

Oil spill preparedness and response in Vietnam: current status and recommendations

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1. Overview

This presentation aims at providing a panorama of Vietnam in setting up the national oil spill response system, the legal framework and achievements obtained through international cooperation in enhancing national and local capacity in oil spill preparedness and response. Based on my personal opinion, I also bring out some challenges and propose recommendations to improve the oil spill preparedness and response effectiveness of Vietnam.

My presentation consists of 7 parts which are listed as below:

- Overview of Vietnam with regard to oil spill
- Oil spill response system in Vietnam
- Domestic Legal documents relating to oil spill response
- International cooperation in oil spill response
- Enhancement of local capacity in oil spill response
- Challenges
- Recommendations

2. Overview of Vietnam with regard to oil spill

Vietnam is located in South East Asia and has a long coastline of 3,260km with the territorial water of over 1 million km² and more than 3,000 islands. The country has a dense network of river system with more than 2,360 rivers with total length of more than 42,000 km. In addition, heavy transport, storage, transfer and distribution activities of crude oil and refined oil take place in the thick inland waterway network, this poses a threat of oil spill incident to occur in river and coastal area.

Oil and gas exploration and production activities in Vietnam is bustling because petroleum industry plays a vital role in national economy, contributing about 30% to the State budget. With a view to increasing oil and gas reserve and discovering new fields to meet domestic demand and export, Vietnam Oil and Gas Group (Petrovietnam) has been carrying out effective exploration

and production of oil and gas both at home and abroad. During the last year, Petrovietnam conducted survey and acquisition of over 12,500 km 2D and 5,600 km² 3D seismic in accordance with the signed contracts and general exploration programme for exploration and appraisal of oil and gas potential in structures. Petrovietnam drilled 82 wells, among them 11 for exploration, 10 for appraisal, 61 for production and some others for water injection and well-to-well connection with the total drilling length of 222,000m, thus increasing the risk of oil spills.

Vietnam borders the South China Sea, in Vietnam we call it the East Sea. “Each year, more than half of the world’s annual merchant tonnage passes through the South China Sea as well as a third of the global trade in crude oil and over half of LNG trade” (Forbes writer Gordon G. Chang). We are all aware that ships pose a threat of oil spill with low probability of occurrence but high potential effects on the environment.

From the above-mentioned analysis, we can conclude that Vietnam is vulnerable to oil spill, both offshore and in-river.

3. Oil spill response system in Vietnam

The Vietnamese oil spill response system was established based on Prime Minister Decision No. 129/2001/QD-TTg dated 29 August 2001 approving national plan on oil spill response in the 2001-2010 period and Prime Minister Decision 02/2013/QD-TTg dated 14 January 2013 promulgating the oil spill response regulation. The National Plan divides the country into three regions: the Northern region, the Central region and the Southern region:

- The Northern region, covering all the northern provinces and cities southward to the end of Quang Binh province; the entire sea area in Tonkin Gulf within the scope of coping with oil spill incidents stretching to parallel 17⁰10’ North.
- The Central region, covering all the provinces and cities of the Central Vietnam from Quang Tri province to Ninh Thuan province’s southernmost point; the entire sea area within the scope of coping with oil spill incidents from parallel 17⁰10’ North to 11⁰20’ North.
- The Southern region, covering all the southern provinces and cities from Binh Thuan province to Ca Mau and Kien Giang provinces’ southernmost points; the entire sea area from parallel 11⁰20’ North, stretching southward, to the southern limit of this national plan’s scope of coping with oil spill incidents.

There is a regional oil spill response center in each region. The regional centers shall be organized and operate under the statute of public-utility State enterprises with professional response forces acting as core units fully qualified and ready to perform the task of combating oil spill incidents within their assigned areas. All three regional centers are under direction of Vietnam National Committee for Search and Rescue (Vinasarcom) for those tasks related to oil spill response.

The Oil Spill Response Regulation states that National Oil Spill Response System is divided into 3 levels: grassroots (industry), regional and national level with specific responsibilities, corresponding to 3 resources: governmental, provincial and private industry resources.

3.1. Governmental resources

Vinasarcom is responsible for combating oil spill incidents at national level. In recent years, in order to improve oil spill response capacity, three regional centers have invested and put into operation many oil recovery vessels and oil spill response equipment and bases with details as follows:

- Oil recovery vessels: 07 offshore vessels, 01 river vessel
- Oil recovery devices: 08 devices
- Oil boom: 9,000m
- Oil spill response base: 04 bases
- Shoreline Cleanup equipment

3.2. Provincial resources

In Vietnam, there are 28 coastal provinces; each with its own contingency plan. The local authorities are responsible for dealing with acute spills that may occur within the province and exceed the response capacity of private industry. However, up to now, there are no provinces in Vietnam that has oil spill response equipment because of the lack of financial source and professional personnel in using and maintaining the equipment. If there is acute spill within the province, provincial authorities often asks for assistance from regional oil spill response center as well as Vietnam National Committee for Search and Rescue to combat the spill at sea. Additionally, provincial authorities can mobilize manpower to conduct the cleanup activities.

3.3. Private industry resources

According to legal requirements, there are many organizations who are obligatory to have oil spill contingency plan, these includes oil companies who carry out offshore drilling campaign, refineries, ports, oil tankers, ships, companies trading refined oil, thermal power plants, etc. These organizations have to sign service contract with oil spill response service providers or to procure adequate equipment with well-trained personnel capable of operating the equipment. In terms of oil spill response service, Petrovietnam Drilling and Well Services Corporation is the main service providers in Vietnam with market share of about 90%. Some companies such as Petrolimex, Vietsovpetro also purchase oil spill response equipment but they are used mainly to support their own activities. There also some other small service providers who are capable of dealing with river small spills.

4. Domestic legal documents relating to oil spill

4.1. Law on environmental protection

Oil spill response is referred to in Chapter VII “Protection of marine environment, river water and other water resources”, more detailed in Article 57 “Marine Environmental Pollution Control and Treatment” and Article 58 “Organization of Marine Environmental Incident Prevention and Response”.

4.2. Prime Minister Decision No. 129/2001/QĐ-TTg approving national plan on oil spill response in the 2001-2010 period

According to this Decision, Vietnam is divided into three regions of oil spill response: the Northern, the Central and the Southern. This sets the foundation for the establishment of 3 regional oil spill response centers.

Other main contents of this Decision are the classification of oil spill incidents according to the volume of spilled oil and the system and operation mechanism of oil spill response levels. However, these contents are replaced by Prime Minister Decision No. 02/2013/QĐ-TTg.

4.3. Prime Minister Decision No. 02/2013/QĐ-TTg promulgating the regulation on oil spill response

This Decision is the most important legal document in Vietnam relating to oil spill preparedness and response. The main contents of this document are as follows:

- ❖ Classification of 3 levels of oil spill response: Grassroots level, Regional level, National level
- ❖ Classification of 3 Tiers of Oil Spill Incidents: Tier I (20 tonnes), Tier II (20 – 500 tonnes), Tier III (over 500 tonnes)
- ❖ Oil spill preparedness:
 - ✓ The development, appraisal and approval of Oil Spill Contingency Plan (OSCP) at grassroots level, provincial level, national level: Provincial People’s Committee approves OSCP at grassroots level, Vietnam National Committee for Search and Rescue approves OSCP at provincial level and Prime Minister approve OSCP at national level.
 - ✓ Oil spill response capacity building: organizations that may cause oil spill incident have to make investment of oil spill response equipment or to sign oil spill response service contract with service providers or oil spill response regional centers.

- ✓ Regular training and exercise: Provincial People's Committee is responsible for conducting regular training course on oil spill response for provincial environmental officers and persons in charge of oil spill response from companies that may cause oil spill incident; regional centers are responsible for organizing training on oil spill response according to training plan approved by Vietnam National Committee for Search and Rescue; Vietnam National Committee for Search and Rescue is responsible for conducting national oil spill response exercise.
- ❖ Oil spill response:
 - ✓ Oil spill notification and report in oil spill response
 - ✓ Oil spill response at grassroots level, provincial level, national level: the polluter is responsible for mobilizing resources to combat oil spill. If the spill exceeds the response capacity of the polluter, the provincial People's Committee is responsible for spill response, mobilizing response resources of regional center and other organizations based in the province to deal with the spill. In case the province is not capable of combating the spill, the provincial People's Committee will report to the Vietnam National Committee for Search and Rescue for direction and cooperation with relevant agencies in organizing the response. If the oil spill goes beyond the response of domestic resources, the Vietnam National Committee for Search and Rescue shall propose the Prime Minister to consider and decide on the request for international assistance.
- ❖ Procedures of settlement of oil spill consequences (claims and compensation): identify damages caused by oil spill incidents; identify who make compensation: polluters pay principle, for "mysterious spills", the government pays for oil spill response related cost.
- ❖ Specify responsibilities of all stakeholders in oil spills:
 - ✓ Vietnam National Committee for Search and Rescue: guiding the development of OSCP at provincial level; approving provincial plan; responsible for oil spill response at national level.
 - ✓ Ministry of Natural Resources and Environment: guiding the use of dispersants in oil spill response, promulgating the list of approved dispersants to be used in Vietnam waters; guiding the development of ESI Map used in oil spill response.
 - ✓ Ministry of National Defense: coordinating with Vietnam National Committee for Search and Rescue in mobilizing resources from Navy, Air Force, Marine Police, Border guard and other military forces in oil spill response.

- ✓ Regional oil spill response centers: being specialized and main forces in combating oil spill in designated area and in other areas as assigned by Vietnam National Committee for Search and Rescue; providing assistance to localities in developing provincial OSCP; organizing annual training course on oil spill response and seminar/workshop on sharing experiences in developing provincial oil spill contingency plan as well as appraising the plan at grassroots level to provincial officers in charge of oil spill response in the region.
- ✓ Provincial People's Committee: Implementing the provincial Plan; approving the Plan at grassroots level and inspecting the implementation of the Plan; directing the organization of training course in oil spill response in the province.
- ✓ Organizations at grassroots level: Developing the Plan at grassroots level and submit to Provincial People's Committee for approval; conducting the investment of oil spill response equipment or signing contract with oil spill response service provider.

4.4. Decree 95/2010/ND-CP on licensing of and cooperation with foreign search and rescue forces in Vietnam

The main contents of this document are as follows:

- ❖ The process of approval of participation of foreign search and rescue forces: Ministries/State agencies propose to the Vietnam National Committee for Search and Rescue, the Vietnam National Committee for Search and Rescue reports to Prime Minister on proposals and notify Prime Minister's opinions to Ministries/State agencies.
- ❖ Licensing agencies:
 - ✓ Ministry of National Defense: Foreign military vessels and boats, Foreign military aircraft and unmanned aircraft, foreign search and rescue means to operate in areas banned from or restricted for operation at sea: aircraft to land and take off in military airports and flight restricted or dangerous areas.
 - ✓ Ministry of Transport: the rest of foreign search and rescue forces and means.
- ❖ Coordination in licensing:
 - ✓ Ministry of Foreign Affairs: to receive proposals and notify licensing decisions to countries and international organizations
 - ✓ Ministry of National Defense and Ministry of Transport: to grant and notify licensing decisions to the Vietnam National Committee for Search and Rescue, Ministry of National Defense.

- ✓ Ministry of Public Security: To grant entry and exit visa (if any) to foreigners accompanying search and rescues means licensed by competent agencies to operate in Vietnam.
- ✓ Ministry of Information and Communications: To license foreign search and rescue forces operating in Vietnam to use radio frequencies and transmitters
- ✓ The Vietnam National Committee for Search and Rescue: To give opinions for concerned ministries and branches to fulfill their licensing responsibilities.

5. International cooperation in oil spill response

5.1. The Joint Statement on Partnership in Oil Spill Preparedness and Response in the Gulf of Thailand (GOT Program)

With the assistance from Partnership in Environmental Management for the Seas of East Asia (PEMSEA), The Joint Statement was signed by Cambodia, Thailand and Vietnam on 6th January, 2006 in Hanoi.

Based on the Joint Statement, the three participating countries agreed on the Framework Program to implement the Joint Statement with the main contents as follows:

- ❖ Designation of National Oil Spill Response Center (NOSRC) who is the national oil spill preparedness and response organization as specified in the national contingency plan: Cambodia appointed General Transport Department under Ministry of Public Works and Transport, Thailand appointed Marine Department, Ministry of Transport, Vietnam appointed the Vietnam National Committee for Search and Rescues.
- ❖ Designation of National Contact Point who is responsible for coordinating the flow of information of all activities in the event of a major spill when the spill threatens the jurisdictional waters of other Participating Countries and an affected Participating Country requests assistance from other Participating Countries and a request for assistance is made by any of the Participating Countries: same as NORSC.
- ❖ Reports, alerts and communications: A Participating Country in whose zone a spill or a serious spill threat occurs shall immediately inform any of the other Participating Countries if a spill threatens the jurisdictional waters and coastlines of other Participating Countries giving as much detail as possible of the incident using the standard Pollution Report (Pole) format agreed by 3 countries.
- ❖ Training and information sharing:
 - ✓ Training: Participating countries are encouraged to provide training opportunities in oil spill prevention, preparedness and response to other participating countries as a way of technical assistance and support.

- ✓ Information sharing: participating countries jointly develop information sharing system to be posted on website www.got-pemsea.com with the main content consisting of member country, national focal point, concerned agency, sensitivity resources map, response equipment, oil spill response expert, news.
- ❖ Mutual assistance in response: In the event of an oil spill incident, the affected participating country may seek assistance from other Participating Countries, the private sector or industry. Assistance includes information on response strategies and other relevant information and the engagement of specialist personnel, equipment, material and consumable items, vessels, aircrafts and other vehicles. Participating countries should mutually agree on the rental charges for the use of vessels, aircraft, equipment/ labor cost/ materials.
- ❖ Resources available: Each Participating Country shall provide a list of all equipment, crafts and support services that can be made available and this list should be updated whenever there is any change.

Movements of personnel, crafts, and equipment between the parties: The requesting Participating Country shall facilitate entry and exit of personnel, crafts and equipment, and expedite all diplomatic, customs and immigration formalities and undertake measures to ensure the safety of personnel and provide for the necessary medical treatment for the injured or sick personnel.

- ❖ Reimbursement procedures: three participating countries agreed on the Daily Work Format, this Format together with associated supporting documents are served as a basis for reimbursement.
- ❖ Joint Oil spill response exercises: According to the Framework program, joint oil spill response exercises involving two or three Participating Countries should be conducted every two years. However, no such exercise has been organized so far, only table-top exercises have been conducted during NCP Meeting.
- ❖ Coordination: Each Participating Country on a rotational basis should host the annual session of the NCPs Meeting. To date, 7 NCPs Meetings have been held. The main objective of NCPs Meeting are: (i) to report on country initiatives to support the Implementation of the Framework Programme for Joint Oil Spill Preparedness and Response in the Gulf of Thailand; (ii) to share experiences and good practices in building capacities for oil spill response planning, operation and compensation; and (iii) to identify programs and activities that can be jointly implemented by 3 participating countries, discuss opportunities for collaborative initiatives in the GOT and to discuss possible partnership arrangements.

5.2. The ESI Mapping in the Gulf of Thailand project

The project is funded by the Korean government through the Korean International Cooperation Agency (KOICA) and implemented by the International Maritime Organization and PEMSEA. This initiative is in support to the Framework Program for Joint Oil Spill Preparedness and Response in the Gulf of Thailand.

The specific objective of the project is to develop Gulf of Thailand sensitivity maps for planning and response to oil spill incidents covering the coastal and marine resources of the Gulf, existing economic activities along the coast and offshore and gazetted areas, as well as locations of emergency services, spill response equipment and related services.

The project has been successfully implemented and the Final Workshop of the project was conducted in the Philippines from 5-6 December, 2013. The main output of the project are: (i) the final report on ESI mapping with scale of 1/50,000; and (ii) Set of ESI maps (GOT Atlas) with scale of 1/50,000 the GOT (A0 size, laminate layer).

5.3. The Memorandum of Agreement between Vietnam and the Philippines on cooperation in oil spill preparedness and response

The MOA was signed on 26th October, 2010 in Hanoi on the occasion of the official visit of the President of the Philippines to Vietnam.

The MOA's fields of cooperation consist of the following:

- ✓ Human resources development: personnel exchange, visit, conference, joint training exercises and the grant of technical and administrative assistance on oil spill and marine environmental protection.
- ✓ Mutual assistance: cooperation on combating oil and noxious substances spill, and the prevention of pollution from ship, offshore facilities, ports and other oil transportation facilities.
- ✓ Information exchange: exchange of cooperation for oil spill preparedness and response through the establishment of focal points and through exchange of visits or joint meetings at various levels.
- ✓ Research and development: exchange of expertise, experiences relating to oil spill combating and the preservation of marine resources.
- ✓ Other fields of cooperation: related to recent developments in the MARPOL Convention and other national laws, rules and regulations implemented by the Contracting Parties.

Vietnam approved the MOA in February 2011 and approved the MOA Implementation Plan in October 2011 while the Philippines ratified the MOA in 2012. Based on the MOA

Implementation Plan, NASOS and the Philippine Coast Guard has successfully set up a contact channel in May 2013 and expectedly the 2 countries will conduct a Kick-Off meeting in 3rd quarter of 2014.

6. Enhancement of local capacity in oil spill preparedness and response

It is essential that all people in charge of oil spill response at 3 levels are qualified by attending the proper training in oil spill response. Besides, participating in regular exercises plays an important role in keeping the competence of responders, on scene commanders and decision makers in combating oil spill incidents.

6.1. Exercises

In Vietnam, the three regional centers conduct regular exercises twice a year, the exercises involve the centers' leaders, operation and base managers, on scene commanders and responders. For private sector, PV Drilling as a service providers holds annual exercise both near shore and offshore for the customers who are oil companies operating in Vietnam, at least once per year for each client.

With regard to the national exercise chaired by the Vietnam National Committee for Search and Rescue, so far Vietnam has just conducted once in 2002 and the next national exercised is planned to organized in 2015.

6.2 Training

Annually, each regional centers hold at least one training course for provincial officers in the designated area. The course normally lasts 3 days in which 02 days of lectures and 01 day of practical training. However, the structure and content of the training course have not been standardized yet. Therefore, the Vietnam National Committee for Search and Rescue is now developing the standard content of oil spill response training course at different levels of participants in Vietnam with consultancy from NASOS.

Moreover, the Vietnam National Committee for Search and Rescue so far has organized one training course for military officers who participate in oil spill response. The course mainly focused on overview of oil spill response and its environmental impact on the environment and how to conduct shoreline cleanup activities safely and effectively.

The authorities of coastal provinces also holds 1-day training course for their own environmental officers from provincial level to commune level, the course concentrates on legal regulations on oil spill preparedness and response and shoreline cleanup method.

For private sector, as a task specified in the service contract, PV Drilling also holds basic training course on oil spill response for HSE officers of the oil companies.

7. Challenges

Although Vietnam has done a lot to enhance the capacity in oil spill preparedness and response at all levels from the national to local and grassroots ones. Based on my personal opinion, Vietnam still faces some challenges as follows:

- ✓ The oil spill response capacity is limited, especially at provincial level. According to legal requirement, those organizations that can cause oil pollution have to sign service contract with oil spill response service providers or to procure adequate equipment with well-trained personnel capable of operating the equipment. However, only big industrial plants, major companies trading refined oil and oil companies comply with the regulation. This leads to the fact that many coastal provinces are not well prepared for combating oil spill due to the lack of equipment and vessels available for response in the locality.
- ✓ According to Vietnam laws, only vessels with gross tonnage of over 1,000 tonnes are obligatory to buy civil liability insurance but the insured amount is not clearly defined. Additionally, Vietnam is a member of Civil Liability Convention 1992, not yet a member of 1992 Fund and the Supplementary Fund. These result in the lack of financial guarantee to ensure compensations for damages and loss caused by oil spill incidents as well as for recovery of oil spill response related costs.
- ✓ Although Vietnam has issued the Decree on licensing of and cooperation with foreign search and rescue forces in Vietnam which specifies the responsibility of relevant government agencies, there is still the lack of detailed procedures and forms to mobilize foreign forces into Vietnam to support in search and rescue in general and oil spill response in particular.
- ✓ According to legal requirements, only dispersants already registered and approved by Ministry of Natural Resources and Environment are allowed to be used. However, the list of dispersants allowed to be used in Vietnam waters and detailed regulation on dispersant use in oil spill response has not been promulgated. This means that in reality, the chance to use dispersants in oil spill response in Vietnam waters is hardly possible.

8. Recommendations

Based on the above-mentioned challenges and from personal point of view, some recommendations are proposed as follows:

- ✓ It is necessary to promulgate the regulation on dispersant use as soon as possible and the list of approved dispersants to be used in Vietnam should be “open”. It means that Vietnam besides those dispersants by Vietnam authorities, Vietnam should take into consideration the permission for those dispersants already approved by other developed

countries such as the United States, Japan, Norway, United Kingdom, Australia, etc. to be used in Vietnam.

- ✓ The national oil spill response exercise should be conducted on a periodical basis (every 3 years). This will help to keep a high level of preparedness as well as to test the readiness of governmental contingency organizations to combat oil spill incidents occurring in a large area or causing serious impact on nation-wide scale.
- ✓ Procedures, forms and deadline for relevant ministries to approve the mobilization of foreign oil spill response forces into Vietnam should be published soon. This will expedite the participation of foreign experts, equipment, vessels, etc. in oil spill response in Vietnam, thus reducing the damages of the oil pollution on the environment, property and the economy.
- ✓ The governmental response organizations may be crucial in responding to big incidents occurring offshore but they may not be effective if the spill is near-shore or in rivers because they are not present in all coastal provinces in Vietnam. Therefore, the oil spill preparedness and response will be enhanced and more comprehensive with the participation of services providers from the private sector. However, profitability is essential for private sector to consider before making decision on setting up new business while environmental services usually not be so “attractive” in terms of profitability. Thus the government should give business incentives to private enterprises providing oil spill response services.
- ✓ Strengthening the regular inspection of business who may cause oil spill incident and is obligatory to develop contingency plan and to sign service contract with oil spill response service providers or to procure adequate equipment with well-trained personnel capable of operating the equipment. This will help to ensure the strict implementation of government regulation on oil spill response and to reduce the risk of oil pollution as well as to minimize damages caused by oil spills because prevention is better than cure.