



CURRENT SITUATION AND POLICIES ON WASTEWATER MANAGEMENT IN VIETNAM



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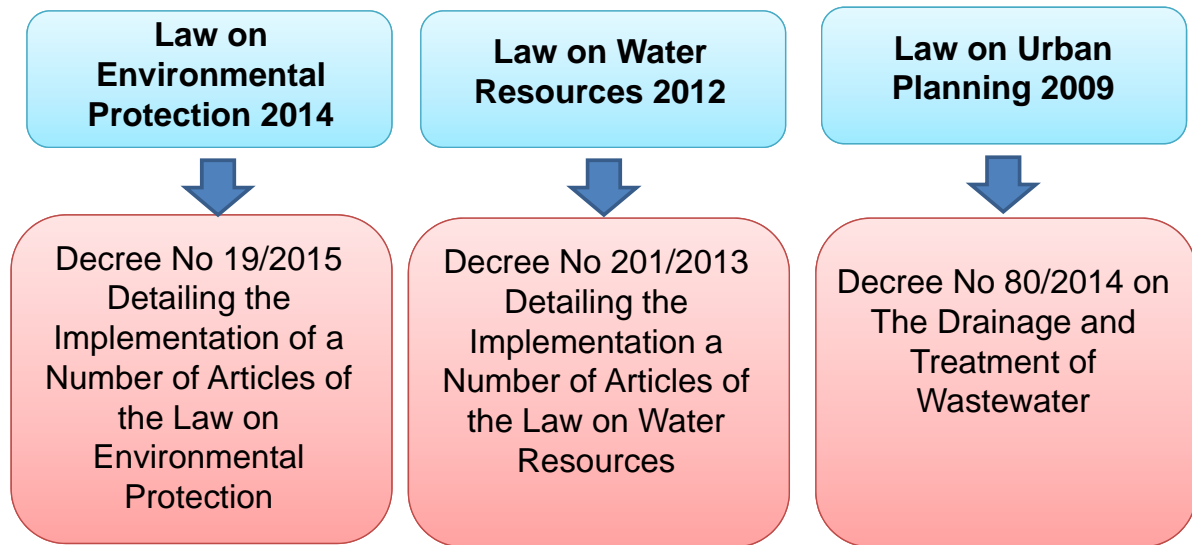
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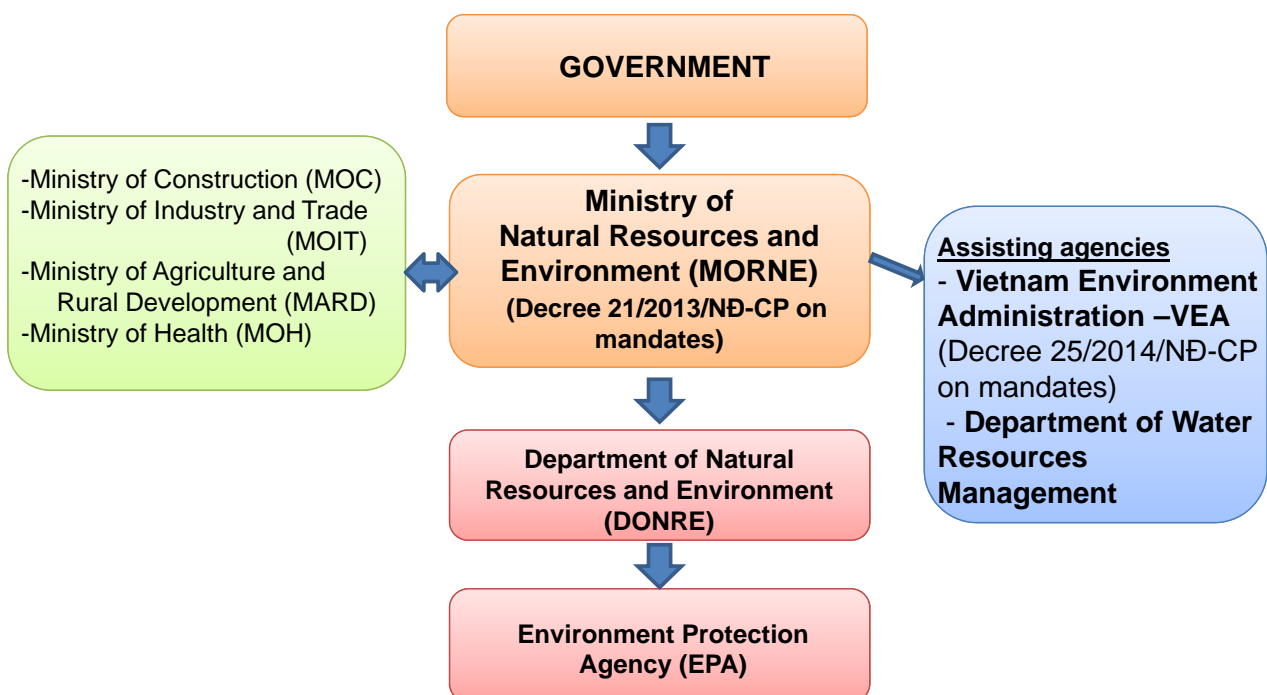
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I. Legal system



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WATER ENVIRONMENTAL MANAGEMENT SYSTEM IN VIETNAM



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II. VIETNAM ENVIRONMENTAL QUALITY STANDARDS

2.1. Water environmental quality standard system

+ *Surface water and ground water quality standard :*

Surface water and ground water quality standard		
1	QCVN 08:2015/BTNMT on surface water quality	02 columns of limit values and 33 parameters
2	QCVN 09:2015/BTNMT on ground water quality	01 column of limit values and 32 parameters.
3	QCVN10:2015/BTNMT on sea water quality	Standards for coastal, inshore and offshore

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+ *Waste water quality standards:*

	Waste water quality standards	Columns of limit values	Parameters
1	QCVN 14:2008/BTNMT on domestic waste water quality	02	11
2	QCVN 04:2016/BTNMT on livestock waste water quality	02	06
3	QCVN 40:2011/BTNMT on industrial waste water	02	36

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- Specific waste water quality standards for some industries and services sectors:

No	Waste water quality standards	No of standards
1	National Technical Regulation on waste water of ethanol fuel production	QCVN 60-MT:2015/BTNMT
2	National Technical Regulation on Textile dyeing industrial wastewater	QCVN 13-MT:2015/BTNMT
3	National Technical Regulation on Paper and pulp industrial wastewater	QCVN 12-MT:2015/BTNMT
4	National Technical Regulation on seafood processing industrial wastewater	QCVN 11-MT:2015/BTNMT
5	National Technical Regulation on natural rubber processing industrial wastewater	QCVN 01-MT:2015/BTNMT
6	National Technical Regulation on Steel processing industrial wastewater	QCVN 52:2013/BTNMT
7	National Technical Regulation on medical wastewater	QCVN 28:2010/BTNMT
8	National Technical Regulation on petrol warehouse and stores wastewater	QCVN 29:2010/BTNMT
9	National Technical Regulation on offshore oil and gas works	QCVN 35:2010/BTNMT

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2.2. Difficulties and limitation :

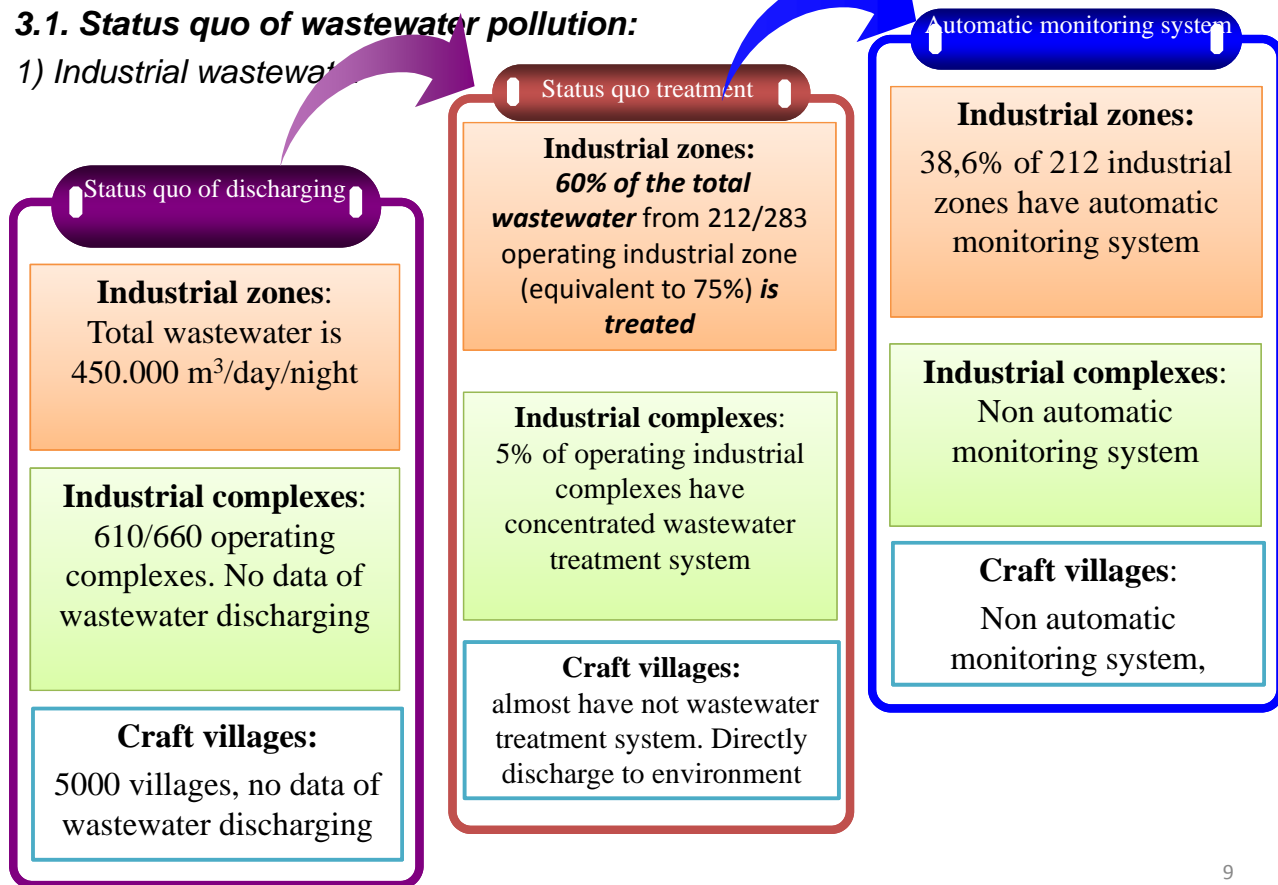
- For the private sector, standard of water and wastewater quality stipulated limited values of water using purpose and wastewater discharge volume. However, there has not any regulations of limited values of wastewater discharge correlative loading capacity of each river basin in Vietnam.
- Limited values of wastewater quality standard are loosened than surface water quality standard at the point of reception. Some specific industrial wastewater standards are lower than general industrial wastewater standards (VN standard 04:2011). The loosening of standards for wastewater quality causes by lack of technical and financial treatments of enterprises and policy of facilitating economy development.

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III. Current situation of waste water management in Vietnam

3.1. Status quo of wastewater pollution:

1) Industrial wastewater



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2) Domestic wastewater:

According to the Ministry of Construction, to the end of 2014:

- + About 3,080,000m³ of wastewater discharged per day/night

- + 30 sewerage factories with a capacity of 809,000m³/ day/night; 40 sewerage factories are being invested with capacity of 1,6 million m³/day/night.

However, the factories have just operated and reached 50% of design capacity and treated 65% of total wastewater.

3) *Medical wastewater:*

Ministry of Health (MOH), 2014: **50%** of hospitals in Vietnam **do not have** wastewater treatment systems.

4) *Livestock wastewater:*

National Environment Report 2014: 1700/23,500 livestock farms (equivalent to 7.2%) in Vietnam have wastewater treatment systems.

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3.2. *Pollution of river basins:*

Reported of MONRE (2015): Pollution of 03 major river basins in Vietnam (Cau, Nhue Day and Dong Nai) is at an alarming rate, due to urban wastewater discharged.

The measured parameters are exceeded Vietnam standard, mainly organic matter, TSS, COD, BOD ...



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IV. Policy on coordination and investment of development of wastewater treatment technologies in Vietnam

- According to the Vietnam Environment Administration (VEA), in the period 2011-2015, motivation of International cooperation has helped Vietnam to attracted more than 30 international projects on the environment with a total budget of 755 million USD.
- The capital sources have been mobilized for investment in environmental remediation works such as solid waste landfills, domestic wastewater treatment system, medical waste incinerator ...
- According to estimates of MONRE, the demand of investment for Environmental protection amount to more than 7,6 billion USD.
- In the field of wastewater treatment, the Vietnam enterprises have gradually approach, cooperation and technology transfer from abroad. Some model has been transferred and applied practically in the production base for a number of subjects of medical effluent, living activities and other industries: Johkasou (Japan), DEWATS (Germany), Biofast- M (United States), AAO (Japan), C-Tech ... The environmental experts assume, the environmental process technology which been transferred mostly bring the high efficiency.

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*** The need for supporting and developing the environmental industries in Viet Nam**

According to the MONRE: on the whole country, all kinds of waste water untreated up to 1.5 billion m³ (of which about 1 billion m³ is the urban waste water and industrial areas).

Current status of the service industry and the environment have not met the needs of environmental protection in general and waste treatment in particular. Therefore, Vietnam needs the financial support as so as science and technology of the developed countries to invest in and deal with environmental problems.

According to the Ministry of Industry and Trade (MOIT), the environmental industry in Vietnam so far in 2015 is only manageable 2-3% of urban wastewater treatment. Demand forecasts developed environmental industry now in Vietnam is huge, to year of 2020 the production of wastewater treatment equipment shall be 1 billion USD and 2030 the forecast numbers shall be 4.5billion USD.

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V. Difficulties and challenges in the management:

- *First*, the regulations on urban wastewater management, the functions and duties of the management bodies scattered, dispersed in too many different legal documents should make it difficult to manage. (Due to the particular of the Vietnam Urban and Industrial Zones, production facilities, craft villages are still interspersed in some urban areas due to lack of planning)
- *Second*, the division of responsibilities of State management of environmental protection in the Ministries are still overlapping. Leading to effective management control of urban wastewater pollution is not accomplished.
- *Third*, lack of manpower in wastewater management from the central to local levels, and there is currently no branch inspectors by the regulation of the Inspection Law.

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- *Fourth*, the network system of nation environmental observational does not meet practical requirements. Most provinces/city has no automatic monitoring system of the locality.
- *Fifth*, resources spent to pursue the environmental carrier is low and does not meet actual requirements.
- *Sixth*, the construction of sewage treatment works focus not commensurate with the level of increase in urban waste, leads to environmental pollution levels tend to rise; (Due to lack of funding)
- *Seventh*, the private enterprise approach to the source of ODA to invest in building wastewater treatment systems remains limited. (Due to inadequacies in certain law and regulations).

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Thank you for your attention!