



# **Implementing the Strategic Action Programme for the South China Sea and Gulf of Thailand (SCS SAP Project)**

**First Meeting of the Regional Working Group on Land-Based Pollution**

Teleconference, 13 December 2022

## **VIETNAM REPORT ON NATIONAL EFFORTS AND ACHIEVEMENTS IN IMPLEMENTING SAP AND NAPs FOR LAND-BASED POLLUTION DURING 2008- 2021 AND FUTURE PLANS**



# Country report on efforts and achievements of Vietnam in implementing the National Action Plan and Strategic Action Programme on Land-based Pollution during 2008-2021

## INTRODUCTION

Recognizing that actions were urgently needed to halt degradation of the environment of this marine basin, the countries of the region sought the assistance of UNEP and the Global Environment Facility (GEF) in preparing a Transboundary Diagnostic Analysis of the issues and problems and their societal root causes as the basis for development of a Strategic Action Programme (SAP). The up-dated Strategic Action Programme was one of the anticipated outputs from the UNEP/GEF Project entitled “*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*” (SCS Project), and the document contains the final text as approved by all countries during the 8<sup>th</sup> meeting of the Project Steering Committee in Hanoi, Viet Nam, August 2008. It was anticipated that the countries would commence implementation of the envisaged actions in 2008/2009 in parallel with the process in seeking further support from GEF for the SAP implementation.

The SAP established a series of objectives and priority costed actions for coastal habitats, land-based pollution management, and the over-exploitation of fish stocks in the South China Sea. In order to implement the SAP, at the regional level, the GEF adopted on November 3<sup>rd</sup>, 2016, the project entitled “*Implementing the Strategic Action Programme for the South China Sea and Gulf of Thailand (SCS SAP Project)*”. It was noted that regional actions would contribute to achieving the target through: capacity building for activities at the national and local levels; provision of opportunities in exchange of experiences and good practices among countries in the region; common guidelines and other tools used by countries in management planning and practices; standardisation in regional synthesis and comparison; provision of sound scientific information for management; and encouraging governments at all levels to develop policy related to environment management. It was also emphasised that actions at the national and local levels are critical for success of the SAP targets. National Action Plans (NAPs) were developed in all participating countries and had been, or would be adopted by, governments to meet national priorities and to contribute to regional targets incorporated in the SAP.

As other participating countries, Vietnam developed the NAPs for habitat and land-based pollution management during the course of the SCS Project and have conducted a series of activities in implementing the SAP and NAPs since 2008. This report provides evidence on proactive contribution of Vietnam in implementing the SAP and NAPs on land-based pollution and supports to estimate country co-finance for environment management in the SCS during last decade. The reviews of past activities and outputs would be helpful for seeking the gaps which shall be addressed in implementing the SCS-SAP project in 2022-2024.

## NATIONAL ACTIVITIES AND ACHIEVEMENTS DURING 2008-2021 OF Vietnam

### 1/ National policies and laws, and financial mechanism for the management of land- based sources of pollution

As indicated in the SCS SAP Project document, the purpose of the land-based pollution component of the Strategic Action Programme is not to finance interventions that directly reduce the load of contaminants reaching the marine environment from land-based sources but rather the implementation of activities to support the integration of regional science with national-level policy making and planning for the management of land-based pollution. In this connection, key outcomes of component 2 include: effective integration of regional science in the management of land-based pollution; and strengthened and harmonized national policies and laws, and supporting financial mechanism, for the management of land-based sources of pollution.

At the national level, activities will support: reviews of legislative and institutional frameworks for land-based pollution management in participating countries; harmonization of national Standard Operating Procedures for land-

based pollution control and management, including agreed sediment, biota, and water quality criteria; revision of national/provincial policies; development, enactment and implementation of supporting regulations for land-based pollution; and the updating and adoption of National Investment Plans for land-based pollution management in the SCS.

Although regional activities had not been conducted due to the delay in implementing the SAP with GEF support, the participating countries implemented their NAPs during 2008-2021. Table 1 below presents national efforts in improving national policies and laws, and financial mechanism for the management of land-based sources of pollution in Vietnam.

**Table 1. National efforts in improving national policies and laws, and financial mechanism for the management of land-based sources of pollution in Vietnam**

Baselines in 2008	Regional Outputs	Achievements during 2008-2021
Lesson learned in community-based wastewater mgmt. in Batam, Indonesia documented and shared regionally although other examples from East Asian seas region largely focus on broad scale ICM planning	2.3.1 National best practices in waste water management, law enforcement, and community and industry participation in managing land-based sources of pollution documented and shared	<ul style="list-style-type: none"> <li>- Project: Controlling marine environmental pollution due to socio-economic activities in the sea areas of Quang Ninh - Hai Phong, Da Nang - Quang Nam, and Ba Ria Vung Tau - Ho Chi Minh City, implemented by VASI in 2013</li> <li>- Project "Reducing Ocean Plastic Waste in Vietnam" from 2020 to 2023</li> <li>- World Oceans Day (June 8th every year), Vietnam yearly implements and responds to Sea and Island Week from June 1st to 8th since 2008 until now</li> <li>- Respond to World Environment Day taking place every year on June 5<sup>th</sup>. It is one of the most important days that the United Nations organizes to promote environmental awareness and action worldwide.</li> <li>- The project "Strengthening propaganda on management, protection and sustainable development of Vietnam's seas and islands"</li> </ul>
Effectiveness of existing legal and institutional frameworks limited by predominantly single sector approaches	2.3.2 Review of legislative and institutional frameworks for land-based pollution management in participating countries	<ul style="list-style-type: none"> <li>- The Prime Minister has approved the Master Plan on Vietnam's seaport system development in the period of 2021 - 2030, with a vision toward 2050 in Decision No. 1579/QD-TTg dated September 22<sup>nd</sup>, 2021</li> <li>- Resolution No. 09-NQ/TW dated February 9<sup>th</sup>, 2007 on Vietnam's Maritime Strategy to 2020</li> <li>- Resolution No.36/NQ-TW dated October 22<sup>nd</sup>, 2018 on the Strategy for sustainable development of Vietnam's sea-based economy by 2030, vision to 2045</li> <li>- In 2009, the Prime Minister approved the Master plan on the development of the oil and gas industry by 2025, with a vision to 2035</li> <li>- In 2020, Resolution No. 55-NQ/TW dated February 11<sup>th</sup>, 2020, of the Politburo on orientations for Vietnam's national energy development to 2030, with a vision to 2045</li> <li>- In 2010, the Prime Minister approved the planning for the economic development of the islands of Vietnam until 2020.</li> <li>- Law on Natural Resources and Environment of Sea and Islands 2015</li> </ul>

		<ul style="list-style-type: none"> <li>- National action plan on ocean plastic waste management to 2030 approved by the Prime Minister in Decision No. 1746/QD-TTg dated December 4<sup>th</sup>, 2019</li> <li>- The national strategy on integrated solid waste management up to 2025 with a vision to 2050 was approved by the Prime Minister in Decision No. 491/QD-TTg, dated May 7<sup>th</sup>, 2018.</li> <li>- Decree No. 38/2015/ND-CP dated May 24<sup>th</sup>, 2015 of the Government on waste and scrap management was updated and revised in Resolution No. 40/2019/ND-CP dated July 1<sup>st</sup>, 2019 (Both of these documents have expired on January 10<sup>th</sup>, 2022 and are now replaced by Resolution No. 08/2022/ND-CP and Decree 02/2022/TT-BTNMT both dated in January 10<sup>th</sup>, 2022).</li> </ul>
Lack of Standard Operating Procedures for land-based pollution management	2.3.3 Harmonized national Standard Operating Procedures for land-based pollution control and management [including agreed sediment, biota, & water quality criteria]	QCVN 10-MT:2015/BTNMT on national technical regulations on seawater quality
Absence of clear and effective policies, laws, and regulations relating to control of land-based pollution	2.3.4 Revised national/provincial policies and supporting regulations for land-based pollution developed, enacted and implemented by Yr 5	<ul style="list-style-type: none"> <li>- The Law on Petroleum in 1993, was amended and supplemented in 2000 and 2005, Vietnam Maritime Code was updated in 2015 (with previous versions in 1990, 2005)</li> <li>- The Law on Tourism 2005 was amended in 2017.</li> <li>- The 2003 Law on Fisheries was amended in 2017.</li> <li>- Law on Environmental Protection 2014 was updated in 2020.</li> </ul>
Guidelines for assessing the economic impacts of land-based pollution developed but not yet applied as part of benefit-cost analysis of pollution mgmt. in the SCS	2.3.5 Updated and adopted National Investment Plans for land-based pollution management in the SCS [Yr 5]	Not available information on status in updatingg and adopting National Investment plans
Lack of sustainable mechanism to finance regional support actions including M&E	2.3.6 Regional financial mechanism for land-based pollution management [Yr 5]	Not available information on national financial mechanism developed

## 2/ Status in improving water quality in identified hot spots and monitoring stations

The RWG-LbP characterized 17 hot spots and listed 400 monitoring stations in the coastal waters of countries bordering the SCS for the period of 2002 – 2004. The targets for the land-based pollution component are to set and maintain region-wide water quality standards and water quality objectives which will assist in maintaining health of the coastal ecosystems. The specific targets for improving water quality are to meet ASEAN seawater quality (14 parameters) criteria (except pollutants from scientifically identified natural sources, if any) for:

- 90% of monitoring stations in the 17 hot spots characterized by the RWG-LbP between 2002 – 2004;
- 80% of other monitoring stations (more than 400 at that time) in coastal waters of the South China Sea.

The concrete numbers of hot spots and monitoring stations as targeted for implementing the SAP in participating countries are presented in table 2.

Table 2. Targets for improvement of water quality in hot spots and monitoring station of each country

Targets & achievement	Cam	China	Ind	Phi	Thai	Vie
90% of hot spots meet water quality criteria	3	3	3	3	2	3
80% of water monitoring stns meet water quality criteria	6	80	80	7	136	17

Preliminary statistics allow to describe the achievement of V in improving water quality as follows:

- Number of hot spots meet water quality criteria and % compared with the target: [number & %]  
No data and information available
- Number of monitoring stations meet water quality criteria and % compared with the target: [number & %]  
List these monitoring stations and additional comments, if any:

*MONRE<sup>1</sup> conducted monitoring survey on coastal sea water quality in the period 2015-2019, the monitoring results were compared with QCVN10- MT:2015/BTNMT. Monitoring results of coastal sea water quality at 03 hotspots under RWG-LbP in Vietnam including Quang Ninh, Da Nang and Vung Tau are as follows:*

### Quang Ninh

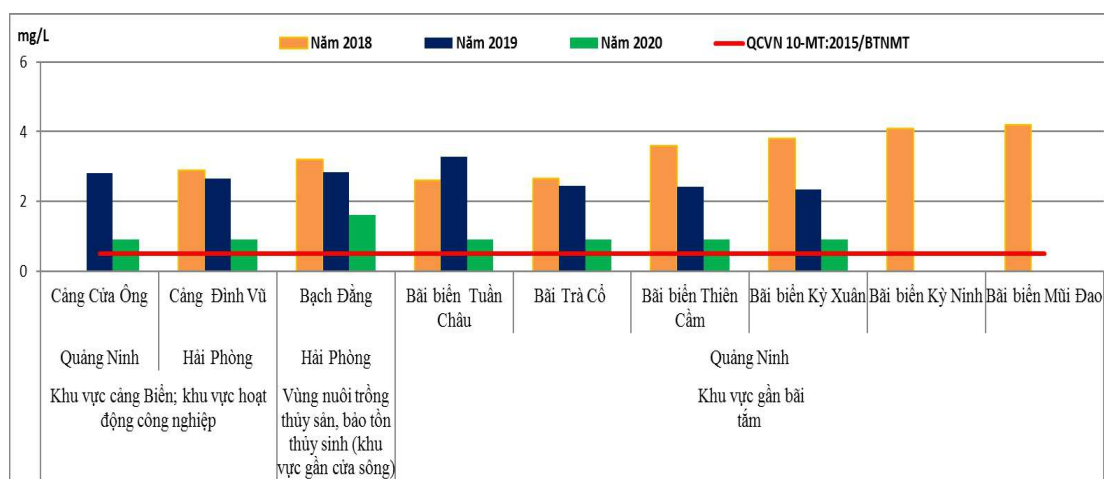
According to the survey results of VASI in 2019, estuary areas and aquaculture areas were lightly polluted with  $\text{NH}_4^+$  or reached the permissible threshold of QCVN10- MT:2015/BTNMT



Figure 1.  $\text{NH}_4^+$  concentration in Quang Ninh marine aquaculture area in 2019

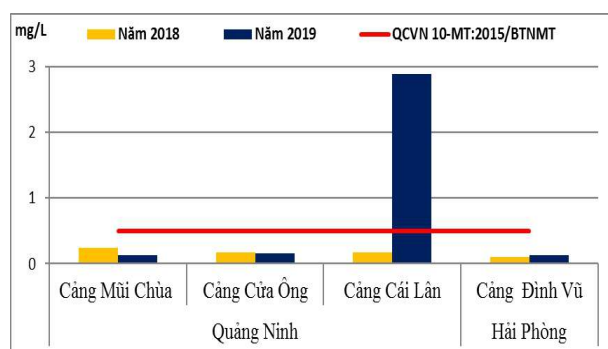
<sup>1</sup> Ministry of Natural Resources and Environment, Department of Water Resources Management. Strategic environmental assessment report of "Planning on water resources for the period of 2021 - 2030, with a vision to 2050". Report dated November 25<sup>th</sup>, 2021 after editing comments of the Council.

At seaports, due to boat activities, seawater is also polluted by mineral oil and grease, most of the monitoring points have recorded the content of mineral oil and grease exceeding the allowable limit of QCVN 10-MT:2015/BTNMT (0.5 mg/L)

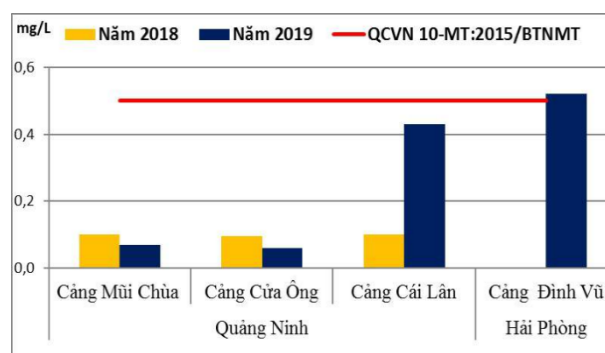


**Figure 2. The total concentration of mineral oil and grease in the Northern coastal region in the period of 2018 - 2020**

At some seaports where monitoring is carried out (Cai Lan Port - Quang Ninh; Dinh Vu Port - Hai Phong), the results show that the parameter values  $\text{NH}_4^+$  and  $\text{PO}_4^{3-}$  exceed the allowable limit.



**Figure 3.  $\text{NH}_4^+$  concentration in the Northern seaport area in the period of 2018 - 2019**



**Figure 4.  $\text{PO}_4^{3-}$  concentration in the Northern seaport area in the period of 2018 - 2019**

In some large island clusters in the North, such as Co To - Vinh Thuc island cluster and Van Don island cluster in Quang Ninh province; Bach Long Vi Island belongs to Hai Phong city... these are islands and island clusters with activities of exploitation, preliminary processing and processing of seafood, but the amount of waste generated is insignificant and infrequent which steadily impact on the marine environment. The monitoring and analysis parameters were within the allowable limits of QCVN 10-MT:2015/BTNMT.

In conclusion, the survey results for the period of 2018-2019 at Cua Ong port - Quang Ninh presented that the quality of the sea water environment was of good quality and within the allowable limits according to QCVN 10-MT: 2015/BTNMT. At the location where aquaculture was carried out at 03 points including Bui Xa fishing raft area, Quang Yen oyster shrimp farming area and estuary near Hoang Tan island had  $\text{NH}_4^+$  parameter reaching the allowable threshold.

## Da Nang

The monitoring results at 10 seaports of VEA at the beaches in the years 2018 - 2019 show that the central coastal area from Thua Thien Hue to Binh Thuan province, a few seaports such as Tho Quang seaport, Nha Trang seaport and Phan Thiet seaport have been reported to be polluted by  $\text{NH}_4^+$  and has an increasing trend in recent years. However, Au Thuyen monitoring point in Tho Quang - Da Nang was a hot spot for coastal marine environmental pollution in the Central region and nationwide, the pollution level tended to increase every year.

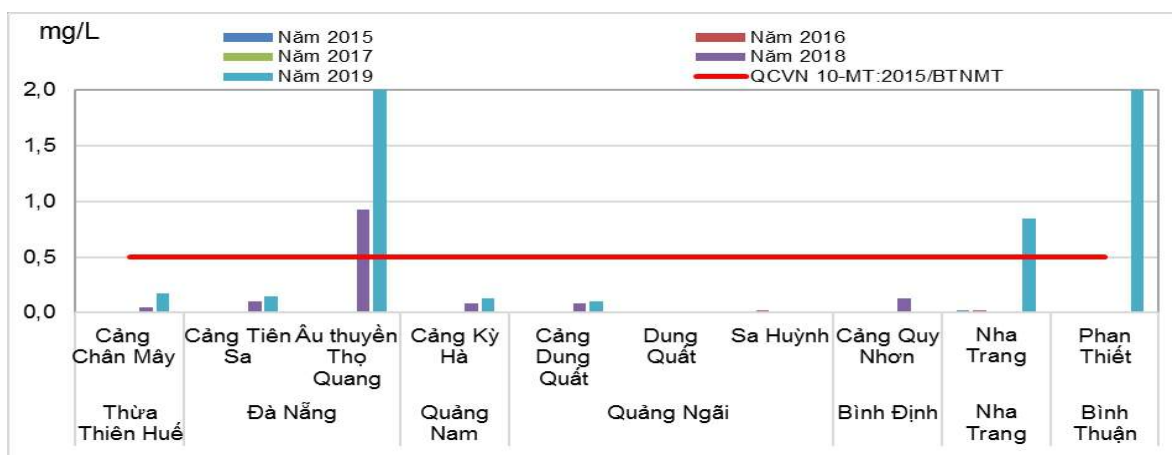


Figure 5,  $\text{NH}_4^+$  concentration at seaports along the Central coast in the period 2015 – 2019  
(Source: Vietnam Environment Administration; Coastal environmental monitoring station in the North anCentral Vietnam, 2019).

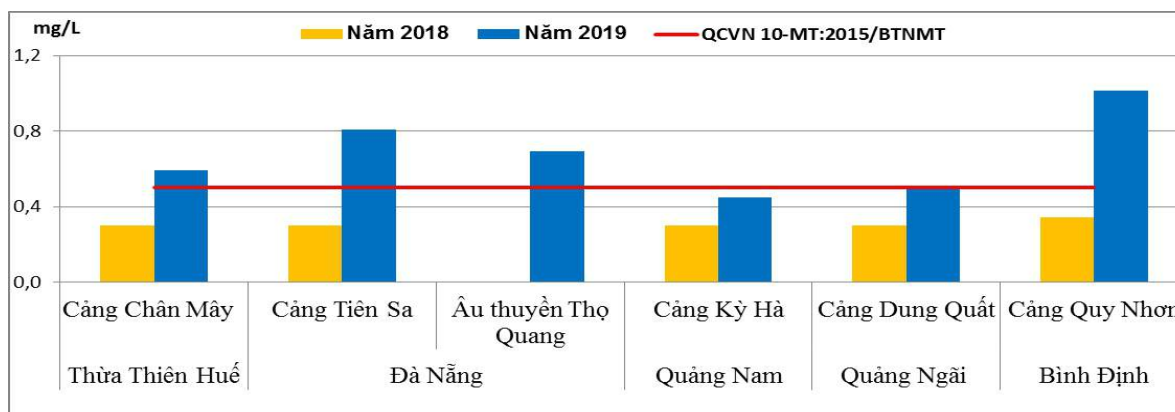


Figure 6. Total concentratoin of oil and grease in the Central seaport area in the period of 2018 – 2019

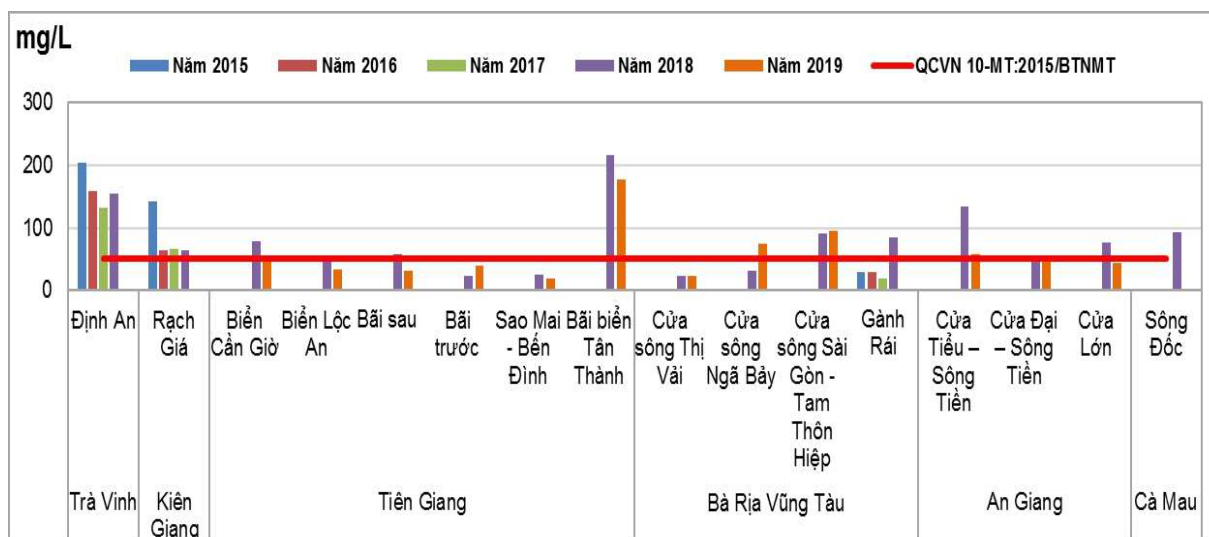
(Source: Vietnam Environment Administration, 2019).

The environmental quality of coastal seawater at the beaches is quite good. The monitoring results of the VEA at the beaches in the years 2018 - 2019 show that the parameters in Da Nang was within the limits of QCVN 10-MT: 2015/BTNMT at the beach areas.

In conclusion, the coastal sea water quality in Da Nang has exceeded the high threshold at Au Thuyen - Tho Quang seaport. The quality of the beach area is of good quality.

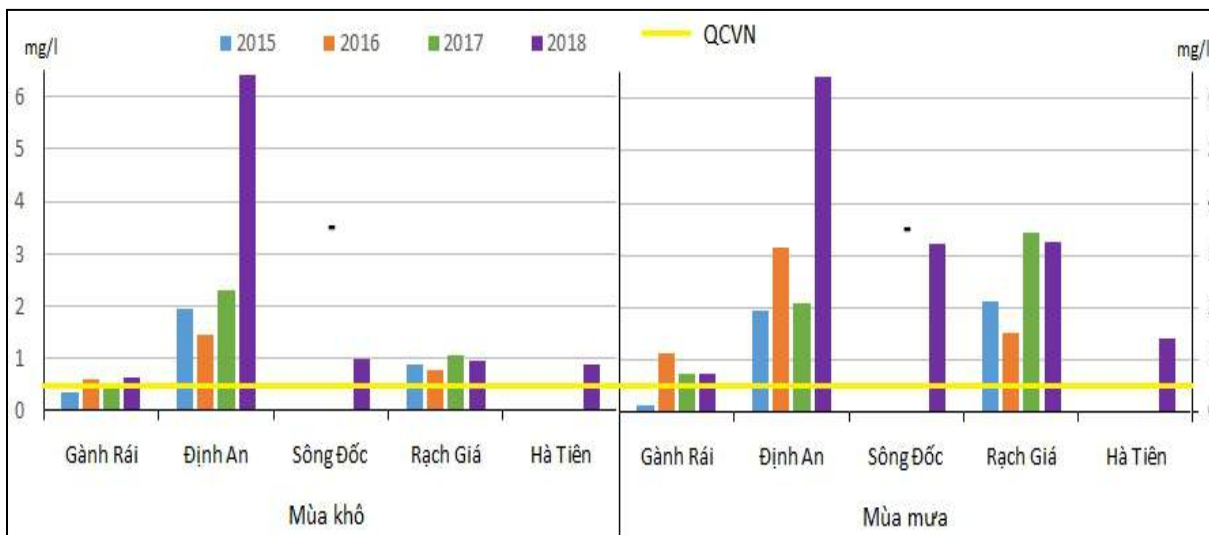
## Vung Tau

Due to the natural characteristics, the coastal waters in the Southern region were strongly affected by the coastal estuary system (not affected by the dike system), so the silt concentration in the coastal seawater was quite high. The concentration of TSS and Fe parameters were high, exceeding the allowable limit of QCVN 10-MT:2015/BTNMT and increasing in the rainy season.



**Figure 7. TSS concentration in the Southern coastal area in the period 2015 - 2019**

*Source: Vietnam Environment Administration (2019)*

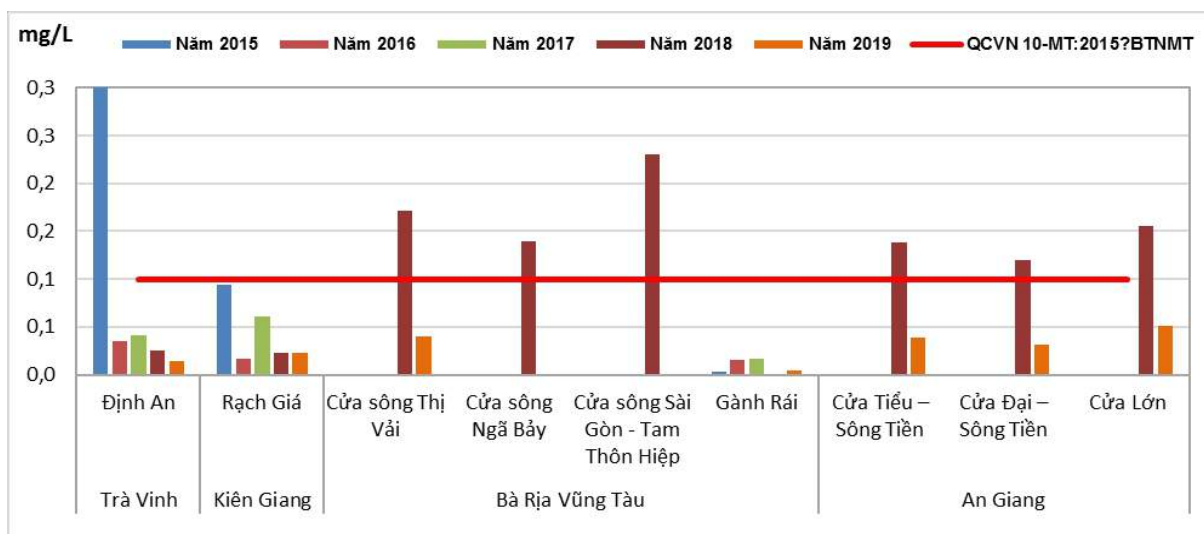


**Figure 8. Giá trị Fe concentration in sea water in the southern region, period 2015 – 2018**

*Source: Vietnam Environment Administration (2019)*

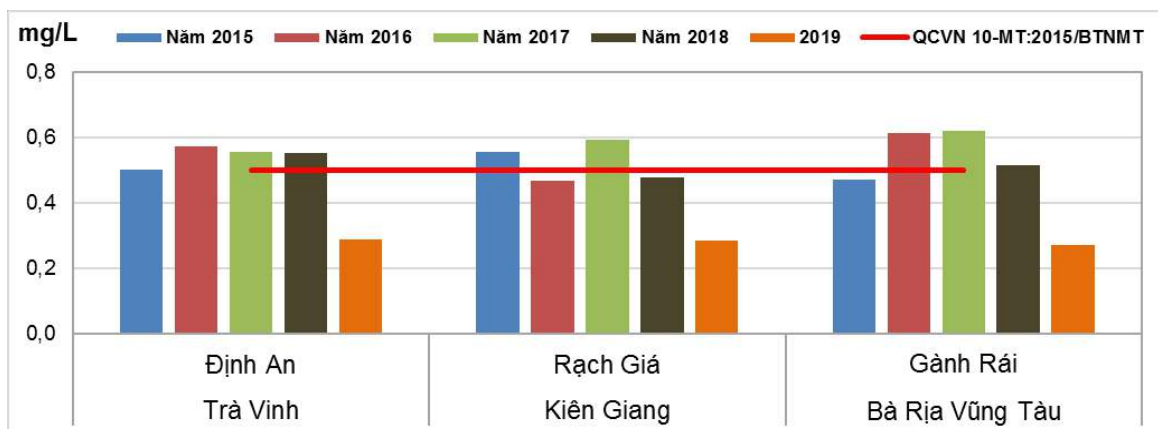
Monitoring results in 2018, along the localities in the lower Mekong basin, recorded at estuaries in Vung Tau: Thi Vai, Nga Bay, Saigon, high  $\text{NH}_4^+$  parameter values, exceeding the threshold of QCVN 10-MT:2015/BTNMT (standard for Aquaculture and aquatic conservation areas). However, by 2019,  $\text{NH}_4^+$  concentration at estuaries decreased sharply and were within the allowable limit.





**Figure 9.  $\text{NH}_4^+$  concentration in some coastal estuaries in the Southern region in the period 2015 - 2019**  
Source: Vietnam Environment Administration (2019)

In Vung Tau (Ganh Rai) in the period of 2015 - 2018 recorded total mineral oil and grease in the seawater environment, the value met or slightly exceeded the allowable threshold of QCVN 10-MT:2015/BTNMT (standard for aquaculture areas, fisheries, aquatic conservation). However, by 2019, the total of mineral oil and grease dropped sharply, within the allowable threshold.



**Figure 10. Total mineral oil and grease in the Southern coastal area in the period of 2015 - 2019**  
Source: Vietnam Environment Administration (2019)

For the beaches in Vung Tau, the sea water environment was quite clean, there were no signs of pollution, the monitoring and analysis parameters are all within the thresholds specified by QCVN 10-MT:2015/BTNMT.

In conclusion, the results of sea water quality monitoring Vung Tau showed that in the aquaculture area (Ganh Rai), the concentration of Coliform, TSS, Fe parameters (rainy season), total mineral oil,... were high, exceeding allowable limit of QCVN 10-MT:2015/BTNMT for the rainy season in 2017. The  $\text{NH}_4^+$  concentration was high, exceeding the limit in 2018. However, the water quality has improved and was within acceptable limits in all areas in 2019. The beach area in Vung Tau was within the threshold of QCVN 10-MT:2015/BTNMT

### **3/ Challenges and lessons learnt in implementing the NAP in Vietnam during 2008-2021**

#### **Challenges:**

- Although the rate of pollution, environmental degradation, natural resource and biodiversity loss has been controlled, it is still complicated, in some places and areas still at an alarming rate; Especially emerging is pollution in some river basins, craft villages, air pollution in some big cities
- Infrastructure for environmental protection, although invested, is still lacking and weak, not meeting the requirements of reality.
- The volume of generated solid waste and hazardous waste is increasing, the composition structure is complicated, while the management capacity at local is still limited. The rate of daily-life solid waste collection and treatment in rural areas has just reached 66%; More than 80% of landfills are unsanitary. Many types of industrial waste, hazardous chemicals, and residual pesticide packaging, which have not been thoroughly or unsatisfactorily treated. The separation of domestic solid waste at source has not been carried out in the past period and is now just starting to prepare the necessary conditions for implementation in the spirit of the Law on Environmental Protection 2020.

#### **Lessons learnt:**

- Environment is a condition, foundation and prerequisite for sustainable socio-economic development; environmental protection is both a goal and a task, which should be placed at the center of development decisions. Economic development must be in harmony with nature, respect the laws of nature, do not trade the environment for economic growth.
- Environmental protection is the responsibility of the whole political system and the whole society, in which local authorities, businesses, communities and people play an important role. Environmental protection must be based on close, synchronous and unified coordination among all levels and sectors, taking advantage of opportunities of international integration and cooperation.
- Land-based pollution control must be based on institutional quality improvement and effective and effective law enforcement
- Concentrating on environmental management of industrial parks, industrial clusters and craft villages; resolutely review the requirement to have a centralized wastewater treatment system, for large-scale waste dischargers, to install a system of equipment to control and monitor discharge activities; apply sanctions for establishments causing environmental pollution to comply with requirements on environmental protection to implement the technology conversion roadmap
- Increasing the mobilization of resources in the society in combination with increasing budget expenditure; effectively apply the principle that polluters must pay treatment costs and compensation, beneficiaries of environmental values must pay; continue to promote the participation of businesses, organizations, communities and people in environmental protection.

### **4/ Brief on coordinating national activities and contributing regional activities in next 2 years, 2023-2024**

- Introduction of Specialised Executing Agency on Land-based Pollution in Vietnam: Not identified
- Outline on National Working Group on Land-based Pollution: No available
- Nomination of experts for database and modelling for participation in regional activities: To be done
- Recommendations: