



**Final Report prepared by**

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**for Norad:**

**End-Review of the project entitled**

**“Development of Management Systems on Safety and Working  
Environment and Environment Pollution in the Vietnamese  
Petroleum Industry”**

**Oslo, 11 June 2012**

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## **KEY ABBREVIATIONS:**

AdeB:	Arntzen de Besche Advokatfirma AS
DNV:	Det Norske Veritas
HSE:	Health, safety and environment (including both the natural environment and the working environment)
MOIT:	Ministry of Industry and Trade
MONRE:	Ministry of Natural Resources and Administration
MFA:	Ministry of Foreign Affairs
NCA:	Norwegian Coastal Administration
Norad:	Norwegian Development Agency
NPD:	Norwegian Petroleum Directorate
OECD-DAC criteria:	Criteria for evaluation of development programmes and projects developed by the Development Co-operation Development Directorate of the Organisation for Economic Co-operation and Development
OfD:	Oil for Development Programme
Project:	The project entitled Development of Management Systems on Safety and Working Environment and Environment Pollution in the Vietnamese Petroleum Industry
PSA:	Petroleum Safety Authority
PSU:	Project Support Unit
PVEP:	PVN Exploration Production Corporation
PVN:	PetroVietnam Oil and Gas Group
SC:	Steering Committee
ToR:	Terms of Reference

## **APPENDICIES**

Appendix 1:	Terms of Reference
Appendix 2:	List of Key Documents Reviewed
Appendix 3:	Final Schedules of all Meetings and Interviews conducted
Appendix 4:	Overview of the Main Sub-Contractors used in Phase I and II
Appendix 5:	Overview of Activities for each Phase
Appendix 6:	Use of Resources
Appendix 7	Overview of questions posed and answers received in relation to the draft report



## **1 EXECUTIVE SUMMARY**

### **1.1 Background**

The Project “Development of Management Systems on Safety and Working Environment and Environment Pollution in the Vietnamese Petroleum Industry” was initiated in 1996 and ended in 2012. It has been running in three phases and has been encompassed by the OfD programme since its inception in 2005. The implementing parties on the Norwegian side have been the NPD (later the PSA), SFT (later Klif) and the NCA, and their Vietnamese counterpart has been PVN. In total, Norway has contributed with approx. NOK 54.125.000 on the Project.

The main activities performed during the End-Review of the Project have been meetings and interviews with involved and relevant personnel in the institutions and entities involved, as well as review of project documents such as plans, budgets, reports, minutes and correspondence.

### **1.2 Main Findings**

The main finding from our End-Review of the Project is that there is a strong commitment to HSE within PVN. This commitment appears to imply willingness to strive towards continuous improvements within the HSE area through further development of the HSE management systems and to learn from the experiences of others. It is our impression that there is now a well-established “HSE culture” within PVN.

This impression is strengthened by the fact that both the Industrial Safety Techniques & Environment Agency of the MOIT and PVN mentioned the possibility to “transfer” the experiences and results from the Project to other parts of PVN and to other industry sectors in Vietnam. Based on some of the interviews, we were left with the impression that this to a certain extent is already taking place.

Another finding is that the personnel we met within PVN demonstrated an advanced approach to the importance and significance of an HSE strategy which is broadly implemented within the company. All interviewees have been very positive and the Project is in general described as a success story. As an illustration, in some of the meetings we were shown data that demonstrated a declining curve for key performance indicators such as accidents and incidents per man-hour/year over the last years.

We observed homogenous features within PVN and its subsidiaries which, in our opinion, indicates a uniform and systematic approach to HSE reasoning and regulation. These features are amongst other demonstrated by the fact that the same management systems are implemented in different parts of PVN, and that there is a common description of HSE status applying the same concepts across those departments and subsidiaries of PVN with whom we met.

Also for the part of the Project that has been related to the natural environment, such as development of a regulatory framework, oil spill response and pollution control, is our understanding that all major deliverables have been completed. From the interviews and meetings we have performed during the End-Review it seems that there is a high awareness in PVN that measures directed against safeguarding the environment are an integrated part of the HSE management system.

Furthermore, it is our understanding that the Project has been adaptable to the development of PVNs organisation and competencies throughout its different phases. This is demonstrated through what appears to be a gradual development from relatively active Norwegian involvement in the Project

management in Phase I to increasingly Vietnamese dominated Project management in the later Phases. This impression could perhaps have been even stronger if MOIT had been more actively involved in the Project as from the reported transfer of regulatory authority from PVN to MOIT in 2005.

### **1.3 Key Success Factors**

The interviewees emphasise the following elements as key success factors:

- The Project was organized under a comprehensive management model. The establishment of the SC to ensure progress and efficiency in the implementation of the Project is described by many as a success which is attributed to its' composition of representatives from the top management of the parties involved, their interest to drive the Project forward, the fact that they had the decision-making powers to do so and the frequency of the SC meetings.
- The Project has been running for a long time; this has been indicated as a necessity to ensure that the work is carried forward and to allow sufficient time to create understanding of modern HSE principles and to implement an HSE management system. The long Project period increases the possibilities for the impact and sustainability of the Project.
- The ownership that PVN has had to the process related to the initiation, management and implementation of the Project as from involvement in project proposals to detailed planning of activities to be carried out under the Project has ensured continued relevance and is assumed to have promoted effectiveness.
- The way that PVN, with its knowledge of the Vietnamese petroleum industry and context, has been clear on the desired goals and outcomes of the Project throughout the Project period has ensured relevance.
- Dedicated involvement of those working with the Project, especially the Project leaders, all of whom have developed good communication and demonstrated cultural understanding and interest in the culture and country of their respective counterparts has contributed to its success.

Many of the above elements have also been pointed out in previous reports/reviews.

### **1.4 Lessons learned**

Some of the interviewees raised critical voices over a few issues that could have been handled differently in order to produce improved results for the Project:

- Vietnamese personnel could have been more involved in the earlier phases, in order to get the most out of the experience transfer.
- Practicalities in relation to invoicing and accounting standards could have been agreed in more detail to enhance budget monitoring and efficiency of the Project management.
- Some of the personnel that have received training through the Project have shifted positions within PVN and this challenges sustainability. PVN needs to address this to secure and ensure sustainability.

On the basis of the interviews conducted and documents reviewed, we have noted some issues that relate to the impact of the Project where there seem to have been room for improvement:

- According to the Project name and goals, the aim has been to develop managements systems on safety and working environment and environment pollution in the Vietnamese petroleum industry. However, it seems to us that the safety side of the Project has focused almost solely on PVN and not on other parts of, or stakeholders within, the Vietnamese petroleum industry.

This might not be contradictory to the goals as PVN seem to be close to synonymous with Vietnamese oil and gas industry, and was even more so in the first phases of the Project.

- MOIT could have been more involved in Phase III of the Project, which could have softened the impression mentioned in the above bullet point.

As a final remark, several of the interviewees brought up the issue of a possible continuation of the Project into a phase IV. Some stated that there is clear need to train more personnel and to expand on the training programs, including capacity building within MOIT in relation to inspection and audits, and some stated that there is a need to further develop and update the regulatory regime.

## 2 INTRODUCTION

### 2.1 The Project – key facts

The Project “Development of Management Systems on Safety and Working Environment and Environment Pollution in the Vietnamese Petroleum Industry” was initiated in 1996 and is to be ended in 2012. It has been running in three phases<sup>1</sup> and has been encompassed by the OfD programme since its inception in 2005. The implementing parties on the Norwegian side have been the NPD (later the PSA) and SFT (later Klif/NCA) and their Vietnamese counterpart has been PVN.<sup>2</sup> In total, Norway has contributed with approx. NOK 54.125.000 on the Project.<sup>3</sup>

### 2.2 The assignment: Conducting an End-Review

In February 2012, AdeB was awarded a contract from the Norad to conduct an End-Review of a project entitled the Project. The ToR for the assignment is attached as Appendix 1.

The Project has been carried out in three phases, all of which shall be subject to this End-Review.<sup>4</sup> The Scope of Work as provided in the ToR comprises five main elements for evaluation which reflects the OECD-DAC criteria: relevance, effectiveness, efficiency, impact and sustainability.<sup>5</sup> The purpose of the End-Review is stated in the ToR as follows:

*“The purpose of the End-Review is to assess to which extent the OfD programme<sup>6</sup> in Vietnam has achieved its objectives and assess broader impact of programme activities. The End-Review shall also identify lessons learned and key success factors which may be useful in the implementation of similar OfD programmes“*

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<sup>1</sup> Each phase is described in more detail in items 4.2, 4.3 and 4.4 respectively.

<sup>2</sup> See item 4.1.2 for a description of the implementing parties and an explanation of the change in parties on the Norwegian side.

<sup>3</sup> See item 4.1.6.

<sup>4</sup> This is not the only review of the Project though; Phase I was subject to a Mid-Term review, Phase II was subject to an End-Review and the project proposals for both Phase II and III were subject to appraisals.

<sup>5</sup> Available on [http://www.oecd.org/document/22/0,2340,en\\_2649\\_34435\\_2086550\\_1\\_1\\_1\\_1,00.html](http://www.oecd.org/document/22/0,2340,en_2649_34435_2086550_1_1_1_1,00.html)

<sup>6</sup> OfD is a programme established by the Norwegian government in 2005. The Project was commenced prior to the establishment of the Oil for Development Programme.

## 2.3 Methodology

The End-Review has been performed in line with the ToR, the guidelines and requirements for End-Reviews as set out in the Norwegian Development Cooperation Manual<sup>7</sup> and the OECD-DAC criteria. The main activities undertaken include meetings with Norad, desk studies and interviews with relevant stakeholders in Norway and Vietnam.

At the inception of the End-Review, we received relevant documents from Norad/PSA. The documents received did not, however, include all reports that should have been prepared in accordance with the contractual framework<sup>8</sup> nor minutes from all relevant meetings. Also, there were no auditor's reports. Whilst in Vietnam we went through the archives at the Embassy where some more documentation, including auditor's reports, was found. The Embassy assisted us in photocopying relevant documents and the copies were received 18<sup>th</sup> May 2012. PVN also provided hard copies of auditor's reports when we were in Vietnam. This improved the basis for our desk studies. A list of main documents reviewed is attached as Appendix 2.

The selection of interviewees was made upon Norad's suggestion as well as some input from Hege Knudsen, University of Oslo, who recently conducted a study on the Project.<sup>9</sup> Our initial list of interviewees included several international oil companies such as Statoil,<sup>10</sup> Chevron, Talisman and Petronas, however only one international oil company, TNK Vietnam B.V.<sup>11</sup>, could meet with us. One interview, with Dinh Co Gas Processing plant in Vung Tau, was cancelled on the day due to limitations in terms of time. The final schedules of all meetings and interviews conducted are attached as Appendix 3.

## 2.4 Disclaimer

The conclusions presented herein are solely drawn upon information received either through documents or interviews.

The Project has been running over a very long period of time (1996-2011) and there is a large quantity of documents related to the Project and its implementation. It has been a challenge to select the most relevant documents. Despite having received documents from Norad (selection of documents from the PSA archives) and PVN as well as having had access to the archives of the Embassy, we have not managed to assemble a complete set of reports and minutes of relevant meetings. As for Phase III, both the Final Report and the audit report for the period after 31.12.2009 are yet to be issued.<sup>12</sup> Also, due to the long Project period, there may be elements or nuances that the interviewees have forgotten and which may not be reflected in this report.

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<sup>7</sup> (2005), a manual published by Norad on behalf of the Ministry of Foreign Affairs.

<sup>8</sup> For an overview of reporting requirements, see item 4.1.4.

<sup>9</sup> Hege Merete Knudsen and Hoang Thi Ngot "Oil for development in Vietnam: In what ways is context sensitivity reflected in the programme and how does it affect outcome?"

<sup>10</sup> We have been informed that Statoil left Vietnam in 1997 and Statoil was mainly on the list in the capacity of being a key sub-contractor in Phase I. However, none of the named individuals that participated in the Project were working with Statoil any more.

<sup>11</sup> Previously British Petroleum (BP), established as a result of TNK-BV Group's acquisition of BP's assets in Vietnam in October 2010

<sup>12</sup> We have been informed by PVN that the Final Report "will be issued soon".

## 2.5 The structure of this report

In the following, an overview of the development of the Vietnamese petroleum sector, including the development of PVN, is provided in item 3. Item 4 gives an overview of the main elements of the Project, and in item 5 we provide an analysis of the Project against the OECD DAC criteria. The structure of the latter item is based on the detailed Scope of Work provided in the ToR. Finally, in item 6, we summarize the report to address the elements established as the purpose of the End-Review.

## 3 THE VIETNAMESE PETROLEUM SECTOR

### 3.1.1 The Vietnamese petroleum sector – development during the Project period<sup>13</sup>

Vietnam commenced its petroleum exploitation in 1986 in collaboration with the former Soviet Union.<sup>14</sup> In 1987, Vietnam opened for foreign investment. We have been informed that at the inception of the Project, the Vietnamese petroleum industry was regulated by the Petroleum Law of 1995. In addition there were draft Decree Regulations to implement the Law and drafts of ten detailed regulations.<sup>15</sup> Vietnam did not have its own HSE standards and the HSE legislation was broad and generally applicable rather than being specific to the challenges of the petroleum industry.<sup>16</sup> Thus, at a detailed level, HSE was regulated by Soviet standards and internal standards of the international oil companies operating in Vietnam.<sup>17</sup> With respect to the level of activity in the Vietnamese petroleum industry in Phase I, Econ reports:<sup>18</sup>

*“The current oil production in Vietnam is about 180 000 barrels per day (11 million tonnes on an annual basis [...] Gas production is around 1 billion cubic metres a year. [...] Vietnam has no refinery and therefore exports all its crude and imports all the petroleum products consumed. [...]”*

There were 24 foreign oil companies operating in Vietnam at the time of inception of the Project.<sup>19</sup> With regards to the economic significance of the petroleum, Econ reports:

*“Crude oil is the most important export revenue earner (about 25% of total export revenues). The petroleum activity accounts for roughly 10 % of GDP and is the biggest single source of government revenue. The sector has about 10.000 employees. [...] ”*

The Vietnamese petroleum industry has grown significantly since 1996; in 2012 it is expected that 15.8 million tonnes of oil and 9 billion cubic meters gas will be produced. The petroleum industry now accounts for approx. 30 % of the GNP. We have been informed that there are currently approximately 80 foreign oil companies conducting petroleum activities in Vietnam today.<sup>20</sup>

<sup>13</sup> Sources: the PVN final report for Phase I, a Norwegian allowance document (“Bevilgningsdokument”) for phase I dated 10.10.1996 and the report on the End-review of Phase II by the Brigde Group.

<sup>14</sup> At the Bach Ho field, by Vietsovpetro (joint venture between Vietnam and the Soviet Union).

<sup>15</sup> Letter from the NPD to Norad, archived 2 February 1996.

<sup>16</sup> 08.05.12, PVN.

<sup>17</sup> 07.05.12, the Norwegian Embassy.

<sup>18</sup> Memorandum 56/98 “Review of Assistance on Safety & Environment to the Vietnamese Petroleum Industry”, Econ 16<sup>th</sup> October 1998 item 3.1 on page 4.

<sup>19</sup> Allowance document (“Bevilgningsdokument”) for phase I.

<sup>20</sup> Information from PVN, e-mail from Mr. Dinh The Hung 24.05.2012.



### 3.1.2 The development of PVN during the Project period<sup>21</sup>

PVN is a state-owned company with history that stems back to 1977. At the commencement of the Project Period in 1996, PVN was subordinated to the Council of Ministers, i.e. in effect the Prime Minister. In Phase I, PVN was reported to have 9000 employees including the employees of the then 16 subsidiaries. PVN was also participating in 10 joint ventures. The powers of PVN at the time of Project commencement included the right to carry out petroleum activities on- and offshore in Vietnam. Petroleum activities could only be undertaken by other companies under joint venture contracts entered into with PVN. It is stated in a contemporary report that PVN has

*“[...] a leading role in the rest of the oil and gas chains either directly or through its subsidiaries. In addition to being the government’s major commercial instrument in the oil and gas sector, it performs a number of regulatory and administrative tasks, which in most petroleum producing countries are the responsibility of the government agencies [...]”*<sup>22</sup>

The administrative powers included supervisory responsibility as well as preparing drafts of detailed regulations and guidelines in cooperation with the Oil and Gas Department, Office of Government.<sup>23</sup> Draft regulations were thereafter formally issued by the relevant Ministry.<sup>24</sup> We have been informed that MOIT took over PVN’s regulatory tasks in 2005, but we were also told that PVN still prepares draft regulations if need be. The effect of the transfer of regulatory powers from PVN to MOIT is therefore unclear to us.

In 2006, the Holding Company-Vietnam Oil and Gas Group (“PVN”) was founded and the Government approved a project for formation of the Vietnam National Oil and Gas Group. Furthermore, a strategy entitled *“Development Strategy of Vietnam Petroleum industry by 2015 with direction to 2025”* was launched the same year, leading the Vietnamese petroleum industry into “a new stage”. It is stated on PVN’s website that:

*“The Petrovietnam Oil and Gas Group concentrates in actively and synchronously implementing hydrocarbon activities in all economic sectors as well as multi-business to be a strong economic group in Vietnam and a leading Petroleum Group in the region.”*

As per today, we have been informed that there are approximately 53 000 employees in PVN. The holding company is reported to have six 100 per cent owned subsidiaries including amongst other PVEP, one gas and one oil company, a power company, a refinery and a trading and investment company. PVN holds controlling shares in 14 companies operating within a broad range of business sectors, including petroleum services, transportation, insurance, construction et cetera. PVN is linked to five affiliates and two research institutions.<sup>25</sup>

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<sup>21</sup> Sources: [http://english.pvn.vn/?portal=news&page=detail&category\\_id=7&id=1057](http://english.pvn.vn/?portal=news&page=detail&category_id=7&id=1057), the PVN final report for Phase I, a Norwegian allowance document (“Bevilgningsdokument”) for phase I dated 10.10.1996 and the report on the End-review of Phase II by the Brigde Group item 1.1.

<sup>22</sup> Final report SRV-020 Project on “Assistance to development of management systems on safety and working environment and environment pollution in the Vietnamese petroleum industry”, prepared by PVN, Hanoi December 1999, on page 4.

<sup>23</sup> Letter from the NPD to Norad, archived 2 February 1996, entitled “Evaluation of project proposal from Vietnam for development of safety regulations and related training” on page 3.

<sup>24</sup> Minutes from the Steering Committee Meeting 09.10.1998 in Hanoi, on page 2.

<sup>25</sup> [http://english.pvn.vn/?portal=news&page=detail&category\\_id=82&id=1058](http://english.pvn.vn/?portal=news&page=detail&category_id=82&id=1058)

## 4 THE PROJECT: BACKGROUND, OBJECTIVES, SET-UP AND IMPLEMENTATION

### 4.1 Introduction

#### 4.1.1 Background

In August 1994 PVN requested Norad for assistance in a project entitled “*Development for environmental database for Vietnam and its use for environmental protection*”. The project proposal was developed in cooperation with Kværner Engineering Miljø.<sup>26</sup> Later, in January 1995, PVN requested assistance for a project entitled “*Development of safety regulation and training*”. This project proposal was developed in cooperation with DNV.<sup>27</sup> On this background, Norwegian authorities decided to carry out a fact finding mission to Vietnam in order to gain background information to assess the proposals. The mission was conducted in November 1995 and was concluded with a recommendation to support a project consisting of two sub-projects, namely the development of (i) HSE regulations and management systems and (ii) environment pollution control in the Vietnamese petroleum industry.<sup>28</sup>

#### 4.1.2 Bilateral and institutional cooperation and implementing institutions

The Project has been organized under a set of cooperation agreements. On 9 October 1996, the government of Norway and the government of Vietnam entered into an Agreement on General Terms and Procedures for Development Cooperation (“Main Agreement”). In addition to the Main Agreement, the governments have entered into project specific agreements (“Country Agreements”) for each Phase.<sup>29</sup>

The Country Agreements differ somewhat in their detailed content but all follow a similar pattern: they establish the goal and objectives of the relevant Phase, the main rules for cooperation, the main contributions and obligations of each country and contain an Annex I with a Project Summary. As is reflected in the comments on, and quotations of, goals, objectives, purposes and so forth in item 4.2-4.4, there appears to have been a development in the project design towards, as far as possible, increased focus on setting verifiable goals and purposes for each Phase of the Project. In phase II, the Country Agreement established indicators of achievement of each established output, and in phase III, the Country Agreement established a list of 10 activities including expected outputs for each activity. The Country Agreements are supplemented by agreements between the relevant institutions of the two countries (“Institutional Agreements”) for the implementation of the Project. The relevant institutions are PVN on the one hand and the NPD, later the PSA<sup>30</sup> and the SFT, later Klif<sup>31</sup>/NCA<sup>32</sup>, on the other hand.

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<sup>26</sup> Econ memorandum 56/98 “Review of Assistance on Safety & Environment to the Vietnamese Petroleum Industry (SRV 020)” (“the Econ report”), item 2 on page 3.

<sup>27</sup> Op.cit.

<sup>28</sup> For more information on the initial period pre-phase I, reference is made to the Econ report item 2, the PVN report entitled “Final Report SRV-020 Project on “Assistance to Development of Management Systems on Safety and Working Environment and Environment Pollution Control in the Vietnamese Petroleum Industry” item 1 on page 3 and final report 21. December 2006 from the Bridge Group AS entitled “Vietnam HSE MS Project, Phase II Review and Phase III Project Appraisal” item 3.1 on page 13.

<sup>29</sup> The three Country Agreements were entered into on 09.10.1996, 14.08.2001 and 02.12.2007 respectively.

<sup>30</sup> As from 01.01.2004 the NPD was split into two separate agencies: the NPD which is responsible for resource management and the PSA which is responsible for HSE in the petroleum industry.

<sup>31</sup> SFT changed its name to Klif in January 2010.

The Country Agreements establish that in matters pertaining to the implementation thereof, the Norwegian government is represented by Norad in Phase I and II and by the MFA in Phase III. The Vietnamese government is represented by the Ministry of Planning and Investment in all three Phases,<sup>33</sup> but it is expressly agreed that the overall responsibility for the implementation of the Project rests on the Ministry through PVN.<sup>34</sup>

At the commencement of the Project period, there were discussions regarding the selection of which Vietnamese entity that was to act as the counterpart to the Norwegian institutions.<sup>35</sup> Whereas PVN certainly was a state owned company with a leading role in the Vietnamese petroleum industry, PVN also performed regulatory and administrative tasks similar to some of those resting with NPD and SFT. It was therefore decided that PVN was the most appropriate counterpart for the Norwegian institutions under the Project.

#### 4.1.3 Use of sub-contractors and procurement

In order to implement some of the activities under the Project and to procure required goods such as necessary software, sub-contracts were entered into. It is our impression that the services rendered and the goods purchased were generally of a satisfactorily character, see also item 4.2 with specific comments on the quality of training. A table providing an overview of the main sub-contractors used in Phase I and II is attached as Appendix 4. We are under the impression that the use of external sub-contractors in Phase III was limited, and this has been confirmed by the PSA.<sup>36</sup> However, PVN did use DNV to certify auditors subsequent to one of the Audit training courses held in Hanoi in 2009.

In addition to its initial involvement with the project proposal, see item 4.1.1, DNV was a main sub-contractor in Phase I and II. In fact, using DNV as a sub-contractor under the Project was already an issue in the recommendation letter from the NPD to Norad to support the Project, i.e. prior to its commencement.<sup>37</sup> As pointed out in item 5.3, DNV also have had several spin-off contracts from the Project and appears to still be conducting work for PVN subsidiaries today.

As a clear starting point in the Country Agreements, procurement is the responsibility of Vietnam. Procurement shall, amongst other, be conducted in accordance with generally accepted principles, good procurement practises and Vietnamese procurement regulations.<sup>38</sup> Norwegian companies are not given preference. With some limited exceptions, copies of contracts shall be submitted to Norway for information. In Phase I and III, the Norwegian institutions could, under certain circumstances, undertake procurement for PVN.

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<sup>32</sup> As from 01.01.2003 the department responsible for emergency preparedness against acute pollution in the then SFT was moved to NCA. We understand that SFT continued to represent this department in Institutional Agreements, see Country Agreement 04.12.2007 04.12.2007 article IV.7.

<sup>33</sup> Regulated in Articles 2 (2) of all three Country Agreements

<sup>34</sup> The role of PVN is further discussed in item 3.1.2.

<sup>35</sup> Final report on the safety management project, November 1999, issued by NPD to PVN, item 1.1 and 1.3

<sup>36</sup> At the time of writing this Report, the Final Report for Phase III and the auditor's report for the period 01.01.2010 – end of Project were not yet issued.

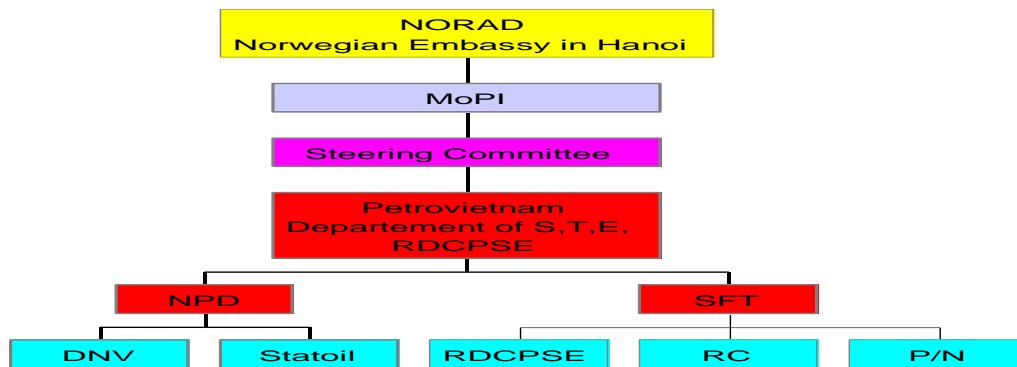
<sup>37</sup> Letter from the NPD to Norad, archived 2 February 1996

<sup>38</sup> See Country Agreement 09.10.1996 Article V, Country Agreement 14.08.2001 Article V and Country Agreement 04.12.2007 article VIII

In Phase I, the Norwegian institutions (NPD and SFT) were requested to carry out the main procurement processes on behalf of PVN. In Phase II, however, PVN was specifically requested to be in charge of procurement of goods and services and to execute all payments.<sup>39</sup> It has been confirmed by the PCA that there were no changes to the procurement arrangements in Phase III, which means that PVN was in charge of the procurement of DNV mentioned above.

#### 4.1.4 Project set up: Management, reporting, monitoring and auditing

The Country Agreements require regular consultations<sup>40</sup> between Norway and Vietnam to discuss progress and issues of special concern for the implementation of the Project and to agree on work plans, budgets and any changes thereto.<sup>41</sup> Prior to the inception of the Project, in order to ensure progress and monitoring by a body with adequate decision-making powers, Norad required that a SC be established with the participation of high level representatives from the implementing institutions<sup>42</sup>. The SC was composed of one representative from NPD (later PSA), one from SFT (later Klif) and two from PVN. In the final report prepared by NPD following Phase I, the organisational set-up and institutions involved was illustrated by this figure:



The SC had 6 meetings in Phase I, 8 meetings in Phase II and 7 meetings in Phase III. Meetings were carried out in various locations in Norway and Vietnam.

In Phase II, the PSU, a body composed of representatives of relevant divisions of PVN, was established by Vietnam to conduct the day-to-day management of the Project, including implementation and monitoring.<sup>43</sup> The PSU was led by a National Project Director, assisted by one Chief Technical Adviser<sup>44</sup> from SFT and one from NPD. Further, a Project Accountant responsible for the accounts etc. of the Project was appointed by PVN.

<sup>39</sup> See agreed minutes of the first consultation meeting 19.10.2001 item 3.2. Under item 3.4, it is stated that the Norwegian delegation recommended that PVN seek assistance from SFT and NPD respectively when negotiating contracts and that all international contracts, and payments of invoices thereunder, should be endorsed by the NPD/SFT and thereafter executed by PVN.

<sup>40</sup> Biannual in Phase I (see Country Agreement 09.10.1996 article II.4) and annual meetings in Phase II and III (see Country Agreement 14.08.2001 article II.5 and Country Agreement 04.12.2007 article VI.1).

<sup>41</sup> This wording is based on the country Agreement of 09.10.1996. Slightly differently worded in the Country Agreements for Phase II and III but the gist of the purpose of these meetings are the same throughout the entire Project period.

<sup>42</sup> Telefax from NPD to PVN 17.09.1996.

<sup>43</sup> Country Agreement 14.08.2001 Article 4.

<sup>44</sup> Appointed by NPD and SFT respectively and approved by PVN.

Vietnam held the overall responsibility for the planning, administration and implementation of the Project. It is our understanding that there nevertheless was a fair amount of Norwegian contribution to the Project management in Phase I but that PVN gradually increased its control of the Project management in Phase II and III.

The Country Agreements establish reporting requirements, including a requirement for Vietnam to submit Annual Reports on the implementation of the Project as related to its goal and purpose. Prior to each consultation meeting, Vietnam shall submit work plans, including planned outputs and time schedules, and budgets, including planned expenditures, for the ensuing period. Finally, within three months of completion of each Phase, Vietnam shall submit a final report to Norway.<sup>45</sup> In Phase II and III the Country Agreements also established a requirement for an independent audit to be conducted and an auditor's report to be submitted.<sup>46</sup> In addition to the above reporting requirements, the Institutional Agreements also establishes reporting requirements.<sup>47</sup>

As discussed in item 5.3, our review of documents reveals that there were some issues regarding inadequate reporting early in the Project. However, as this has not been mentioned in meetings/interviews conducted, we assumed that any such problems have been solved. Further, we have not had access to a complete set of reports and minutes, see item 2.4. However, we have neither seen nor heard anything that indicates that reporting requirements were not adhered to.<sup>48</sup>

#### 4.1.5 Project set-up: Financial management

In Phase I, disbursements from the Project were effectuated by Norad upon written request from Vietnam against invoice and PVNs written approval of the invoice. As from Phase II, PVN was executing payments.

In order to secure that the financial grants made available under the Country Agreements were used exclusively to finance the Project, all of the Country Agreements include provisions on amongst other budget preparation, annual reports, the right to withhold disbursements and accounting. The Country Agreements for Phase II also provide for the appointment of a Project Accountant, with certain specified tasks. Interestingly, the Country Agreement for Phase III does not include a similar provision. However, we cannot conclude on this basis that the Project did not have a Project Accountant for Phase III.

Unspent funds not fully utilised for one activity has on several occasions been utilised on other activities within the Project. According to the Country Agreements for Phase I and II, this requires written agreement "between the Parties". In the Country Agreement for Phase III, there is no similar

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<sup>45</sup> This wording is based on the country Agreement of 09.10.1996. Slightly differently worded in the Country Agreements for Phase II and III but the gist is the same.

<sup>46</sup> Country Agreement 14.08.2001 Article VII.3 and Country Agreement 04.12.2007 article IX. It is our understanding that this was not necessary in Phase I because the funding was never transferred to PVN and the use thereof was therefore subject to review by the Norwegian Office of the Auditor General.

<sup>47</sup> Note that we have not seen all the Institutional Agreements and the requirements in those we have reviewed (e.g. agreement between PVN and SFT for Phase I and agreement between PVN and SFT and PSA for Phase III) differ.

<sup>48</sup> There are two exceptions to this as at the time of writing the Final Report from Phase III was yet to be submitted, and in that there was no auditor's report for the period after 01.01.2010. However, it appears that these are mere delays and that the reason for the delay is late invoicing.

provision, and instead, one has included a provision stating that any “*unspent disbursed funds and accrued interests shall be returned to Norway upon completion of the Project*”.

#### 4.1.6 Contribution and budgets

The funding of the Project has been shared between Norway and Vietnam.<sup>49</sup> The monetary funding of the Project was mostly provided by Norway in Phase I and Phase II but with a larger Vietnamese share in Phase III:

Phase	Norwegian Contribution	Vietnamese Contribution	Total actual expenditure
I	NOK 25.360.000 budgeted: - NOK 11,360,000 on Safety - NOK 14,000,000 on Environment	Contribution in kind, see Country Agreement Article IV	NOK 25.360.000
I Addendum	NOK 1,700,000 budgeted, all on Environment	NOK 717.500	NOK 2,417,500
II	NOK 20,000,000 <sup>50</sup> budgeted: - NOK 9,545,000 on Safety - NOK 10,455,000 on Environment	Contribution in kind, see Country Agreement Article 1.9 but expenditure of NOK 414,809.90 reported <sup>51</sup>	NOK 19,037,380 <sup>52</sup>
III	NOK 7.065.000 budgeted: <sup>53</sup> - NOK 5,940,000 on Safety - NOK 1,125,000 on Environment	Agreed at a minimum NOK 5.116.481 <sup>54</sup> , but reported to have ended up being more than USD 2 million <sup>55</sup>	Norwegian actual expenditure reported to be NOK 6.965.000. <sup>56</sup> Vietnamese contribution was approx. 39.707.868.508 VND, which equals 2.500.000 USD.

## 4.2 Phase I, 1996 – 1999

Whereas the initial project proposals were developed in cooperation with Norwegian consultants, the final project proposal for Phase I was a result of joint collaboration and detailed planning of Vietnamese and Norwegian parties.<sup>57</sup> In October 1996, the Main Agreement, the Country Agreement for Phase I and the Institutional Agreements for Phase I were concluded. These agreements formed the basis for the Project and its Phase I, which was planned to take place as from October 1996 – October 1999. The objective of Norway’s assistance is stated in the Country Agreement for Phase I article I.2 as follows:

<sup>49</sup> For a full overview of the distribution of responsibilities please refer to the Country Agreements on the allocation of responsibilities between the parties as well as the projects summaries annexed thereto.

<sup>50</sup> Budgeted Country Agreement for Phase II, Article 1.3

<sup>51</sup> See Final report on Phase II, prepared by PVN in Hanoi June 2006, table 3

<sup>52</sup> See Final report on Phase II, prepared by PVN in Hanoi June 2006, item 8 on page 22

<sup>53</sup> Country Agreement for Phase III, Article III.

<sup>54</sup> Country Agreement for Phase III, Article IV

<sup>55</sup> PVN, 07.05.12

<sup>56</sup> Minutes of the seventh steering meeting 15.06.2011,

<sup>57</sup> The PVN report entitled “Final Report SRV-020 Project on “Assistance to Development of Management Systems on Safety and Working Environment and Environment Pollution Control in the Vietnamese Petroleum Industry” item 1 on page 3

*“The objective of Norway’s assistance is to support and supplement Vietnam’s development efforts in the Petroleum Sector in the planned period October 1996-October 1999.”*

Further, the goal is stated in article I.4 and in Annex I as follows:

*“The Goal of the Project is:*

*a) Transferring experience and information about Safety and Environmental management Systems developed from the petroleum activity in the North Sea to Vietnam, in order to allow such systems to be an integrated part of the planning process for new and ongoing offshore petroleum activities. These instruments should ensure that exploration, field development, production and processing activities are undertaken in a safe manner according to the public interest with regard to:*

- protection of working environment and human life,*
- protection of environment against pollution or other harmful effects,*
- protection of property and oil installations,*
- ensuring continuity in petroleum production and return of financial investment.*

*b) Establishing a control system that ensures uniformity in standards amongst all petroleum operators in Vietnam.”*

Finally, the purpose is established in Article I.5 and in Annex I as follows:

*“The Purpose of the Project is:*

*- Safety Management Regulation: Developing goal setting standards and regulations containing safety management, risk analysis and emergency preparedness.*

*- Supervisory Activity: Developing the organisation for performing supervisory activities and formalising the division of responsibility and co-ordination of the supervision.*

*- Training: Establishing the needed competence and ability within the executive units that are going to perform drafting of regulations and supervision of the activities.*

*- Contingency Planning: Establishing contingency planning related to oil spill from the petroleum industry.*

*- Evaluation of the use of chemicals and discharge offshore: Establishing an evaluation system in the offshore industry in Vietnam. The system shall be part of the regulation, ensuring that the chemicals do not have unacceptable effects on the personnel or on the marine environment. The system shall be a support for the regulators and for the industry.”*

The output and input planned are listed in Annex I to the Country Agreement.

The activities conducted as a part of Phase I focused mainly on the legal framework and competence building. An overview of main activities conducted is provided in Appendix 5. It is our impression,

based on documents reviewed and interviews, that the quality of the training provided was generally high, though issues of low turnout was addressed,<sup>58</sup> and that the approach chosen towards drafting of legal instruments<sup>59</sup> was successful.<sup>60</sup> A mid-term review of Phase I conducted by Econ in 1998 is also by and large very positive; it concludes that the Project at that stage generally features a high score however Econ questions whether the Project will have the intended effect under a different institutional arrangement for regulation in the petroleum sector.<sup>61</sup>

The final report<sup>62</sup> concludes that the Project has been completed on time and budget and that it was successfully implemented. Most of the planned activities have been carried out. It is furthermore stated that two additional activities by utilizing non-spent budgeted amounts would be conducted in 2000.<sup>63</sup> PVN further observes that the institutional cooperation should be long term and that further work should have been done on several items and an outline of further, proposed activities to be conducted in a phase II is provided.

There appears to have been some issues with delays in PVN's approvals of invoices from SFT and NPD<sup>64</sup> which led to a slow rate in disbursements. We have been informed that this was due to differences in accounting standards.<sup>65</sup>

Minutes from the fifth consultation meeting<sup>66</sup> confirm the positive impression; Norad expresses that all expected outputs have been achieved and the purpose of the Project has been met. The issuance of the Safety Management Regulation is highlighted as the most important achievement of safety management project; this has also been expressed in a couple of our meetings. There has been no corresponding mention of a "main achievement" in the environment management project.

We have not noted any comments on the adequacy of the wording of the objective, goals and purposes of Phase I as was the case for Phase II, see item 4.3.

#### **4.3 Phase II, 2000 – 2005**

The goal and objectives of Phase II are stated in the Country Agreement 14.08.2001 Article I.2 and in Annex I as follows:

*"Goal:*

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<sup>58</sup> Minutes of the third consultation meeting 24.11.1998, item 3.1.2 on page 3.

<sup>59</sup> The mode of operation followed by and large was that relevant PVN staff received training at drafting regulations and conducted the drafting and the Norwegian institutions would comment on these drafts. This approach has been commended and is meant to create local ownership to the end product e.g. securing that the regulation is fit for the local context and promoting sustainability.

<sup>60</sup> This also applies in terms of context sensitivity, see Hege Merete Knudsen and Hoang Thi Ngot "Oil for development in Vietnam: In what ways is context sensitivity reflected in the programme and how does it affect outcome?"

<sup>61</sup> Econ memorandum 56/98 "Review of Assistance on Safety & Environment to the Vietnamese Petroleum Industry (SRV 020)" ("the Econ report"), item 1 on page 3.

<sup>62</sup> Op.cit, on page 31.

<sup>63</sup> Work shop for finalizing new project proposal in January 2000 and work shop for finalizing three technical guidelines in June/July.

<sup>64</sup> Minutes of the first consultation meeting 16.10.1997.

<sup>65</sup> PVN 08.05.12.

<sup>66</sup> 25.02.2000, item 3.1 and 5.1



*A sustained process of further development of health, safety and environment management is established in the Vietnamese petroleum industry so major accidents and environmental damage are avoided.*

*Objectives:*

*To successfully implement and enforce the Safety Management Regulation and the accompanying Petrovietnam guidelines.*

*To enable Petrovietnam to further develop, implement, use and continuously improve the health, safety and environment management system after the end of the Project period.*

*To enable a selection of Petrovietnam employees to continuously build health, safety and environment competence in Petrovietnam after the end of the Project Period”*

In addition, Annex I establishes the output for the Safety Management Project and the Environmental Management Project respectively as well as indicators of achievement of each expected output and Norwegian and Vietnamese contribution. An overview of main activities conducted is provided in Appendix 5.

After completion of Phase II, an End-Review Phase II was conducted.<sup>67</sup> The End-Review Phase II criticizes the project matrix on the basis of the LFA guidelines.<sup>68</sup> The goal is characterized as a process rather than a verifiable end product. The purpose is “*far from ideal*” due to there being three purposes; the LFA recommendation is one purpose only. Further, the latter two purposes are more references to processes than a desired state and they are not precise and verifiable. The End-Review Phase II points out that there is a mixture of outputs and indicators. Thus, the End-Review Phase II described the project document as “*partly incomplete and partly of low quality*”.

This criticism was met by comments from PVN and NPD pointing amongst other at the difficulty in establishing a project matrix in full compliance of the LFA criteria for a capacity building program, as well as difficulties in using statistics as an indicator for achievement of objectives due to the potential inconsistencies in reporting.<sup>69</sup> The End-Review Phase II acknowledges the comments and emphasizes that in cases where quantitative objectives, outputs and indicators cannot be established, it is important that a proposed baseline is described along with a methodology that can be used to monitor the project implementation.

Irrespective of the above, the End-Review Phase II concludes that Phase II was highly relevant, highly effective and that the potential for impact and sustainability is high. However, there were delays in the project implementation which affected the efficiency. Phase II was planned to last as from 2001 – 2004 but was prolonged to 2005.<sup>70</sup> The delays were partly due to lengthy contract negotiations. Furthermore, late invoicing from the Norwegian partners caused a large difference between actual project implementation and the disbursement as recorded by the financial statements, which made

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<sup>67</sup> The final report by the Bridge group entitled «Development of Management Systems on Safety and Working Environment and Pollution Control in the Vietnamese Petroleum Industry» dated 21.12.2006.

<sup>68</sup> The Bridge report, op.cit., item 3.4 on page 15 with a reference to Norad (1996), the Logical Framework Approach: Handbook for objectives-oriented planning, 3<sup>rd</sup> edition on page 64.

<sup>69</sup> The Bridge report, op.cit., item 3.4 on page 16.

<sup>70</sup> The Bridge report, op.cit., item 6.1 on page 25.

project management difficult.<sup>71</sup> This issue is repeatedly raised and discussed in the documents reviewed. KPMG carried out four audits during Phase II, all of which concluded that the financial statements from the Project Support Unit present the financial position of the project fairly in all material respects, however the issues with late invoicing and the problems that this entails in terms of budget monitoring and project management is addressed also by KPMG.<sup>72</sup>

On a final note we have observed that the Norwegian delegation in the first consultation meeting 19.10.2001<sup>73</sup> stated that the administration costs seem high and PVN was requested to seek to combine travel in connection with SC meetings with technical work such as workshops. In the minutes from the second consultation meeting 05.07.2002 it is stated that the Norwegian delegation took due note of PVN complying with this direction and that a SC meeting in Stavanger in 2002 had been combined with a work shop.

#### **4.4 Phase III, 2007 - 2011**

The End-Review of Phase II encompassed an Appraisal of the Project Proposal for Phase III. Similar concerns as those presented in relation to the project matrix for Phase II were raised,<sup>74</sup> but the difficulty in finding quantitative and adequate project purposes and project outputs in institutional capacity building projects was acknowledged. Nevertheless, these comments are assumed to have led to an amendment of the goal and purposes of Phase III as the wording in the Country Agreement differ from that quoted in the Appraisal in the sense that the former is of a more clear and verifiable character than the latter. The Appraisal also raised concern that nearly 50 % of the budget was travel costs.

Furthermore, the relevance of using PVN as a counterpart rather than the Ministries with supervisory and regulatory responsibilities on the areas concerned<sup>75</sup> is discussed;<sup>76</sup> the conclusion is that the Ministries' capacity to carry out these duties is limited and it is assumed that they will largely rely on the procedures and systems implemented by PVN. Further, PVN has amongst other been assigned the responsibility of the southern oil spill response centre<sup>77</sup> (whilst the other two are the responsibility of the military). Thus, the Appraisal does not recommend reconsideration of main Vietnamese implementing party but it is stressed that PVN do not hold formal supervisory or regulatory powers and that the relevant Ministries should as far as possible be involved.

Risks to project implementation, including amongst other the transformation that PVN was undergoing at that time, are raised.<sup>78</sup> The Appraisal nevertheless concluded that a Phase III was relevant and a logical continuation of Phase II. This conclusion has been supported and elaborated in interviews; PSA expressed that despite initial doubt of the need for one more phase, it is

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<sup>71</sup> The Bridge report, op.cit., item 6.2 on page 27.

<sup>72</sup> See KPMG audit reports for the financial years of 2001-2002, 2003, 2004 and 2005-2006 and a document entitled "Completion document" issued in Hanoi 2 April 2007.

<sup>73</sup> Item 4.3.

<sup>74</sup> See the Bridge report item 9.4 on page 40 and item 9.8 on page 46.

<sup>75</sup> The Ministry of Industry, the Ministry of Labour, Invalid and Social Affairs and the Ministry of Natural Resources and Environment.

<sup>76</sup> See Bridge report item 9.3 on page 40.

<sup>77</sup> NASOS; National Southern Oil Spill Centre.

<sup>78</sup> See Bridge report item 9.9 on page 46.

acknowledged in hindsight that Phase III perhaps was the most important phase to ensure sustainability.<sup>79</sup>

The goal and objectives of Phase III are stated in the Country Agreement 04.12.2007 Article I.2 and in Annex I as follows:

*“The Goal of the Project is:*

*To establish a sustainable and efficient management on health, safety and environment in the Vietnamese petroleum industry, to minimize risk of personnel injury, major accidents and environmental damage.*

*The Objectives of the Project are:*

- *Implementation of Petrovietnam recently developed policy and corporate requirements for HSE-management in Petrovietnam’s headquarters*
- *Further development of Petrovietnam HSE corporate HSE management systems, tools and practises, including its HSE strategies, objectives and plans.*
- *Targeted competency development in support of Petrovietnam’ HSE system developments,*
- *Forwarding the implementation and incorporation of Petrovietnam corporate HSE-management systems in Petrovietnam subsidiaries.”*

Pursuant to Annex I item 1.7 of the Country Agreement; Phase III is planned for three years i.e. 2007-2010. However, Phase III continued for most of 2011. There are indications that the delay might be caused by lengthy contract negotiations with one sub-contractor, VPI-CPSE.<sup>80</sup>

The Country Agreement for Phase III sets out 10 activities and their respective Outputs. An overview of main activities conducted is provided in Appendix 5. Progress reports and SC minutes reviewed show in general satisfaction with the progress of the activities.<sup>81</sup> The Project started to use the software ProjectPlace in 2009 and the tool is reported to have eased the communication between parties involved and the management of the documents.<sup>82</sup> PSA<sup>83</sup> explained that the use of ProjectPlace reduced the need for travelling. The minutes of the last SC meeting 15 June 2011 shows that seven of the ten activities set out for Phase III were completed and the other three were near completion without any need for further input from PSA and Klif. According to oral information we have received as well as a presentation from the PSA called “Summing Up the HSE Management Project 1996-2011”, it seems that all ten activities have now been completed.

The minutes from the last SC meeting also demonstrate that the balance between the budget and the actual expenses is good; only NOK 100,000 is left for the evaluation. As of yet we have not seen a final report for Phase III nor an auditor’s report for 01.01.2010 and onwards. We understand that the delay in reporting is due to late invoicing which appears to be a recurring problem throughout the

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<sup>79</sup> PSA interview 24.04.2012.

<sup>80</sup> Annual Report for 2010, item 6 on page 8.

<sup>81</sup> Minutes from SC meeting 02-03.11.2008, 25-26.06.2009, 18.11.2009, and Progress report for quarter I,II,II 2009 and work plan and budget for 2009.

<sup>82</sup> Minutes from SC meeting 18.11.2009.

<sup>83</sup> Telephone conference 21.05.2012.

entire Project period. The agreed minutes of the inception meeting for Phase III 29.05.2008 item 3.2 addresses this matter and it is stated:

*“[...] The second issue is late invoicing that caused a number of problems during the last two phases. The Norwegian delegation asked PVN, SFT and PAS to work out a proper mechanism to eliminate the shortcomings to have a better picture of the financial situation of the project in the third phase. [...]”*

We have received one audit report for Phase III covering the period as from 04.12.2007 and to 31.12.2009.<sup>84</sup> The report concludes that the financial statements present fairly, in all material respects, the fund balance, financial position, income and expenditures of the Project as of 31.12.2009.

Based on the documentation provided<sup>85</sup> and interviews conducted, it is our impression that Phase III was relevant and effective. Phase III is further assumed to contribute towards increased impact and to promote the probability for sustainability. As has been an issue for the remainder of the Project, the efficiency could have been better if the invoicing issues had been solved and contract negotiations were more efficient.

## **5 ANALYSIS OF THE PROJECT BASED ON THE OECD-DAC CRITERIA**

### **5.1 Relevance**

#### **5.1.1 Overall impression**

Based on the information we have received on the Vietnamese petroleum industry and PVN prior to the inception of the Project, their respective development throughout the Project period<sup>86</sup> and our review of available documentation as well as the interviews carried out, it is our overall impression that the Project was highly relevant both in the Vietnamese and Norwegian context.

In general, establishing and maintaining a high level of safety to protect worker's health and lives, investments made, the natural resources being extracted, the surrounding environment and potentially affected communities and industries is paramount in the petroleum industry. One of the main reasons for any country to exploit its petroleum resources is to generate revenue; however, it is now a widespread acknowledgement that HSE is important for securing high profitability for companies and host countries alike:

*“Safety is something that we cannot choose not to afford. High health, safety and environmental (HSE) standards are essential for achieving high profitability. The two complement and reinforce one another.”<sup>87</sup>*

Establishing and maintaining high HSE standards is even more important in developing countries where resources for emergency preparedness may be restrained and there may be less developed

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<sup>84</sup> Management Letter and Audited Financial Statements prepared by Mazars, dated 12 May 2012.

<sup>85</sup> There is less substantive documentation regarding Phase III than for the other two Phases. In addition to the reports that we have yet to see, the minutes of meetings are shorter and appear less informative. This may of course be due to the fact that Phase III had a smaller scope than Phase I and II.

<sup>86</sup> Reference is made to items 3.1.1 and 3.1.2.

<sup>87</sup> Quote from the PSA website: <http://www.ptil.no/hse-management/safety-economics-article4260-137.html>

systems for assisting those affected by incidents and accidents, for clean-up of oil spills et cetera. Due to the high priority put on HSE including environmental awareness internationally, it is a pre-requisite for an oil company's success on the international arena that it can demonstrate that it has an HSE management system that enables it to conduct petroleum activities with a high level of awareness and caution in terms of HSE, including in particular environmental issues.

### 5.1.2 Vietnamese context

When it comes to Vietnam and PVN specifically, PVN<sup>88</sup> informed that at the time of the inception of the Project, PVN had identified the need to improve on HSE and this was deemed to be very important. At the same time, PVN also acknowledged that HSE issues were complicated. PVN did not have its own HSE management system and found that Statoil had a very good system. It is our understanding that it was against this background that PVN/Ministry of Planning and Investment looked to Norway for assistance.<sup>89</sup> Similarly, the NPD/PSA<sup>90</sup> informed that HSE aspects in the Vietnamese petroleum industry were undeveloped prior to the commencement of the Project, that there was great need to improve HSE situation and that Vietnam had demonstrated a genuine desire to improve the HSE situation. It was also highlighted that whereas there was some regulation in force these were developed by external consultants and there was little sense of Vietnamese ownership. Klif<sup>91</sup> informed that PVN demonstrated a clear interest in achieving the goals established under the Project and implementation thereof and that the driving force appeared amongst other to be based on wishes to become an international oil company. In conclusion, we deem that the relevance of the Project was very high both for Vietnam as a developing country and for PVN as a state oil company.<sup>92</sup>

### 5.1.3 Norwegian context

The relevance to the Norwegian institutional partners<sup>93</sup> and Norway as a donor is also regarded as very high. The Norwegian "HSE model" for offshore petroleum industry is regarded as leading internationally and had already spurred developments in other countries.<sup>94</sup> The Norwegian institutions involved have all played a key role in developing the Norwegian model and possess unrivalled expertise thereon. The Project is therefore clearly relevant to these institutions. The Project has also been relevant also for Norway as a donor country as from the commencement of the Project<sup>95</sup> and, since 2005, for the OfD programme, which operative goal is to "*economically, environmentally and socially responsible management of petroleum resources which safeguards the needs of future generations*".

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<sup>88</sup> PVN interview, 07.05.12.

<sup>89</sup> Reference is also made to item 4.1.1.

<sup>90</sup> NPD/PSA interview 19.04.12.

<sup>91</sup> Klif interview 24.04.12.

<sup>92</sup> PVN now conducts operations abroad.

<sup>93</sup> Klif, PSA, NPD and NCA.

As an example; in the inquiry post the Piper Alpha accident on the UK continental shelf in 1988, Lord Cullen (the inquirer) turns to Norway to find examples on how HSE regulation could be improved (Lord Cullen D. W.: The public inquiry into the Piper Alpha disaster. The Hon Lord Cullen; presented to Parliament by the Secretary of State for Energy by command of Her Majesty, November 1990. London: HMSO, 1990.).

<sup>95</sup> The allowance document («Bevilgningsdokument») for phase I dated 10.10.1996 states that. "The initiative is part of the authorities politics and priorities on the area [...]" (unofficial office translation).

#### 5.1.4 Flexibility and responsiveness

The Project commenced in 1996 and continued throughout to 2012. As already mentioned, there have been changes and developments in the Vietnamese petroleum industry, PVN and the state organization of the petroleum sector in Vietnam during this period of time. Having established the initial relevance for the abovementioned parties at the inception of the Project, we have also evaluated whether the Project has been responsive and flexible to the needs in petroleum sector in Vietnam throughout the Project period. The parties interviewed are in the affirmative when asked about the continued relevance of the Project throughout the Project period and the documents reviewed indicate the same.

Irrespective of this and our overall impression of a highly relevant Project, we have considered two questions regarding the responsiveness to changed circumstances.

First, we question whether it was appropriate to have what appears to be a narrow focus on PVN in the safety project, rather than on the Vietnamese petroleum industry as such (cf. also the name of the Project), Phase II and III.<sup>96</sup> To this question PSA has responded<sup>97</sup> that due to the role PVN plays in the Vietnamese petroleum industry and the joint ventures for petroleum exploitation and the low capacity of the authorities, PVN is more or less synonymous to the Vietnamese petroleum industry. Second, and considering the transfer of regulatory power from PVN to MOIT that was reported to have taken place in 2005 (e.g. prior to the commencement of Phase III), we question whether MOIT should have been involved closer as an important Vietnamese counterpart in Phase III or, alternatively, whether one should have considered even closer to broaden the material scope of the Project as addressed first, in Phase III. To this the PSA responded<sup>98</sup> that MOIT was much more involved in Phase III; they were amongst other invited to workshops and seminars held under the Project.

Finally, we also note with interest that as early as in the Country Agreement for Phase I it is established that a Safety Management Regulation shall be based on “goal setting standards”. It is unquestionable that this is the modern and, in many contexts the most adequate technique for drafting regulations. However, we are not certain whether the Vietnamese context, in particular the capacity and competency of those bodies managing the regulations and the establishment of interfacing/supplementary legal mechanisms such as the internal control principle, was sufficiently considered before one reached the conclusion that such regulatory techniques were to be introduced in Vietnam.

## 5.2 Effectiveness

### 5.2.1 Overall impression

The evaluation of effectiveness concerns the extent to which the Project has attained its objectives as described in item 4.2- 4.4. Our overall impression is that the Project has been effective.

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<sup>96</sup> To a certain extent, the environment management project appears to address the broader Vietnamese petroleum industry.

<sup>97</sup> Telephone conversation 21.05.2012.

<sup>98</sup> Telephone conversation 21.05.2012.

As for Phase I and II the degree of achievement of objectives, goals and fulfilment of purposes has been evaluated before as generally high,<sup>99</sup> despite the difficulties pointed out in item 4.3 on establishing clear and verifiable criteria for capacity building projects.

As for Phase III, the latest report on the progress of the activities (i.e. the Outputs, see Annex I of the Country Agreement for Phase III) was that all activities were near completion. There were no problems reported on the implementation of the Project.<sup>100</sup> Based on what we can gather from the documents reviewed and the interviews conducted, the objectives for Phase III are also in general met. As for achievements of the goal for Phase III, see item 4.4, which concerns both sustainability and efficiency in the Vietnamese petroleum industry, we comment on sustainability in item 5.5. Regarding efficiency, the management of HSE in PVN comes across as efficient; however, it is hard for us to evaluate the efficiency in the Vietnamese petroleum industry in general as we only met with one international oil company.<sup>101</sup>

### 5.2.2 Indications of effectiveness – project activities

Elements that underpin our impression of the Project as by and large being efficient include the signs of strong focus on HSE thinking and culture observed when we visited PVN and its various subsidiaries of PVN. We heard twice that there has been a change from a “have to”-attitude to “willing to”-attitude.<sup>102</sup> Another indication of successful implementation of an HSE management system in PVN is the seemingly unified approach towards HSE issues is that we heard very similar stories on HSE management, thinking and culture when we visited the various PVN entities. TNK Vietnam B.V., which work together with PVN in joint ventures, expressed that there had been a “*dramatic change in behaviour*” with respect to HSE in PVN as a partner in Production Sharing Agreements; PVN is now amongst other more responsive to approve costs for HSE and there is an increased understanding that safety is good for business. This development was also observed in the local Vietnamese contractors.

Also in relation to development of environmental management systems it is our impression that the Project has been effective; guidelines for emergency preparedness have been developed, an environmental sensitivity index has been established, and emergency / oil spill response management as well as oily hazardous waste management guidelines have been established. The completion of these activities and documents contribute to our impression of the overall effectiveness of the Project.

Finally, a strong indication that the Project was fit for purpose in the Vietnamese context is that both PVN<sup>103</sup> and MOIT<sup>104</sup> indicated that there is interest for expansion the HSE approach introduced into Vietnam through the Project into other parts of PVN and even other industry sectors. During our visit to Vietnam we got the impression that this is to a certain extent already happening.

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<sup>99</sup> E.g. the mid-term review of phase I, the End-review of Phase II and comments made in various reports and minutes.

<sup>100</sup> Minutes of the seventh Steering Committee meeting 15.06.2011.

<sup>101</sup> In a report entitled “Oil for development in Vietnam: In what ways is context sensitivity reflected in the programme and how does it affect outcome?” it is stated on page 8 that: “[..] However, industry is more reserved regarding the impact of the regulatory system in industry.[..] Hence, despite the fact that PVN is close to the core of national power, there are barriers to implementation that involve power relations with other institutions.”

<sup>102</sup> TNK Vietnam B.V. interview and Bien Dong interview.

<sup>103</sup> PVN interview 07.05.12.

<sup>104</sup> MOIT interview 08.05.12.

For the most part, the activities appear to have been carried out as planned, however, there were some extra activities included due to unused budgeted amounts and some activities were slightly changed as the Project progressed. The number of such changes does not come across as being more frequent than what one can realistically expect in a Project of this magnitude, carried out in cooperation between two countries.

The quality of training and other services rendered under the Project, be it from sub-contractors or Norwegian institutions, is generally referred to as very high. There appears to have been some issues with lower turnout than possible on some training events in Phase I, however, we have only seen this mentioned in one document and this does not affect our overall impression.<sup>105</sup>

As to the more specific planning of the activities to be conducted under the Project, this was very detailed in Phase I. The parties prepared a list of 129 activities. We are of the opinion that such detailed planning, which also entailed getting to know each other, the respective cultures and work methodologies, ensured the relevance of the activities carried out under the Project.

We have neither heard nor seen any comments regarding the relative weight given to health, safety and environment in the Project and we thus assume that the balance was fit for purpose.

The long Project period is another element which rendered the Project effective because it ensured time for implementation.<sup>106</sup>

We have not heard of any other projects initiated by other donors that overlapped or interfered with the Project, although there were some project that were interfacing. As far as we can gather, the main area on which the Project has had interfaces with other stakeholders was through the use of sub-contractors and indirectly through consultations of regulatory tools developed. DNV<sup>107</sup> expressed that they were impressed with the project design and organisation and capacity building philosophy. DNV referred to the Project schedule as “sensible” in the sense that it balanced adequate progress with need for time to mature thoughts and thereby gain understanding. The Project also provided for efficient technology transfer. DNV commended NPD/PSA on their professional attitude and the clear scope of work for sub-contractors.

### 5.2.3 Project design

The framework for the Project’s design is drawn up in the contractual framework. It is our understanding that Norad set some mandatory requirements as to how the Project was to be designed including a clear requirement for the establishment of a steering committee consisting of representatives from the top management to ensure that the SC had the power to decide on relevant matters and to ensure progress in the Project. Both Vietnamese (notably PVN) and Norwegian stakeholders have been involved in the Project’s design prior to each Phase. As such, and within the

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<sup>105</sup> Minutes of third consultation meeting 24.11.1998 item 3.2.1 on page 3. The issue of the selection of the employees to be trained, and to which extent those selected were the most eligible candidates was raised in the interview with the NCA. However, when asked, other interviewees did not really consider this hindrance, thus this issue is not discussed further here.

<sup>106</sup> Emphasized by both PVN and NPD/PSA. The latter expressed that in hindsight, Phase III was perhaps the most important phase for the success of the Project.

<sup>107</sup> DNV interview 17.04.12.





framework of Norad's requirements, the design of the Project comes very much across as an outcome of cooperation.

#### 5.2.4 Monitoring

We have the impression that the monitoring of the Project has been adequate. We understand that monitoring of implementation and progress was mostly conducted by the parties in the consultation meetings and the SC. The SC was effective because top management was involved and promoted effective project implementation. In addition to this monitoring, there have been regular independent audits as well as reviews and appraisals. As from Phase II there was a PSU for day-to-day management. We have not seen or heard any comments on the efficiency of the PSU and we therefore assume that it worked satisfactorily.

### 5.3 Efficiency

#### 5.3.1 Overall impression

In the following we will present our evaluation as to the efficiency of the Project in the sense that we will evaluate qualitative and quantitative Project outputs in relation to the inputs. This is an important element when evaluating development programmes; however, in relation to this particular Project it is important to keep in mind the difficulties in measuring the gains in HSE improvement. As is mentioned below, our impression of the Project is that it has by and large been efficient.

This is supported by the fact that the stakeholders we have met, and who have had adequate knowledge on the Project design, have all spoken favourably of the project design and its implementation as well as its management. NPD/PSA highlighted the benefits of using ProjectPlace as a tool in complex Projects. The good cooperation climate, both between Vietnamese and Norwegian institutions as well as amongst the Norwegian institutions has been frequently highlighted as a success criterion. Issues like dedication, interest for the other party's culture and good personal relations have been mentioned as contributory in this respect.

On the basis of the documentation and information provided to us, it is very difficult to provide an evaluation of the value for money and resources spent by Norwegian authorities in the Project. However, as we deem the relevance, the effectiveness and the general efficiency of the Project as high, and as the Project seem to have had at least the desired impact and have led to sustainable results, we find it impossible to conclude that the value for money has not been satisfactorily. There are issues that could have been improved and perhaps thus contributed to a greater value for money, such as reducing travel costs and securing competitive procurement processes. However, as for travel costs the explanation provided seems appropriate and as for procurement it will remain unclear whether a different process would have resulted in reduced costs whilst still producing the same results.

The only negative element that has been mentioned and discussed during interviews – and which is apparent from the documents reviewed – is the delays in invoicing from the Norwegian parties. This issue was addressed several times throughout the Project period and by several parties including auditors, the Bridge Group in the End-Review of Phase II and Norad, see item 4.3 and 4.4. Nevertheless, it appears that this issue has remained a problem up until the very end of the Project. This has reduced the possibilities for efficient Project management. In Phase I there were some difficulties caused by differences in accounting standards in particular with respect to requirements to submit vouchers for expenditures, however, this appears to have been solved for the next Phases.

### 5.3.2 Risk management

We have the impression that risk management was mainly handled through the SC meetings, the reporting requirements and the independent audits. The main anti-corruption measures were rules in the applicable contractual framework, stringent accounting rules, collecting all Norwegian funds into one separate account and reporting requirements and audits. NPD/PSA informed that they deemed risk management to have a high level due to stringent organization of the Project with bi-annual SC meetings and reporting requirements, and Klif, NCA and PVN had similar comments.

### 5.3.3 Reporting and management

Though never raised by any of the interviewees, our review of the documentation received reveals several comments on inadequate reporting.<sup>108</sup> However, each such issue must have been deemed as minor, as they appear to have been solved on a case-by-case basis. One interviewee indicated that the level of reporting was just enough but “*there should not be any more reporting requirements*”.

As for the set up and the actual management of the Project, there was an increasing level of control by Vietnam throughout the Project period. As already mentioned PVN had an increasing control on the Project management in Phase II and III, see item 4.1.4. NPD/PSA also informed that Vietnam spent an increasing share from their own funds<sup>109</sup> as the Project progressed and that PVN also invested a lot of time and human resources on the Project. The NPD/PSA considered these elements as contributory towards success.

### 5.3.4 Procurement – sub-contractors

In Phase II, PVN was in charge of procurement and four sub-contracts were entered into with Norwegian companies, all by direct award and in accordance with Vietnamese procurement regulations. As pointed out by both Norad and in the End-Review, the contract entered into with DNV exceeded NOK 4.6 million and a procurement process based on competition and market transparency would have been more appropriate, and could potentially have increased efficiency.<sup>110</sup> Further, there were delays in Phase II and possibly in Phase III partially due to lengthy contract negotiations.

### 5.3.5 Potential improvements

When asked on input on potential improvements on Project organization, management or set up in order to increase the effectiveness of the Project most interviewees had nothing to say. The little input we got on this issue had the character of wisdom gained in hindsight. PVN did suggest that there could have been greater involvement of PVN in the initial phase, however, it was acknowledged that this would have been hard to achieve under the then present circumstances.

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<sup>108</sup> E.g. Minutes of the fifth SC meeting 25.02.2000 item 3.2, telefax from NPD to PVN 20.03.1998, Periodic report 01.07. – 31.12.1998, Minutes from the second consultation meeting 05.07.2002 item 5.1.

<sup>109</sup> See item 4.1.6.

<sup>110</sup> Agreed minutes of the final consultation meeting 31.07.2007 item 3.4 and the final report from the Bridge Group, item 5.2 on page 21. Had Norwegian participating authorities been responsible for procurement, one would undoubtedly have had to apply a competitive procurement process.

### 5.3.6 Gender

The gender issue<sup>111</sup> in the context of the Project was discussed in the interviews, more specifically whether the Project had contributed towards lawmaker's and companies' ability to pay attention to the gender issue. Based on the responses, it does not seem to have been much awareness of the gender issue in the Project, and no particular attention appears to have been given to the issue in the Project. However, PVN informed<sup>112</sup> that it has a sound gender balance and compared to other parts of the Vietnamese working society, a relatively high percentage of leading positions are held by women. It was stated that this reflects that PVN is a pioneering company in this respect in Vietnam, and that both women and men participate at all levels in the management of exploitation of the natural resources. Furthermore, it was stated that given the role of women within PVN's organization, women have to a large extent been active participants in decision-making and implementation processes relative to the Project.

## 5.4 Impact

All of those interviewed refer to noticeable improvements of the HSE level in the Vietnamese petroleum industry, especially within PVN, as a positive impact of the project. In our meeting with PVN on the 7 May, 2012, we were shown some figures on key performance indicators relating to HSE – such as accidents and incidents per man-hour/year etc. – which clearly demonstrated a declining curve during the Project period.<sup>113</sup> This picture was strengthened by similar information received in meetings with PVN subsidiaries such as PV Drilling, PV Gas Joint Stock Corporation and even PV Fertilizer & Chemicals Corporation. The fact that this latter company does not operate within the oil and gas industry, but nevertheless follows the same internal guidelines and HSE management system as PVN's oil and gas subsidiaries and gas, could be a positive reflection of the impact the development of an HSE management system within PVN as an industrial conglomerate have had on its' total operations.

None of those we have talked to have referred to any negative impacts. On the contrary, we have heard about what has been referred to as a “dramatic change in behaviour” towards HSE in PVN. This change appears to have had an impact on the Vietnamese petroleum industry in the sense that it has have transpired into the rest of the Vietnamese petroleum industry (e.g. local contractors) or have eased the HSE work of others (easier for IOCs with stringent internal requirements to gain support in the contractor group to spend money on HSE measures). The Project is said to have introduced a unique way of working with HSE in Vietnam<sup>114</sup> and it has been praised for help develop highly qualified staff within HSE in PVN.

Although MONRE explicitly stated that they had little information about the Project, we have been informed that important activities and documents in relation to Vietnamese environmental regulation and management have been developed through the Project. This comprise a.o. the environmental sensitivity index, guidelines for monitoring the environment, a manual for environmental auditing, updating and further developing of PVN's oil spill contingency plan, and the development and

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<sup>111</sup> In the allowance document («Bevilgningsdokument») from Phase I dated 10.10.1996 it is stated that the gender aspect is evaluated and not regarded as relevant in the Project.

<sup>112</sup> PVN interview 07.05.12.

<sup>113</sup> We have requested a copy of this information, but have so far not received this.

<sup>114</sup> MOIT interview 08.15.12.



execution of training programs relating to the foregoing. In terms of specific activities under the environment management part of the Project, we have been informed that the oil spill response plan was in use after an oil spill in Vung Tau in 2001.<sup>115</sup>

We are left with an impression of confidence when all the PVN subsidiaries we met with informed us that they are following the group's internal guidelines and that there is a centralised inspection, control and follow-up system within the PVN group. We have observed that the HSE management system has been implemented in PVN and its subsidiaries with the impact on HSE culture and approach as described in 5.2, and we have been told that PVN uses the HSE management system, unless in conflict with domestic mandatory requirements, in its international operations.

All of the above are, intended and expected, albeit very ambitious, elements of impact under the Project. As already mentioned, an unintended positive trend is however the information we received that the Vietnamese authorities express a wish to expand this HSE approach to a wider circle of industries.

## **5.5 Sustainability**

It is still early days to evaluate sustainability. However, all those we have spoken to confirm that the Project has resulted in an HSE culture that is now being absorbed into PVN as a company group. As mentioned, the HSE culture is now so strong that it also responds to serious accidents in other countries and spurs workshops on potential improvements in the Vietnamese systems.<sup>116</sup>

The approach taken with respect to the possibility for improving the environmental management system following the Deepwater Horizon incident contributes to an impression of PVN as a company group that does not stand out in a negative way when compared to its peers: We were informed that a "post DwH-seminar" was arranged with relevant stakeholders, a task force has been established to look at specific measures and to come up with proposals for new legal requirements and guidelines. Although this is not a unique approach, it demonstrates that the company has an environmental awareness and a willingness to improve.

The HSE management system now comes across as an integral part of PVN corporate governance. NPD/PSA was the opinion that the HSE Management systems will be further developed and is in use; this has been confirmed by PVN and our observations during the field trip strengthen this impression. Nevertheless, it will be important to continue and further develop training courses to enhance "the collective competencies and knowledge" of PVN and its subsidiaries due a.o. to the fact that employees often shift positions. Whilst PVN stated that this is not a problem, MOIT emphasised that PVN needs to pay attention to this in order to secure sustainability.

There are still elements however that may challenge the sustainability of the Project; this particularly pertains to audits. Will audits be conducted in cases where it may be expected that the results may be poor? Another challenge to sustainability is when staff that have been trained under the Project either leaves PVN or move to other positions in PVN. It is important that PNV continues training of its staff and we got the firm impression that PNV addresses the need for continued training systematically.

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<sup>115</sup> Minutes of the final consultation meeting, 25.04.2002.

<sup>116</sup> PVN reported that there had been a workshop in the wake of the Deepwater Horizon accident.



Lastly, it seems also that there is still a way to go in terms of clarifying authority responsibility with respect to enforcement of HSE requirements towards other companies engaged in Vietnamese oil and gas activities.

## **6 FINDINGS, CONCLUSIONS AND LESSONS LEARNED**

### **6.1 Overall impression**

In performing this End-Review, we find that the Project has achieved all its major objectives. The HSE and environmental management systems in place in the Vietnamese oil and gas industry have improved substantially during the Project period, which – it seems to us – is at least partly due to the activities of the Project. In broader terms, it is worth noting that several Vietnamese stakeholders in the Project have mentioned the possibility of transferring the HSE and environmental management systems and culture to other industry sectors.

### **6.2 Lessons learned**

#### **6.2.1 Secure early involvement**

It has been pointed out that if the Vietnamese involvement had been stronger in the early phases of the Project, it would have been easier to obtain a sense of ownership to the development of the HSE and environmental management systems at an earlier stage.

#### **6.2.2 Clarify administrative requirements and procedures**

Ensuring that both parties' administrative requirements and procedures are understood and readily implemented with project management could ease administrative tasks and thus enhance efficiency.

#### **6.2.3 Make it stick**

Developing and communicating a strategy for handling of the risk that employees who have undergone training leave the company or take on new positions where the training might not be relevant stands out as something that could have been beneficial.

### **6.3 Key success factors**

Almost all of the persons and companies interviewed who had taken part in the Project emphasised the organisation and management model of the Project as the most important success factor.

Other key success factors include the duration of the Project – it was stated that a long project period enhanced the understanding of modern HSE-principles, increased the possibility for a positive impact and sustainability of the Project – and the ownership of PVN to the Project which had included top management. In this regard, it is also worth mentioning the “people skills” of the Project management and key persons as a key success factor; many of the interviewees have underlined the particularly good relationships that were developed through execution of the Project.

The above is set out in more detail in item 1.3.