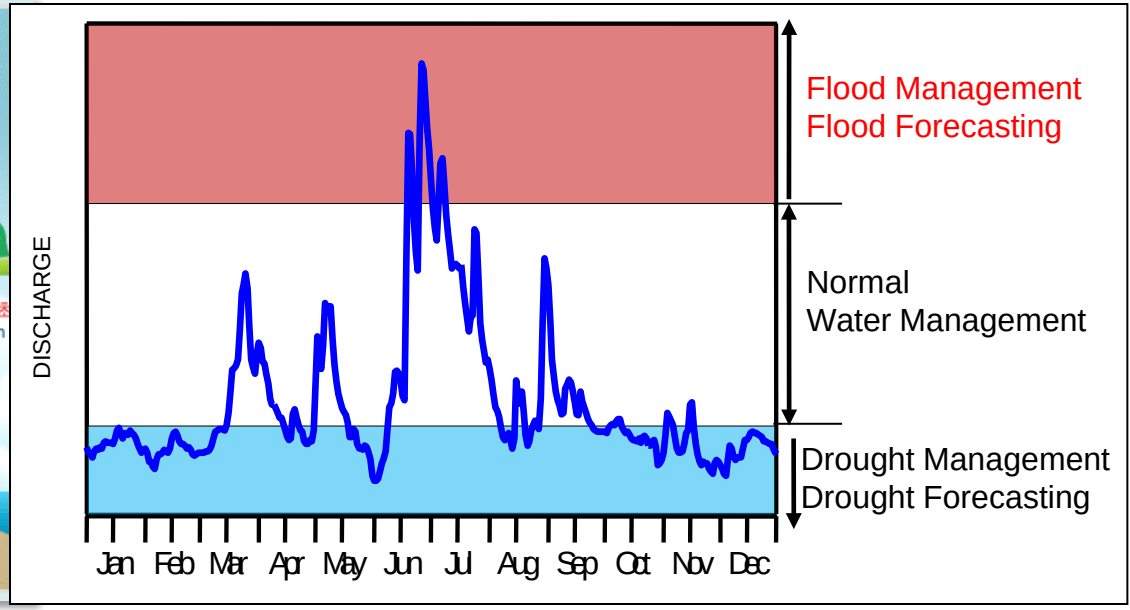
Hydrology and Water Resources
- Integrated Information Monitoring (Example, HRFCO)



Hydrology and Water Resources
- Dam Control (Example, HRFCO)

- **11 dams at Han river basin**(multipurpose, hydropower, flood control)
- **FCO approve the Dam release amount & time**
  - **Comprehensive analysis by using precipitation prediction**

(Upstream + Downstream + Dam Safety + Historical event, etc)



Need to open the door to (proper) NHSs

Ø Two theme leaders are vacant in RAII WGHS

- Mass movement, Drought, Why?

Ø Difficult to Involve in WMO for NHS, Why?

Ø Example : WMO & ESCAP Typhoon Committee

- 3 working groups (WGM, WGH, WGDRR) for 14 members
- (Korea) Ministry of Environment/Korea Meteorological Administration
- (China) Ministry of Water Resources/CMA
- (Japan) Ministry of Land, Infra & Transport/JMA
- (Malaysia) Department of Irrigation and Drainage
- (Thailand) Royal Irrigation Department(office of Water Resources Management and Hydrology)

WEATHER CLIMATE WATER
TEMPS CLIMAT EAU

Thank you

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