

Current situation of water quality in Vietnam and recent policy responses



Pham Thi Nguyet Nga
Vietnam Environment Administration (VEA)
Ministry of Natural Resources and Environment (MONRE)

Main content

- I. Current status of water quality in Vietnam
- II. Major targets for water quality management
- III. Water quality management (recent policy responses)
- IV. Challenges and Recommendations

I. Current status of water quality in Vietnam

- ❖ VN has a large river and canal network, 13 large river systems cover > 10,000 km². Basin of the 9 largest river systems, account for 90% of the total river basins nationwide.
- ❖ Surface water resources up to 2% of the world's total flow of rivers.
- ❖ Total reserves of surface water: >830-840 billion m³, of which more than 60% generated from foreign countries
- ❖ Surface water is facing numerous challenges: water exhaustion and pollution on an extensive scale

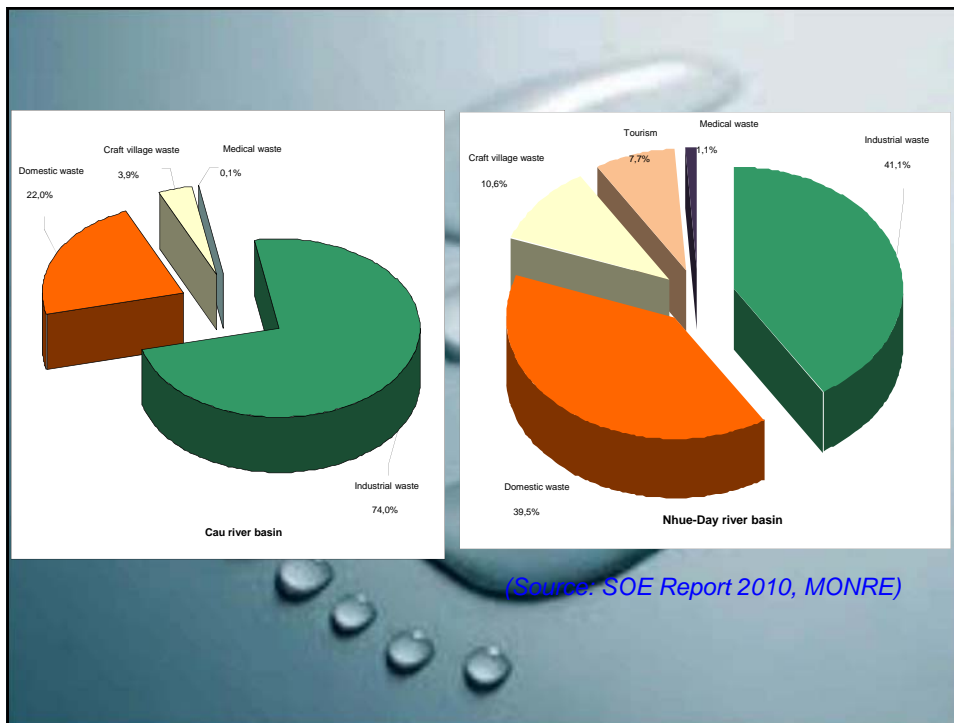


Figure 1.1. Map of large river basins in Vietnam

Source: VIEPA

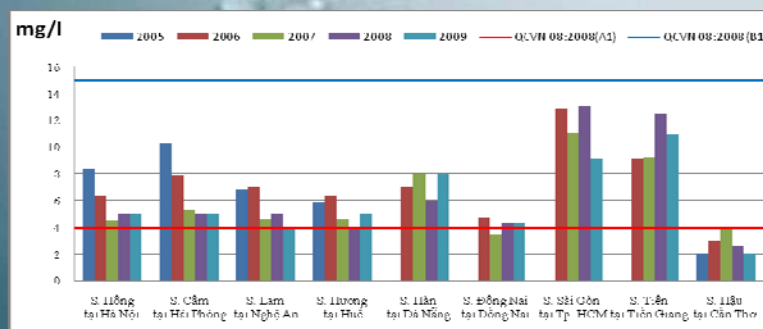
I. Current status of water quality in Vietnam

- **Sources of surface water pollution:**
 - Industrial zones, factories, urban areas discharge untreated wastewater
 - Pressure of waste water mainly comes from industrial and domestic activities



I. Current status of water quality in Vietnam

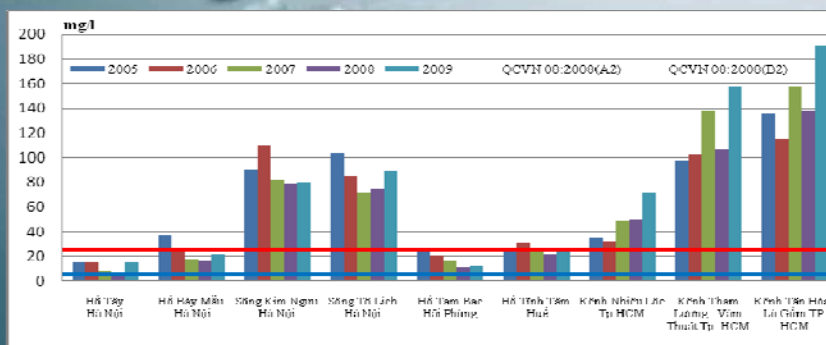
- Concentration of pollutants in major rivers exceed the permitted levels by 1.5 – 3 times



Variation of annual average BOD₅ concentration in major rivers in the 2005-2009 period (Source: VEA, 2010)

I. Current status of water quality in Vietnam

Concentration of pollutants of surface water in urban areas are very high, some areas 10-20 times higher than acceptable limits



Variation of average BOD₅ content in some rivers, lakes and canal inside cities (2005-2009) (Source: SOE Report 2010, MONRE)

II. Major targets for water quality management

- National Strategy for Environmental Protection until 2010 and vision toward 2020 set the targets as follows:
 - By 2020: 100% urban centers, industrial parks and export-processing zones to be provided with centered wastewater treatment systems that measure up to environmental standards
 - By 2020: 100% of the urban population and 95% of the rural population have access to clean drinking water supplies

III. Water quality management

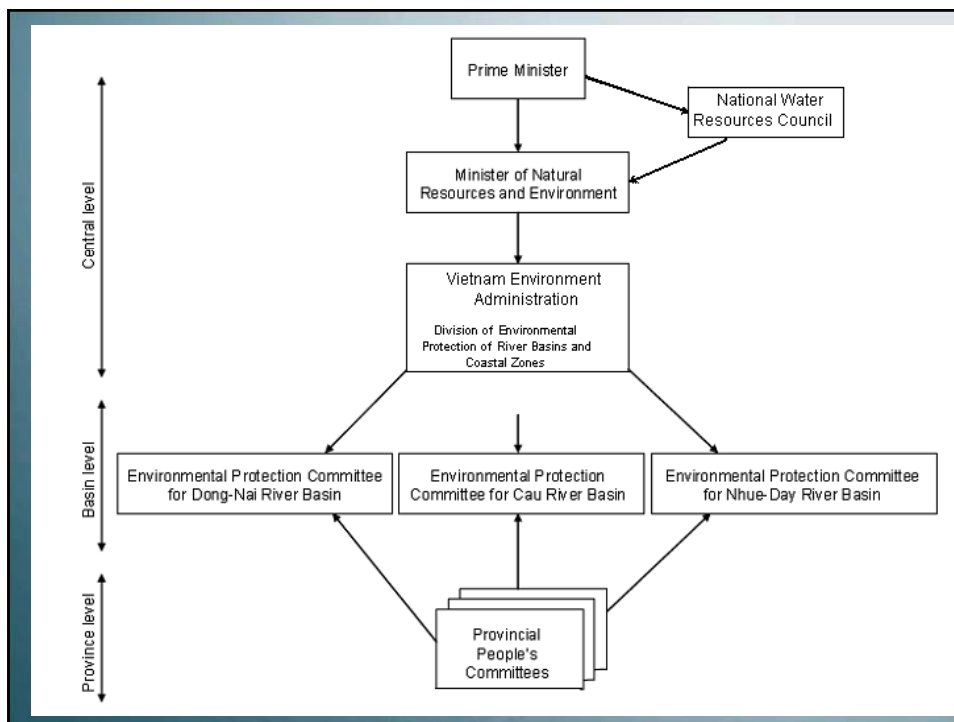
❖ Institutional arrangement for water quality management

Ministry of Natural Resources and Environment	State management of water resources, water quality, meteorology and hydrology, integrated and unified management of the sea and islands Make plans on the use, overall management and protection of water resources in principle river basins
Ministry of Agriculture and Rural Development	State management of agriculture, salt making, fisheries, rural development Irrigation, flood and storm prevention, rural water supply, management of hydraulic engineering and dykes
Ministry of Construction	Implementation of planning for water supply and drainage in urban areas, industrial zones and densely populated areas
Ministry of Science and Technology	Appraise drafts and publicize the water quality standards prepared by MONRE
Ministry of Transportation	Manage and develop the transportation on water, manage aquatic engineering and port system
Ministry of Health	Manage drinking water quality, prepare and supervise drinking water and daily life hygiene and safety standards
Ministry of Industry and Trade	Develop hydropower, build and operate hydraulic works
Ministry of Finance	Prepare guidance of water resource charges, fees and taxes
Ministry of Planning and Investment	Coordinate and submit plans for investing funds in a water management projects

III. Water quality management

❖ Management of large river basins:

- National Water Resources Council: advise Gov and PM on important decision on water resources; ensure proper coordination of concerned ministries, sectors and localities
- Minister of Natural Resources and Environment: carry out river basin planning for large and inter-provincial river basins
- Chairmen of the Provincial People's Committees are assigned to carry out river basin planning for river basins that are located within the administrative boundaries of the according province
- River basin committees: supervise and coordinate activities of ministries, branches, and local government concerning the performance of river basin planning:
 - + *Env. Protection Committee for Cau river basin (2006)*
 - + *Env. Protection Committee for Nhue-Day river basin (2008)*
 - + *Env. Protection Committee for Dong Nai river basin (2007)*



III. Water quality management

- ❖ **Recent policy responses toward water quality management**
 - Law on Environment Protection (1993, revised 2005)
 - Other related laws: Law on Water Resources (1998), Land Law (2003), Biodiversity Law (2008)

❖ Recent policy responses toward water quality management (cont.)

- Decree 120/2008 of the Govt. on management of river basins
- Decree 88/2007 of the Govt. on urban and industrial-park water drainage
- National Strategy for Environmental Protection until 2010 and Vision toward 2020 (issued by PM in 2003)
- National Strategy on Water Resources to 2020 (issued by PM in 2006)
- Decree 67/2003 (revised and supplemented by Decree 04/2007) on env. protection fees for wastewater
- Decision 15/2008 of MONRE on protection of underground water resources

❖ Recent policy responses toward water quality management (cont.)

- Decision 16/2008 of MONRE on promulgating National Technical Specifications on Environment (including 08 national technical regulations):

Ambient standards

- QCVN 08:2008/BTNMT – National technical norm on surface water quality
- QCVN 09:2008/BTNMT – National technical norm on underground water quality
- QCVN 10:2008/BTNMT – National technical norm on coastal water quality

Effluent standards

- QCVN 11:2008/BTNMT – National technical norm on the effluent of aquatic products processing industry
- QCVN 12:2008/BTNMT – National technical norm on the effluent of paper and pulp industry
- QCVN 13:2008/BTNMT – National technical norm on the effluent of textile industry
- QCVN 14:2008/BTNMT – National technical norm on domestic wastewater
- QCVN 15:2008/BTNMT – National technical norm the pesticide residues on the land

IV. Challenges and Recommendations

❖ Challenges

- Degradation of water quality due to economic activities: rapid urbanization and industrialization lead to enormous water pollution
- Poor technical infrastructure: only 30% industrial zones has centered wastewater treatment systems



❖ Challenges (cont.)

- **State Management remains shortcomings:**
 - Functions and duties of different ministries, sectors and local authorities on water quality management are overlapping to some extents and not clearly distinguished
 - Legal system for water resources management is incomplete
 - Lack of reliable information systems for water quality management
 - Human resources for state management of water quality are limited both in number and capacity

❖ Recommendations

- Improve institutional capacity for water quality management (for monitoring, control, investigation, sanction, etc.)
- Continue to complete legal system and improve enforcement (technical guidelines, administrative guidelines, strategy/planning for sustainable management)
- Build reliable and continuous-updating information system/database for water quality management for the whole country (the system should be central-managed)
- Advance technical infrastructure: learn successful water management model of the world; transfer, study and develop wastewater treatment technology suitable with Vietnam's condition
- Enhance capacity building for staff
- Strengthen regional and international cooperation

