Oil for Development Ghana 2010-14: Moving towards a "Second Generation" Programme?

Review of Norway's Support to the Petroleum Sector in Ghana

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Oil for Development Ghana 2010-14: Moving towards a "Second Generation" Programme?

Review of Norway's Support to the Petroleum Sector in Ghana

Final Report - Draft



Project: Review of Oil for Development Programmes in Ghana

2010-2013/14 "Strengthening Resource Management in

the oil and Gas Sector" and "Strengthening

Environmental Management in the oil and Gas Sector"

Client: Royal Norwegian Embassy, Ghana

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Acronyms and Abbreviations

ABFA Annual Budget Funding Allocation

BoG Bank of Ghana

EITI Extractive Industries Transparency Initiative
EPA Environmental Protection Agency (Ghana)

GAS Ghana Audit Service (Ghana's SAI – supreme audit institution)

GHEITI Ghana EITI

GHF Ghana Heritage Fund

GNPC Ghana National Petroleum Corporation

GRA Ghana Revenue Authority
GSF Ghana Stabilisation Fund

IAC Investment Advisory Committee

IMR Institute of Marine Research (Norway)

IOC International Oil Company

LC Reg Petroleum (Local Content and Local Participation) Regulations, 2013

MESTI Ministry of Environment, Science, Technology and Innovation (Ghana)

MoEP Ministry of Energy and Petroleum (Ghana)

MSG Multi-stakeholder group (GHEITI)
NCA Norwegian Coastal Administration

NDR National Data Repository

NEA Norwegian Environmental Agency NPD Norwegian Petroleum Directorate

NME Norwegian Ministry of the Environment (as of 1 January 2014 Norwegian

Ministry of Climate and Environment)

NMPE Norwegian Ministry of Petroleum and Energy

PC (Ghana) Petroleum Commission

PEP Bill Petroleum Exploration and Production Bill

PHF Petroleum Holding Fund

PIAC Public Interest and Accountability Commission

PRMA Petroleum Revenue Management Act (815)

Ptil Norwegian Safety Authority (Petroleumstilsynet)

RWI Revenue Watch Institute

STAR Strengthening Transparency, Accountability and Responsiveness (CSO)

STEPRI Science and Technology Policy Research Institute

TPU Tax Policy Unit

1 Executive Summary

Norway's Embassy in Ghana contracted a review of the *Oil for Development* programmes regarding Resource and Environmental management 2010-2014, and a possible second phase. This report provides the findings, conclusions and recommendations by the team.

Resource Component: Achievements

Main achievements

- The support to separating roles and functions of Government, anchoring the role as
 policy maker, regulator and commercial actor in separate organisations, and in
 particular the establishment of a strong and independent regulator, is perhaps the most
 important achievement.
- The assistance to the petroleum sector legislation is also a major result, and the process of drafting technical regulations has also been very successful.
- The support to the establishment of the Petroleum Commission and the upgrading and porting of the large database to the new National Data Repository at the PC is also a major achievement.

Main short-comings / non-attainment of expected results

- Technical training and implementation of resource assessment, subsurface and development issues functioned well at GNPC, but were delayed by the delayed formation of PC, and it is doubtful if it can be finalised within the given time frame.
- The Gas Export project was put on hold due to lack of request from Ghana until 2013.

Main factors of success

• The programme has been defined by Ghana, which has guaranteed the ownership and thus the strong political and management commitment to the contents and implementation of the programme.

Stumbling blocks for achievements

- Building of offices and recruitment of staff took longer than expected, which has had knock-on effects in terms of implementation of certain components.
- The porting of data to new formats and media has been a slower and more complicated process than expected and has held back progress in this field.
- The gas sub-component has been problematic. Ghana wants to reduce its dependence on Nigerian gas supplies for power production, as these have become less dependable. Ghana also wants to see how its natural gas can be used as feed-stock for a fertiliser industry. Norway originally suggested to export the gas, but a 2013 mission requested by Ghana has made new proposals, with follow-up from Ghana awaited.

Lessons for the future

NPD has proved to be a good and prudent coordinator for the resource component, and
any continuation of support to the resource component could be based on the same
structure as the June 2010 programme.

Petrad has performed excellent in designing training and educational programmes.
 These programmes could be extended to include academics and CSO staff and not be restricted only to government staff.

Environmental Component: Achievements

Main achievements

- The establishment of the Petroleum department in EPA.
- Marine environment Survey of bottom sediments completed.
- SEA final report finalised in three separate volumes: Process, Content, and Executive Summary.
- The Western region spatial development framework completed and approved.
- Ca. 500 fisher folk educated and consulted on implications of oil and gas development on their livelihoods
- EPA Petroleum Department staff and 12 Western regional office staff trained on petroleum operations, health and safety, environment consideration for oil and gas, and legal frameworks for health and safety
- Review of National Oil Spill Contingency initiated. Draft MoU between stakeholders in National Oil Contingency Plan developed, but while revision is completed it lacks signatures from stakeholders.

Main short-comings / non-attainment of expected results

- MESTI has taken over the administration of the programme rather than having consultants assist in its administration. This will strain the Ministry's own capacities, which are limited, and this may affect continued smooth implementation.
- The vulnerability of public institutions losing their trained staff to the private sector is a concern. The sector needs to think about various strategies to address this such as training more staff than needed, thereby planning for a certain continuous attrition rate (redundancy training).
- At the Annual Meeting, the Work plan and budget were not approved due to cost rollover from 2012 research cruise, which was not accommodated in the budget prepared.

Main factors of success

- The clarity on the Ghanaian side as to what they wanted allowed them to be in the driver's seat.
- The collaboration between the Ghanaian and Norwegian parties is good, built to a large extent on the trust that has evolved over the years but also because the two sides are structurally quite similar: they have similar mandates and responsibilities, which makes it easy for the staff to work well together.

Stumbling blocks for achievements

• A new team that took over at MESTI had limited information and experience regarding how to manage the programme. Despite the fact that the team made considerable effort

- in familiarizing itself with the programme, the change, particularly, at the time it occurred constitutes a major risk to the Programme.
- The major deviation from plans in 2013 constitutes new risk to the programme in that most of the outputs has been rolled into 2014 with the assumption that the NOK 9 mill requested as additional funding would be approved and made available for the implementation of activities leading to those outputs.

Lessons for the future

• The flexibility of implementation arrangements must be kept – that the Environment component is able to "steer itself" based on its own needs, and that the communication between the parties therefore remains close and constructive.

Looking Ahead: The Three Components

Resource component:

- First priority should be given to the request from the Petroleum Commission, since this is both a central actor, and the one that is most in need of rapid improvements to its capacities. The specific request from the PC should be reviewed by the NPD for realism and scope, but would seem to be based on a realistic review of its needs.
- MoEP must have the capacity to analyse the sector, critically assess and define policies that are in the nation's interest while working with the Petroleum Commission but also listen to views and suggestions from Parliamentarians, GNPC, GNGC, IOC's and civil society. For this MoEP needs a well-trained cadre of 6-8 technical staff.
- The National Data Repository is well under way, but to ensure that this is fully installed and functional might take another two years.
- There is a need to continue and enlarge the understanding of the petroleum value chain by politicians, civil society, and staff in the public sector. This training should be transited to national training institutions as soon as possible, so Norwegian assistance becomes focused on quality assuring and updating the contents.
- The GNPC asked that it be assisted in taking on more commercial responsibilities as a state oil company. It is felt that the GNPC as an actor that both receives funding over the state budget but also has close links to IOCs should be able to build the capacity building programmes it needs on its own without further Norwegian support.

Environment component:

- The support for the Ministry is unclear since no specific request has been received, but MESTI staff should be included in general training regarding the petroleum sector value chain. Issues of how to manage the environment component is of a more general nature that OfD is not well placed to support.
- EPA has in general terms asked for support to build its petroleum department and upgrade laboratory staff. Norway should be positive as these are difficult areas where good science and sufficient staff size is required to comply with the needs the state has for insight and control. But there needs to be a realistic timetable for when Norwegian support can be phased out. It also seems that much of the skills are of the kind that national institutions can provide, especially on the laboratory side.

- With regards to TCPD, it is unclear how much further technical assistance is actually required as it appears it has largely acquired the spatial planning skills it needs and requests are more for financing additional spatial plans.
- Concerning STEPRI, its funding is not from the OfD, but OfD may wish to keep an eye on how the issue of local content can be addressed as this is central to Ghana's longer-term strategy for ensuring larger and sustainable benefits from the petroleum sector.

Revenue component:

- The request for Revenue Management as a new component in the OfD programme should be supported, and with an appropriate budget allocation.
- The structure of the component has been discussed by the parties and can be considered ready for approval whereas the actual programming remains to be done.
- The training programme should be handled by Petrad. It should cover all three components, ensuring consistency and synergies across fields, maximize local contents of the training for maximum relevance, and identify a local partner/institution that over time should assume an ever greater share of the training.
- Petrad should structure the training in modules that can accommodate a wide range of stakeholders and not just the public administration. This is to ensure a broad labour market approach to capacity development, but also to ensure that the knowledge and skills required for genuine citizen participation and oversight is developed.
- The partnering foreseen, with the Norwegian Oil Taxation Office, the IMF and possible other skills centres, needs to be tailored both to the local requests but also in light of support funded by other actors. Ghanaian authorities will be expected to coordinate and manage the various other capacity development programmes being offered.
- Ghana starts from a relatively strong institutional, organisational and human resources base when it comes to the financial sector. An exit strategy for the support during the coming five-year period is realistic and should be an integral part of the programme.

Beyond Components: Governance and Local Content

Public Sector Oversight and Control:

- Strengthening Parliament's capacities for petroleum sector policy development, oversight and control is critical, and a programme for continuous updating of such skills and knowledge is key. If requested, OfD might find a Ghanaian knowledge centre (such as a university) that could act as a continuous partner for such efforts, both for Parliamentarians and possible technical staff for the Select Committees.
- The Ghana Audit Service should be included in the proposed Revenue component as a training partner along with GRA and MOF. Of D should see to what extent Norway's Auditor-General's office can provide support in addition to whatever assistance AFROSAI-E is able to provide.
- PIAC and GHEITI members/staff should also be invited to relevant training activities, where one consideration is the net-working effect joint learning activities has.
- To the extent key bodies Parliamentary Select Committees, PIAC, GHEITI require direct financial assistance in order to upgrade their performance, Norway should consider providing this dependent on (i) a clear commitment by Ghana to provide

sufficient own funding within the programme period (for example through increased ABFA ear-markings), (ii) the funds can be channelled through a neutral mechanism, to avoid appearance of interference or attempts to curry favour by Norway.

Civil Society:

- The civil society structures for engagement in the extractives sectors appear representative, knowledge-based and strongly engaged, including in GHEITI and PIAC. As with public oversight bodies, however, there is a need for continuous skills upgrading and resources to ensure effective monitoring and knowledge production. Norway can support by inviting civil society actors to relevant trainings, and provide funding for relevant activities, again through independent funding mechanisms such as STAR Ghana. Support should focus on strengthening core organisational capacities.
- Media are in a particularly vulnerable situation since they are increasingly subject to market forces, where the mining and petroleum industries can mobilise considerable resources for disseminating their views on issues. Whether Norway/OfD has any particular role to play in the context of Ghana is not obvious, except (i) encouraging funding mechanisms like STAR Ghana to ensure sufficient funding for continuous upgrading of journalists' skills, (ii) provide strong support for the principle of a free and fair press when it comes to reporting on the extractives sector.

Local Content:

- While local contents development is a critical priority for Ghana, OfD has little to contribute except possibly having Petrad put together relevant courses for local industry. This must be based on a clear needs assessment, and that Petrad has the resources to implement such training in collaboration with a local skills centre.
- Any other Norwegian support to local contents development should be handled outside the OfD program, but should be coordinated with OfD where useful.

Regional Collaboration:

 Norway should look into how constrained OfD resources can generate wider impacts through supporting Ghana's role as a regional knowledge and experience hub, for both public administration and non-state actors.

Looking Ahead

A second phase of OfD support should be provided:

- OfD has provided targeted and demand-driven assistance to key Ghanaian actors that
 are central to the country's ability to manage the petroleum sector and its revenues.
 This collaboration should continue, building on the strong foundations and levels of
 trust established.
- A second phase programme 2015-2020 should be built around the three standard components of an OfD programme Resource, Environment and Revenue but with an exit strategy designed for each one of them.

A "Second generation" governance concept should be a strategic part:

- A fourth Governance component, to be managed by the Embassy, should be included, with sufficient resources to provide flexible but comprehensive support to political and non-state actors important for strengthening overall accountability regarding petroleum sector benefits.
- A regional role for Ghana within a larger OfD perspective should be considered both
 as a means of increasing the effectiveness of scarce Norwegian resources, but also as a
 means for building stronger local capacities and effective peer learning.
- Training that accommodates a wider range of actors and an increasing role for Ghanaian knowledge centres should become a cross-cutting dimension of the support.

Programme management should move towards the field, be flexible:

 To accommodate the increasing complexity of the programme, a national programme coordinator might strengthen the transfer of roles to Ghanaian partners, ensure necessary coordination across components, build bridges across the various actor groups involved in the sector, and assist both Norwegian and Ghanaian in the implementation of their tasks.

2 Background to the Review

In December 2010, Ghana and Norway signed two Programme Agreements under the Oil for Development (OfD) programme: "Strengthening Resource Management in the oil and Gas Sector in Ghana" (GHA-09/018) and "Strengthening Environmental Management in the oil and Gas Sector in Ghana" (GHA-10/0010). The objectives were to strengthen resource and environmental management in the oil and gas sector in Ghana over the period 2010-2014 with budgets of NOK 50 million and NOK 40 million, respectively.

The Norwegian Embassy in Accra contracted a combined mid-term and end review of this programme: an assessment of results so far produced, and a first appraisal of proposals for continued collaboration requested by the Government of Ghana.

This report thus first presents the achievements in the resource field (chapter 3) and the environment field (chapter 4).

The report then looks at the proposals for future collaboration in the fields of resources, environmental and financial management (chapter 5), before turning to general governance issues (chapter 6). The report ends with an overview of possible future collaboration areas and principles (chapter 7).

2.1 First Phase of Collaboration

In October 2007, Ghana applied for assistance through OfD. In February 2008, during Ghana's National Forum on Oil and Gas Development, a Memorandum of Understanding (MoU) was signed for long term cooperation within the OfD programme.

During the subsequent two and a half years, Norway assisted in the development of Ghana's petroleum policy and the master plan for the sector. It helped in the evaluation of the development plan and the agreement for the Jubilee Field. And Norway supported the Jubilee Environmental and Social Impact assessments. During this period, assistance was also provided for the development of petroleum legislation and the management of petroleum data.

While focus initially was on the petroleum resources, in 2009 environmental matters were added as a field of concern. Marine environmental surveys began with the "M/S Fridtjof Nansen" research vessel, a programme that continued through 2012.

During this period the more long-term collaboration was also designed, which was finally signed in the form of the five-year programmes that form the basis for this review.

2.2 Scope of Work

The main *purpose* of the review is to prepare the basis for a decision by Norway on whether to accept formal requests from Ghanaian authorities for the extension of the cooperation and, if so, assist with the finalisation of the necessary draft Programme Document(s) to that end. The three *objectives* of the task are the following:

• Identify results achieved and experiences made since the signing of the Programme Agreements in 2010.

- Outline content of possible new phase(s); objectives, broad baselines, agreement structure, programme administration procedures, risk management etc.
- Optional: Produce Programme Document/s if and when requested by the Embassy.

2.3 Deliverables

The team is to produce the following *deliverables*:

- A debriefing seminar at the Embassy/Accra, to present preliminary findings, conclusions and recommendations at the end of the field visit.
- A Draft Report that will be structured according to Norad's Guidelines for Reports. The report will contain an Executive Summary that contains findings, conclusions, 'lessons learned' and recommendations of the team, plus necessary annexes. This will be presented to the Embassy within eight weeks of signing the contract.
- **The Final Report** will be produced at the latest two weeks after receiving all comments to the Draft Report.
- A debriefing video-conference will then be organised by the Embassy in Accra and with the stakeholders the Embassy invites into the discussion.
- **Draft Programme Document/s** for possible future collaboration within six weeks of this being requested by the Embassy. The structure and contents of these draft Programme Documents will in part depend on the findings and recommendations of the mission, but first and foremost on the dialogue with the Ghanaian authorities on the matter.

This draft report thus represents the second deliverable under this contract.

3 Resource Component: Achievements

Programme document: based on local needs and process. Following the 2008 MoU, the more comprehensive programme and planning process was based on Ghana's National Energy Policy and the related Energy Sector Strategy and Development Plan (March 2010). A Needs Assessment Workshop organized by Ghanaian authorities in cooperation with Norad and Petrad, the Norwegian independent petroleum sector capacity building foundation, took place in December 2009. The resultant programme document "Strengthening resource management of the oil and gas sector in Ghana", was formulated by Ghana's Ministry of Energy (now Ministry of Energy and Petroleum, MoEP) and the Ghana National Petroleum Corporation (GNPC), the country's state oil company (June 2010). The actual Agreement was signed on 10 December 2010 by Ghana's Ministry of Finance and Economic Planning (now Ministry of Finance), Norway's Ministry of Foreign Affairs, and Ghana's Ministry of Energy (now MoEP).

Implementation: delegated to technical bodies. The actual programme is to be managed by the two technical ministries while implementation is largely delegated to technical bodies answering to these ministries: the GNPC and Ghana's emergent petroleum sector regulator, the Petroleum Commission (PC). The Norwegian Petroleum Directorate already in 2010 (NPD) is the main partner on the Norwegian side, with the Norwegian Safety Authority (Ptil) and Petrad partners that were called on as and when required.

3.1 Objectives and Results in Programme Document

Programme Goal: based on clear Government policy objectives: "The goals of the petroleum sub-sector are to ensure the sustainable exploration, development and production of the country's oil and gas endowment; the judicious management of the oil and gas revenue for the overall benefit and welfare of all Ghanaians; and the indigenisation of related knowledge, expertise and technology".

Programme Purpose and Outputs: operationalizing the Goal. As noted in the Programme Document, "The purpose and planned outcome of the cooperation Programme was to get institutional arrangements and capacities in place ensuring well-coordinated and result oriented governance on resource management and health, safety and environmental issues (HSE) in the oil and gas sector in Ghana. In order to achieve the defined outcome ... the planning process has ... identified desired outputs in seven main areas".

3.2 Results Produced

Table 3.1 below shows the seven programme areas, the intended Outputs as presented in the Programme Document, and actual results as they appeared in April 2014. A more detailed overview of results delivered by year is presented in Annex D, where the last column shows the intended results for 2014 (the equivalent table for the Environment component is attached as Annex E).

Table 3.1: Resource Component – Programmed and Achieved Results

Results area	Programmed 2010	Results April 2014
1. Policy, legal and institutional functions and framework	A review of relevant policies, laws, subsidiary legislations and corresponding institutional functions and framework	 PC Act passed Parliament E&P Bill approved by Cabinet and in Parliament for debate/passage LC Reg. approved. General, HSE, Fiscal Metering, Drilling and Reservoir Management regulation drafts ready for parliament.
2. Data Management, National Data Bank Repository (NDR)	Secure and implement administration of petroleum data in collaboration with the World Bank. All data available on internet.	 2 Data Centres at GNPC and PC in containers. Data QC and on digital GIS medium. Personnel trained
3. Subsurface and development issues.	Strategy, increased recovery, production of additional resources, well optimization, gas injection strategy, technical flexibility and fiscal metering systems.	 Assistance to GNPC and MOE to build their capacity in resource redetermination, work processes, international practice. Jubilee used as a case study. Training of PC staff started
4. Resource assessment	Basis for improved predictability and management of the resources	 Training provided in 2D and 3D seismic interpretation. Enhancement of capabilities on resource assessment, establish work processes, loading of data, and mapping initiated
5. Gas export project	Review pipeline system design, project management, execution, contract strategies, gas pricing, EIA, HSE systems and Safety Case. Proposals for actions and gap fillings	 The Jubilee Gas project was reviewed, report sent to GNPC. No request until 2013. Fact finding mission, team submitted draft report for comments
6. HSE regulations and management systems	Review of relevant HSE regulations. Roles and responsibility of the new regulator. Output will be recommendations, training, Capacity building.	 Petrad seminars included HSE. Training Assistance and competence building in fiscal metering and HSE/Drilling related issues done as an integrated part of the development of the technical regulations
7. Human resource development	Support capacity building at all levels in the country's technical, vocational and tertiary institutions;	 Government staff trained in value chain of petroleum sector. Technical workshops through Petrad training programmes

Programme start-up: good efficiency due to early collaboration. The programme got off to a good start since Norwegian advisers had been working with the Ghanaian partners since the MoU was signed in 2008. While there were delays in some early activities due to the unfamiliarity with the processes, study tours gave the Ghana side the opportunity to observe and thus understand better Norwegian practices and approaches. Due to this there were some major achievements already in 2010, particularly in the area of legislation.

Policy, legal and institutional functions and framework: major progress. The Ghanaian authorities took major steps regarding legislation and political frameworks: the Petroleum Revenue Act was passed; the Petroleum Commission Bill was submitted and finally approved by Parliament. A revised Petroleum Exploration and Production Bill has now been prepared and is expected to be approved in Parliament in 2014. By the end of 2011 the Petroleum Commission was formally established, and subsequent visits to Norway have provided insights into how the regulator's functions and operations have changed over time, giving inputs and inspirations for how this institution could function in the Ghanaian context. By April 2014, 65 staff have been contracted and are in place in new offices funded over the parallel support from the World Bank, which has also funded the basic equipment. Norwegian assistance is now being extended to include general regulations and technical regulations. The Local Content regulations - whose implementation and oversight is a PC area of responsibility - were approved December 2013. A core group and four technical teams have now drafted technical regulations on Fiscal Metering, Data Management, HSE, Drilling and Reservoir Management. The main conclusion is that the core tasks foreseen under this results area have to a very large extent been implemented well. While institutional development is progressing well, the establishment of an operational regulator is behind schedule due to delayed construction of office facilities and thus a need to hold back on recruitment of staff till this was in place, but these issues have now been resolved.

National Data Repository: a major challenge. The development of a National Data Repository (NDR) has been a major undertaking. The existing petroleum-sector data had been generated and stored by GNPC at their data centre. With the establishment of the PC, this responsibility was to be transferred to the Commission. Several challenges had to be addressed. One thing was that the GNPC still felt it needed the data and therefore did not wish to simply transfer its data trove to the PC. Another was that data existed in various formats and on different media, which had to be harmonised and updated so that all data could be used. The task of quality checking data and bringing them all into a modern digital form have continued and by now most data have been transferred and copied, but into two repositories: one at GNPC, which thus continues to have a full set of data, and the other at the PC. The buildings that is to house the PC data centre is not quite finished but should be ready by August 2014, while today they are kept in modern container offices. At the same time, GNPC is providing training for the data centre operators at the PC. In total eight workshops have been held. OfD has provided a project manager on site in periods. It is the team's experience that such a task always meets unexpected problems (format incompatibility, missing documentation, physical restraint, missing records, obsolete data, practical issues such as location constraints etc.) In view of this the programme has progressed as well as any other similar programme.

Subsurface, development and resource assessment: moving the issues to the Petroleum Commission. In the beginning of the programme the subsurface and development dimension as well as the resource assessment was concentrated on giving especially GNPC but also MoEP the tools and training assisting in building their capacity in resource redetermination, work processes, international practice. Jubilee field was widely used as a case study. During 2012 and 2013 the dimension was delayed waiting for the establishment of the PC. The challenge now is largely to train the more than 20 fresh technicians at PC. During the programme involving the same personnel from Norwegian side has created an

environment with open dialogue, trust and understanding of the issues. The foundation for continued twinning between Norwegian and Ghanaian institutions is thus solid.

Gas export project: lowered priority, uneven progress. Under the gas export project NPD assisted in analysing use of gas from the Jubilee Field. NPD was asked to comment on the National Gas Task Force plans, where the basic recommendation was to export it, a suggestion that was rejected by Ghana. Norway's involvement thus stopped at that point until a fact finding mission was invited in late 2013. The fact finding mission based its work on the Government's interest in using the gas for domestic purposes (power generation, feed stock for fertilizer industry etc), but by the time this review took place in April 2014 no feedback to the fact finding mission's report had been forthcoming¹. This is hence a results area where final deliverables are uncertain.

Human resources and HSE: workshop based trainings. Health, Security and Environment (HSE) dimensions have been integrated in the training courses held by Petrad, NPD and Ptil. Two of the workshops were dedicated to HSE, and a special session was held for MoEP staff. Mentoring and training has also been provided in connection with the drafting of HSE and Drilling and Reservoir regulations in 2013. In 2011 a human resources development programme was designed by Petrad targeted at personnel working in the public petroleum sector to increase their understanding of the petroleum industry and strengthen their capabilities for managing petroleum resources and development of oil and gas fields. By 2014 nine workshops with an average of 30 participants have been held. The last two workshops on "Petroleum Legislation, Revenue Management and Organization" and "Exploration, Development and Production" had 20 and 36 participants respectively from PC.

3.3 Analysis of Achievements

3.3.1 Factors contributing to success

Structural clarity improved: strengthened transparency and accountability. Since the MoU 2008 and in particular the OfD programme from 2010, the greatest achievement of the Norwegian support has been to assist Ghana transit out of a situation where the state oil company not only was the country's commercial partner in oil exploration, but also *de facto* was the regulatory body and often shaping the country's petroleum policy. Today there is a clear distinction between these roles. GNPC represents the state's financial interest and is becoming a more independent commercial operator. Policy making is now clearly MoEP responsibility, while the Petroleum Commission is the independent regulator. This separation and clarity of roles has strengthened transparency and facilitates "checks and balances" within the sector. With the promulgation of the new Exploration and Production Bill in Parliament this spring, the relevant laws will be in place.

Norwegian flexibility: trust between parties. The Ghanaian partners attribute this success in part to the readiness by Norway to quickly respond when requested, but also to the fact that

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¹ The team tried unsuccessfully to have a meeting with the Ghana National Gas Company, among other things to understand better the status of this area of work. The Petroleum Commission and GNPC also not did voice any opinions on the matter to this review mission.

Norway as a small country has been able to manage its petroleum wealth well and where the OfD programme has a reputation for providing high quality technical assistance without political or commercial ties (though it is obviously well-known that Norway has a large oil sector service and production industry that also has commercial interests in Ghana).

Experienced Norwegian partners: continuity built confidence. The success of the resource component is also attributed to the fact that it is the same experienced personnel from Norway that has been working with the Ghanaian counterparts throughout the process. However, this trust might be lacking with regards to the GNGC because of Norway's early recommendation not to utilize the natural gas in Ghana

Ghana in charge: confidence in own decisions. Finally the interviews clearly show that Ghanaian management clearly feel they were in the lead, and Norway never made any demands regarding the contents of the programme even when Ghana and Norway disagreed on particular subjects.

3.3.2 Factors hampering success

Norway funds technical assistance: challenge if World Bank support falters. The fact that Norway only funds the "soft" components of training and technical assistance has created some problems. The World Bank has been funding the equipment including computer software and the infrastructure such as the premises for the Petroleum Commission together with its National Data Repository. A complicated process of tendering, procurement and physical building has created some delays also for the recruitment of technicians for the NDR.

3.3.3 Likelihood of achieving project purpose by end of period

New regulator: time required to ensure organisational solidity: Establishment of fully functional new organisations within the existing government structure, with inexperienced personnel and with new regulative basis within a 5 years' timeframe is very difficult to achieve. Ambitious plans for the rest of 2014 were agreed to at the Annual Meeting in March 2014. It looks that all the buildings for the PC will be in place and all staff hired. It remains to be seen if the capacity of the newly (re)organised institutions – MoEP, GNPC and PC – will reach a level that satisfies the goal of "get institutional arrangements and capacities in place ensuring well-coordinated and result oriented governance on resource management and health, safety and environmental issues (HSE) in the oil and gas sector in Ghana". The key challenges remain (i) the requisite capacity of the PC actually being in place, (ii) ensuring the political independence and actual compliance enforcement powers and implementation by the PC, (iii) the transformation of the GNPC into containing also a more independent commercial operator, (iv) the MoEP retaining sufficient capacity to be able to play its role as independent policy maker without having to rely too heavily on the GNPC in particular.

3.4 Findings, Conclusions and Lessons Learned

3.4.1 Main achievements

- The support to separating roles and functions of Government, anchoring the role as
 policy maker, regulator and commercial actor in separate organisations, and in
 particular the establishment of a strong and independent regulator, is perhaps the
 most important achievement.
- The assistance to the petroleum sector legislation is also a major result, and the process of drafting technical regulations has also been very successful.
- The support to the establishment of the Petroleum Commission and the upgrading and porting of the large database to the new National Data Repository at the PC is also a major achievement.

3.4.2 Main short-comings / non-attainment of expected results

- Technical training and implementation of resource assessment, subsurface and development issues functioned well at GNPC, but were delayed by the delayed formation of PC, and it is doubtful if it can be finalised within the given time frame.
- The Gas Export project was put on hold due to lack of request from Ghana until mid-2013.

3.4.3 Main factors of success

• The programme has been defined by Ghana, which has guaranteed the ownership and thus the strong political and management commitment to the contents and implementation of the programme.

3.4.4 Stumbling blocks for achievements

- Building of offices and recruitment of staff took longer than expected, which has had knock-on effects in terms of implementation of certain components.
- The porting of data to new formats and media has been a slower and more complicated process than expected and has held back progress in this field.
- The gas sub-component has been problematic. Ghana wants to reduce its dependence
 on Nigerian gas supplies for power production, as these have become less dependable.
 Ghana also wants to see how its natural gas can be used as feed-stock for a fertiliser
 industry. Norway originally suggested to export the gas, but a 2013 mission requested
 by Ghana has made new proposals, with follow-up from Ghana awaited.

3.4.5 Lessons for the future

- NPD has proved to be a good and prudent coordinator for the resource component, and any continuation of support to the resource component could be based on the same structure as the June 2010 programme.
- Petrad has performed excellent in designing training and educational programmes.
 These programmes could be extended to include academics and CSO staff and not be restricted only to government staff.

4 Environmental Component: Achievements

Programme document: national policies and actors. Following the December 2009 Needs Assessment Workshop (see chapter 3), meetings in early 2010 were held between the Executive Director of Ghana's Environmental Protection Agency (EPA) and Norwegian environment authorities, including the Norwegian Ministry of Environment, the Climate and Pollution Agency and the Directorate for Nature Management (the latter two have now been merged into the Norwegian Environmental Agency, NEA). The main references for the preparation of the final the Programme Document "Strengthening Environmental Management of the Oil and Gas Sector in Ghana" (August 2010) has been the National Energy Policy, and the provisions regarding environmental management in the Constitution of the 4th Republic (1993), the National Environmental Policy (1991), the National Environmental Action Plan (1991) and the Environmental Protection Agency Act (1994).

Implementation: delegated to technical bodies. As with the resource component, the programme was to be managed by the two line ministries with implementation delegated to technical bodies: the EPA and the Town and Country Planning Department (TCPD) on Ghana's side, and the now merged-bodies into the NEA on the Norwegian side. In addition, the Norwegian Coastal Administration (NCA) and the Institute of Marine Research (IMR) were to assist, and where the IMR had already begun off-shore surveys in 2009.

Early results: solid foundations for new programme. Norway's Ministry of the Environment in 2008 provided advice to the EPA on the planning of the Jubilee field Environmental Impact Assessment (EIA); and in the following year provided comments to the Jubilee Field Phase 1 Development EIS Review. In 2010, assistance was provided for the Strategic Environment Assessment regarding the development of the Ghanaian petroleum sector. In addition, the IMR's "Dr. Fridtjof Nansen" research vessel has been gathering and analyzing baseline marine and coastal data and undertaking bathymetric mapping in the western and middle part of Ghana's waters. Ghanaian scientists have taken part in these studies and trained to perform such analyses as the programme was to continue through 2013.

4.1 Objectives and Results in Programme Document

Programme Goal: emphasizing the environmental foundation for oil exploitation. The Goal is defined to contribute to ensuring that energy is produced and utilised in an environmentally sound manner and that Ghana's oil and gas resource endowment is managed to ensure the sustainability of the reserves and of the environment.

Programme Purpose and Outputs: operationalizing the Goal. As with the resource component, the purpose is "to contribute to developing institutional arrangements and capacities for a well-coordinated and results-oriented environmental management and HSE management in the oil and gas sector". This is to be achieved through producing one or more Outputs in each of 12 component areas.

4.2 Results Produced

Table 4.1 below shows the 12 programme areas, the intended Outputs as presented in the Programme Document, and actual results as they appeared in April 2014.

Table 4.1: Environmental Component – Programmed and Achieved Results

Results area	Programmed 2010	Results April 2014
1. Policy, legal and institutional framework	Policies and laws have been reviewed and proposals for updating, harmonization and gap filling to address oil and gas related activities, including domestication into national legislation of relevant international protocols have been developed and presented. Capacity building plans for staff have been developed and implemented	 Groundwork strategy developed Establishment of Petroleum Department (PetroDep) in EPA. Draft of Env'l Assessment and management of offshore oil and gas development guidelines finalized Website for oil and gas activities developed. EPA recruited 18 staff for PetroDep. EPA lab partially used for certain analyses, full use only when installation of equipment completed. About 60 EPA officers trained in policy, management for oil/ gas dev't.
2. Environment data, monitoring and information system	Essential env'l offshore / onshore baseline parameters established A national env'l monitoring system with a funding mechanism for cost-sharing EPA- industry for closing data gaps developed, operationalized Coordinating entity for national Env'l Monitoring Information system including improved guidelines, ICT infrastructure and data management system upgraded, operationalized for land and sea areas	Marine environmental survey of bottom sediments completed. Monitoring survey of entire coastline and offshore environment completed Development of Data Management System underway. Development of data policy for EPA, draft data policy of the Agency revised
3. Environmental Assessment/Integrated Management Planning	SEA/ Integrated Management Planning developed with broad stakeholder participation at regional, national levels, with results effectively communicated EIA guidelines, procedures and capacity for reviews of EIAs and permitting strengthened	 Ghana Gas Pipeline project commenced before the EIA was submitted, emergency review by Norwegian counterparts. SEA final report finalised in three volumes: process, content and executive summary.
4. Spatial and Land Use Planning and Coastal Zone Management	A regional spatial development framework, accommodating planning needs related to potential petroleum production has been established Coastal zone management planning strengthened and appropriate communication mechanisms established	 Western region spatial dev't framework completed, approved Platform for communication and info dissemination initial phase. Training of staff in advanced GIS. Western Region Spatial frame in place. Structure, Local Plans for the two districts prepared, approved.
5. Standards, regulations and permitting	Locally enforceable standards for oil and gas activities developed, communicated Environmental regulations for oil and gas activities, procedures and financial securities for decommissioning before end-of-use, procedures for coordination between regulators developed and proposed	 Process for enacting regulations underway, draft legislations prepared, stakeholders' comments received. Review of Env'l Protection Act and Env'l Assessment Regulation. EPA reviewing with Norwegian partners

Results area	Programmed 2010	Results April 2014
6. Compliance monitoring and enforcement	Regulatory framework for compliance monitoring and enforcement developed Decision support systems for effective compliance monitoring, timely judgment and rapid decision-making, mechanisms for measuring trends in risk level, performance disclosure rating (EPRD) system developed Capacity of members of the judiciary built through workshops, seminars	 Capacity building in platform and rig auditing. Jubilee field audited after three years operation in env'l performance of operator and ensure compliance. Audit conducted by EPA 14 staff trained, 5 conducted the audit, training and audit facilitated by Norwegian experts.
7. Waste Management	Regulatory framework regarding waste management related to oil and gas activities has been developed and proposed	One student assisted in MSc research. Initially EPA had envisaged two students; however, programme element remains open in 2013
8. Community issues, including co-existence of oil and gas industry with fisheries and other traditional industries	Institutional, procedural arrangements and mechanisms for handling community issues and promoting co- existence between oil industry and fisheries and other traditional industries established	 Ca. 500 fisher folk consulted on implications of oil and gas on their livelihoods. Issues from consultations used in on-going SEA process. 5 Metropolitan, Municipal and District Assemblies educated on oil spill threats
9. Health and Safety	Regulatory framework for HS issues at production facilities, including local enforceable standards and mechanisms for regular auditing aligned with the regulatory framework for environmental issues has been developed.	•10 Petroleum Department staff and 12 Western regional office staff trained on petroleum operations, health and safety, environment consideration for oil and gas, legal frameworks for health and safety
10. Risk Assessment and Emergency Response	Environmental risk assessment (ERA), including for transport corridors, developed, communicated An Oil Spill Contingency Plan for areas and transport corridors, developed Operational emergency response capacity strengthened: national, zonal emergency centres and surveillance in strategic locations, personnel trained, establishment of communication and media routines, specification of minimum equipment and infrastructure requirements, coordination of public sector resources with equipment available within the private sector	Review of National Oil Spill Contingency initiated. Draft MOU between stakeholders in National Oil Contingency Plan developed, but revision completed, lacking signatures from stakeholders.
11. Regional Cooperation	Initiative to establish agreements, techniques and procedures for transboundary issues to environmental management in relation to neighbouring countries developed, promoted	No Activities undertaken.
12. Programme management	Programme executed successfully by producing all planned outcomes within the agreed Programme budget and timeframe	Problems arose in 2013 due to un- budgeted (but planned) use of research vessel, otherwise largely on track

Frameworks: a large task still in the making. The focus has been on the EPA, where a separate Petroleum Department has been established, staff have been recruited and received some training. The laboratory has also begun doing some analyses though the full laboratory is not in place, and staff need to be trained further to carry out expected analyses. Draft of various guidelines such as for environmental assessments and national oil spill contingency plans have been prepared, though implementation agreements with relevant stakeholders are not yet in place.

Environmental data: solid baseline data in place. The programme has made major contributions in this area, with the completion of the marine environmental baseline – a unique database – in place, and monitoring survey of the coastline done. EPA's data management system is being developed, and its data policy being revised.

Environmental assessment and planning: SEA in place, EIA policies to be finalised. The major achievement is the Strategic Environmental Assessment which has been produced as a three-volume report. Particular Environmental Impact Assessments are lagging, some because EIA policies were not in place when activities started up.

Spatial planning: major achievement. The Western region spatial plan with two district structural and two local plans included is seen as a model for how Ghana should do its spatial planning in the future, with the President calling for such plans to be produced also for other regions of the country. The costs for this component turned out to be considerably higher than expected, but the result has also been to introduce new technologies, standards and skills, so this results area should be seen as highly successful.

Standards and regulations: updating still required. The work in this field is on-going and is thus not delivering as expected. By the time the programme ends, however, the programmed deliverables should be in place.

Compliance: implementation has begun. This is a demanding area of government oversight and control, but staff are being trained and have carried out the first audit of the Jubilee Field – though only after three years of operations. It is expected that with the capacity now in place there will be closer compliance monitoring, though the enforcement dimension is yet to be tested.

Waste management: regulations still to be done. A first visit to a national waste management site was carried out and the work done there found to be quite good. The regulatory framework for waste management related to oil and gas activities is not yet finalised, however, and only one of the two MSc studies on waste management has been carried out. This field, like compliance monitoring, is quite demanding, and there is still work that needs to be done before standards and performance are in place.

Community issues: consultation processes have begun. Addressing issues of competition over resources (fisheries versus off-shore oil and gas, for example) and possible negative spill-over effects of the oil and gas industry on local livelihoods is going to be a challenging task, where other donors are also providing support (DFID is supporting the establishment of a Western Regional Trust Fund, to be financed by the IOCs, for example). What has been done so far is just information and sensitisation. The extent to which this field will in fact be handled well remains to be seen, but it is also not clear that OfD has a comparative advantage in supporting this field.

Health and safety: training started but much remains. The intention was to institute regulatory framework for HS issues at production facilities, including local enforceable standards and mechanisms for regular auditing aligned with the regulatory framework for environmental issues has been developed. However, this has not yet been achieved as only staff training has been accomplished. The achievement is therefore below expectation.

Risk and emergency: initial steps in challenging fields. The major issues here are possible negative externalities from off-shore and on-shore activities, including transportation of petroleum products. Guidelines for national oil spill contingency plans remain to be finalised and stakeholders brought on-board as partners in such disasters. Performance has thus not advanced as far along as one would have hoped.

Regional cooperation: not yet begun. Activities required for trans-boundary issues related to environmental management need to be developed and promoted. This is becoming urgent given the fact that most of the countries in the Western African hydrocarbon province are either exploring for oil and gas or already producing. The political sensitivities and issues involved are substantial, but this is an area that requires attention and resources.

Programme management: gaining experience and building national capacities. Apart from having to adjust the activity plan once the higher-than-expected costs of the last marine survey became apparent, implementation has been quite smooth. What has been an issue for the Norwegian coordinator (the NEA) is that some agreements, such as with the IMR for the marine survey, had been entered into under the MoU of 2008, so before the framework agreement was in place. While communications between the parties have been good, clarity on budget responsibilities should have been in place.

4.3 Analysis of Achievements

4.3.1 Factors contributing to success

Ghana in driver's seat: clarity on objectives. Clarity on the Ghanaian side as to what they wanted has allowed them to be in the driver's seat in terms of identifying priorities and setting the pace for implementation.

Institutional framework: in place. Institutional clarity in terms of roles, mandates and thus divisions of labour are in place. Technical bodies like the EPA and TCPD are well-established bodies though the EPA has expanded by establishing a new petroleum section. These changes are, however, taking place within well-established bodies with routines, funding, staff and a history of capacities.

Technical skills: largely in place. While Ghanaian staff have required skills upgrading, Ghana has university educated staff that basically have required professional training in a field that is new to the country. Further, Ghana has a functioning labour market even for skilled labour so it is possible to find relevant skills in the labour market in most fields.

Collaboration: partnering working well. The collaboration between the Ghanaian and Norwegian parties seems to be good, also in part because the two sides are structurally quite similar: they have similar mandates and responsibilities, which makes it easy for Norwegian staff to work alongside their Ghanaian counterparts.

Norwegian partners: cost effective. Most of the Norwegians staff come from public institutions, which is very cost effective: Staff from the Ministry of the Environment are being charged at only NOK 585/hr at the time of signature of the cooperation agreement between the two ministries, and this rate is only to be adjusted according to civil service changes in Norway each year. This compares very favourably with commercial rates for similar kinds of expertise.

Institutional twinning: ensuring stability. The fact that there are institutional agreements is also significant, because it means that a Norwegian ministry is assuming responsibility for delivering a certain set of skills. Given the stability in Norway's civil service, this ensures considerable continuity compared with what a consultancy firm is likely to deliver over the same time period.

4.3.2 Factors hampering success

Political transitions: windows of uncertainty. Institutional and organisational changes are largely based on political decisions that are reflected in new laws and regulations. This is reflected in political transition costs that was witnessed after the 2008 elections, when some decisions that had not been formalised were put on hold till the new government had had time to review them. It is likely that the programme will encounter similar delays just before, during and immediately after the four-year election cycle in Ghana.

Public sector: brain drain losses? The vulnerability of public institutions losing their trained staff to the private sector as the sector grows is a real concern. Therefore the sector needs to think about strategies to address this: training more staff than needed (attrition planning); the country trains people at the universities so there is an overall balance in the demand and supply of basic sector skills so Norway could pay more attention to "training trainers".

Ministry capacity: possible constraint. MESTI has recently taken over the administration of the component, which will strain the Ministry's own capacities, which are comparatively limited, and this may affect the smooth implementation of activities.

Full overview of funding: requisite for efficient management. A particular problem arose with the funding for the last cruise with the "Fridtjof Nansen" research vessel. A total of four cruises had been agreed to. The fourth one in 2012 had been expected but a budget had not been approved. As soon as the cruise began, management began holding back other activities because they realised costs would be higher than tentatively budgeted. However, the embassy stepped in and told the Ministry to go ahead and continue the activities as planned since it was clear that funds could be found within the overall budget. Despite this, the component still was not able to move ahead as foreseen. At the Annual Meeting the Work plan and budget were thus not approved due to cost roll-over from 2012 activities.

4.3.3 Likelihood of achieving project purpose by end of period

Playing catch-up in 2014: component will deliver. The implementation of the program has been very efficient with all the activities under the EPA and TCPC on course with no serious deviations. However, in 2013 only 7 of the 16 Outputs planned for were in fact delivered. Considering the fact that the Work plan and budget have subsequently been approved, it is expected that these results will be delivered during the course of 2014. On the basis of the fact that there have not been major deviations to the programme, there is a good likelihood of achieving the programme purpose by end of the period.

4.4 Findings, Conclusions and Lessons Learned

4.4.1 Main achievements

- The establishment of the Petroleum department in EPA.
- Marine environment Survey of bottom sediments completed.
- SEA final report finalised in three separate volumes: Process, Content, and Executive Summary.
- The Western region spatial development framework completed and approved.
- Ca. 500 fisher folk educated and consulted on implications of oil and gas development on their livelihoods
- EPA Petroleum Department staff and 12 Western regional office staff trained on petroleum operations, health and safety, environment consideration for oil and gas, and legal frameworks for health and safety
- Review of National Oil Spill Contingency initiated. Draft MoU between stakeholders in National Oil Contingency Plan developed, but while revision is completed it lacks signatures from stakeholders.

4.4.2 Main short-comings / non-attainment of expected results

- MESTI has taken over the administration of the programme rather than having consultants assist in its administration. This will strain the Ministry's own capacities, which are limited, and this may affect continued smooth implementation.
- The vulnerability of public institutions losing their trained staff to the private sector is
 a concern. The sector needs to think about various strategies to address this such as
 training more staff than needed, thereby planning for a certain continuous attrition
 rate (redundancy training).
- At the Annual Meeting, the Work plan and budget were not approved due to cost rollover from 2012 research cruise, which was not accommodated in the budget prepared.

4.4.3 Main factors of success

- The clarity on the Ghanaian side as to what they wanted allowed them to be in the driver's seat.
- The collaboration between the Ghanaian and Norwegian parties is good, built to a large extent on the trust that has evolved over the years but also because the two sides are structurally quite similar: they have similar mandates and responsibilities, which makes it easy for the staff to work well together.

4.4.4 Stumbling blocks for achievements

- A new team that took over at MESTI had limited information and experience regarding how to manage the programme. Despite the fact that the team made considerable effort in familiarizing itself with the programme, the change, particularly, at the time it occurred constitutes a major risk to the Programme.
- The major deviation from plans in 2013 constitutes new risk to the programme in that most of the outputs has been rolled into 2014 with the assumption that the NOK 9 mill

requested as additional funding would be approved and made available for the implementation of activities leading to those outputs.

4.4.5 Lessons for the future

• The flexibility of implementation arrangements must be kept – that the Environment component is able to "steer itself" based on its own needs, and that the communication between the parties therefore remains close and constructive.

5 Looking Ahead: The Three Components

A maturing programme with exit planning an important component. The OfD programme in Ghana has so far only addressed two of the three components that OfD can support. In the request for a second period, however, the authorities have asked that also the revenue component be assisted. Since Ghana has a fairly well developed labour market and thus is able to build much of the required skills internally, it may also be that the OfD can phase out its support in some areas quicker than it has been able to in other countries. This chapter therefore looks at the prospects both for support and for exit from current and new fields of cooperation.

5.1 Resource Component

Familiar partners, shifting priorities. There are three public actors involved in the resource component – the Ministry, the Petroleum Commission, and the GNPC. However, the National Data Repository (NDR) *de facto* is in two parts as both the GNPC and the PC have overlapping data sets and responsibilities. The NDR therefore can be seen as a fourth actor that needs to be addressed from this perspective. Table 5.1 below shows the requests as they were transmitted during the review mission, which are generally simply extensions of the current programme of activities².

Table 5.1: Requests for further assistance, resource component, by key actor

Actor	Request
MoEP	Petroleum directorate : Help in defining clear responsibilities between MoEP, PC and GNPC. Strengthening of sector capabilities in general, but for MoEP needs one each of reservoir engineer, petroleum engineer, petroleum geologist, geophysicist, petroleum economist.
	Law office : Needs capacity building in relation of new regulations, petroleum contracts and Local contents contracts.
Petroleum Commission	The physical installations are about finished and all new staff have been hired. The challenge is that basically three senior advisors shall both lead the organisation and also mentor 60 new employees. PC wants the twinning and training arrangements in current programme to continue, with the exception of the Gas sub-component, and software and technical equipment. Over the coming years the Commission would also like all senior management to take the PETRAD 8-week course.
National Data Repository	Both PC and GNPC need this dimension to be finished so the two data centres can work properly both with respect to data input, output/analysis and quality control. An MoU regarding the collaboration between the two bodies should be put in place and the two units properly staffed and trained.
GNPC	Still needs Capacity Building, However, in view of all the new licenses, which to a large extent supply training.

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² All actors in both fields – resource and environment – were asked to submit their formal requests in writing to the team. The Petroleum Commission provide a general overview of fields in which they would like further assistance, but without a work plan, budget or expected results. None of the others provided anything.

5.1.1 Funding from other donors

Technical assistance: only Norwegian financing. There are no other actors that are directly involved with technical assistance regarding the resource component. However, the World Bank funding has been critical, as noted, for the infrastructure and equipment, and continued funding from the Bank may be needed for the final infrastructure for the NDR and the Petroleum Commission.

GNPC: commercial sources for TA. The GNPC has recently established a subsidiary commercial company that is to develop over time into an independent operator. While GNPC has asked assistance for this process, for example from Statoil, it is clear that GNPC can get its staff trained largely through the various collaborative arrangements that it has with international oil companies (IOCs) active in Ghana: there are now 12 licences with about ten IOCs that can provide on-the-job training as well as internal course participation. Furthermore, there are a large number of scholarships being offered by a range of actors, including the oil companies such as the 50 fellowships offered each year by Tullow Oil.

5.1.2 Links to previous period

First programme period: basics in place. During the first phase 2010-2014 a lot of the basic capacity building has taken place. This has covered all the seven areas identified in the programme document. For the future, the key challenge is largely "topping up" these core skills, but in particular ensuring that the regulator has the necessary number and quality of skills required to carry out its full mandate.

Value chain: key concept for full range of stakeholders. In addition it is important that all actors engaged in the sector, whether in public administration, Parliament, civil society or private sector, understand the value chain and the key issues related to the steps in this chain. While this work began in the previous period, this may be an important task to continue to provide for this larger audience.

5.2 Environment Component

Established institutions: insufficient capacities. The three public actors involved – the Ministry, the EPA and TCPD – are well-established institutions but with insufficient capacities when it comes to the challenges in the petroleum sector. The Ministry has just taken on direct administration of this component of the OfD programme and needs to be able to manage this not only from an administrative but also from a substantive perspective. The EPA has recently established its petroleum department, while the TCPD is now being asked to deliver more comprehensive spatial plans for realistic land allocations to the various actors in the sector as well as adjudicating competing demands by different actors.

Local content: role for STEPRI. The Science and Technology Policy Research Institute (STEPRI) has had a programme with SINTEF, the independent research organisation linked with Norway's University of Science and Technology. Their work is to assist local industry to be become suppliers to the oil and gas sector by upgrading the quality and relevance of their services and products, in line with the Local Contents legislation for the sector. A second phase support project is currently awaiting a final decision in Norad since the funding source for the first phase is no longer available (this is not a direct OfD funded component but is seen by Ghanaian authorities as linked with the OfD programme due to the Local Contents dimension).

Table 5.2: Requests for further assistance, environmental component, by key actor

Actor	Request
MESTI	Ministry management : More space should be created for the involvement of MESTI with regards to supervision of the OfD work in Ghana, particularly in the areas of administration and monitoring of the environmental component.
EPA	Requires capacity to be built for offshore chemicals management Wants capacity to be able to manage offshore waste
TCPD	Wants support to complete two Structure Plans and two Local plans within the emerging enclaves for oil and gas development Support to more general Capacity Building and logistics support.
STEPRI	A proposal for a second phase regarding support to local industry is in Norad awaiting a final decision

5.2.1 Funding from other donors

Norwegian funding: key source. There is no other funding available from other donors for these components, though the EPA and TCPD both benefit from the World Bank infrastructure support funding.

5.2.2 Links to previous period

Future support: building on current activities. The EPA and TCPD wish to continue the work begun under the current programme. Support for the Ministry has come up because the administrative and technical work carried out during the first phase was done by consultants working for and within MESTI but who have now been let go. MESTI thus has to take on these tasks directly themselves. While relevant staff thus need some upgrading of skills, the real challenge would seem to be that the Ministry staff already have major responsibilities. The challenge may be more on their time availability side.

Local content: OfD funding? STEPRI also wishes to continue the work begun with SINTEF under the first phase of their collaboration. Their work is a logical extension of the programme, but the funding does not in fact come from the OfD programme.

5.3 Revenue Component

Revenue component: building petroleum revenue capacities: In a letter of 11 March 2014, the Ministry of Finance (MoF) requests Norwegian assistance to build the sector's capacities in petroleum public finances, especially petroleum tax administration, fiscal regimes/government take, petroleum revenue administration and management including of the two capital funds that have been established (see below). This request thus represents an expansion of the OfD support to Ghana to also include the revenue component.

Revenue management: rules-based transparent allocations. Ghana passed its Petroleum Revenue Management Act (PRMA) in 2011. The PRMA directs all income from the petroleum sector – royalty fees, corporate income tax, carried and participating interest and area rentals – to be deposited into a Petroleum Holding Fund (PHF), and from there to be distributed according to defined rules that in principle are to be revised every three years. During the first three-year period 2011-2013, 40% was to go to the GNPC and 60% to Government. Of these 60%, the Government share was 70% as an Annual Budget Funding

Amount (ABFA) while the other 30% went to the Ghana Stabilisation Fund (GSF - 21%) and Ghana Heritage Fund (GHF - 9%). The ABFA funds are supposed to constitute earmarked increases to particular objectives, including fields that can support the development of the petroleum sector. The GSF is, as the name says, to provide a buffer for the budget to manage likely swings in the petroleum price – which would therefore affect the overall budget in part through shifts in the value of the ABFA – while the GHF is meant to be a long-term capital investment fund, much like Norway's sovereign wealth fund, and invested abroad both to build up assets abroad but also to have a mechanism in case problems of national absorptive capacity threatens emergence of "Dutch disease" problems.

Managing petroleum revenue streams: mechanisms for transparency and accountability. The PRMA sets rules for how revenue streams are to be made transparent by having all go to the PHF. It then defines allocations from the PHF, and in particular that a significant share, which is expected to increase over time, will go into two investment funds. The Bank of Ghana (BoG) is given the responsibility of the day-to-day management of the two funds while the MoF is the formal owner and policy decider for the funds. The Minister has to report to Parliament every six months on revenues collected and their actual allocations. An Investment Advisory Committee (IAC) has been established to provide the MoF with advice regarding the policies and priorities for the funds. A Public Interest and Accountability Committee (PIAC) is to report every six months to Parliament and to the public through an open report on the compliance by Government with the PRMA, covering both revenue mobilisation and utilisation. Finally, Ghana joined the Extractive Industries Transparency Initiative ten years ago, establishing the Ghana EITI (GHEITI) secretariat in the MoF. While originally focusing on the mining activities in the country, GHEITI recently published its first reconciliation report on the amounts of revenue the oil companies were to pay according to their audited accounts; the actual amounts transferred; and the amounts recorded by Government coming into the PHF. Ghana has therefore in a short period of time put in place a comprehensive and modern legislation and established a comprehensive system of actors, roles and rules for ensuring that petroleum revenues are collected and disbursed as per intentions in the legislation.

Capacity building: technical cooperation and training. In order to implement the full range of responsibilities under the PRMA, the MoF wants the OfD to support a program of formal courses addressing these issues. The idea is to spread this over a one to two year period. In addition, it requests technical cooperation agreements between (i) the Norwegian Oil Taxation Office and the Ghana Revenue Authority (GRA) and MoF's Tax Policy Unit (TPU) regarding petroleum tax administration, and (ii) the IMF and the MoF concerning public finance issues: fiscal regimes/government take, and revenue administration and management. This request is the culmination of a series of consultations, with studies identifying the particular needs to be addressed (Ovesen 2011, Ovesen 2013).

Petroleum sector training: covering the scope, reaching all actors. The idea of having Petrad organise a series of courses focusing on petroleum economics – macro-economic issues, fiscal regimes, revenue administration and management, and others – would be welcomed by the authorities. Structuring the training as a series of semi-independent modules so that participants may select those that are of greatest relevance to their own role and situation would be useful. Two issues should be considered. The first is to include as much Ghanaian expertise and experience as possible, to ensure maximum relevance. The other is to make the

courses available to a wider range of actors, including civil society and academia, to the extent they are interested (the arguments for this will be presented in chapter 6).

On the job training: addressing the particular needs of the public sector. While skills upgrading in the form of training can be managed by Petrad, the mentoring by public sector experts requires more specific agreements, as the MoF has noted. Norway's Oil Taxation Office has an agreement with OfD to provide a certain number of work-months of expertise for programmes around the world, but its capacity is limited. For this reason OfD has entered into two additional arrangements. The first is with the IMF, where IMF experts can be called upon using either a specific OfD framework agreement for this purpose, or a multidonor trust fund for Natural Resources Management, to which Norway contributes. The other is with a series of Norwegian consultancy milieus that include former civil servants, academics, petroleum sector experts and consultants who can be contracted to deliver particular services (a couple of these experts have already been used in Ghana). When putting together a possible Revenue Component, the parties should be clear on which tasks can be covered under which agreements. Staff in the Ghana Revenue Authority (GRA) note the importance of learning from civil servants who have a similar mandate to their own. At the same time, some of the specific requests made were for training in sophisticated fields like how IOCs use hedges, derivatives, forward contracts etc. when pricing the petroleum, while the complexities of metering gas and estimating actual market value was also raised. The first set of issues came from staff in the Petroleum Unit in the Large Taxpayers Office in the Domestic Tax Division, while the second set of issues came from staff in the Petroleum Unit in the Customs Division, where the latter sometimes feels forgotten yet are critical for the assessment of the tax base. Many of the above issues can clearly be addressed also by private sector trainers, so the challenge when putting together the actual capacity building packages is to sort out what are truly mentoring/on-the-job training tasks, and what can be handled through more formal training, including using local resources.

Designing the programme: adjusting to what others offer. The World Bank's petroleum sector capacity building program, with its USD 38 million budget, is formally to come to a close in May 2015, but will probably be extended by one year. This has largely funded the equipment, facilities and software that have been required for many of the actors in the sector to implement their tasks, and its programme coordination unit has been important in ensuring coordination with the OfD inputs. The OfD program would clearly not have achieved nearly as much were it not for the inputs from the Bank project and the management support from the coordination unit. The Bank may provide a follow-on programme in this field if requested by the authorities, but so far this has not been discussed. If the Bank continues with another similar programme, this will be a big help for the OfD activities. If the Bank instead moves out of the sector, OfD will probably need to look at how some of the sector coordination may have to be supported by OfD itself. -Germany's GIZ is providing considerable support to the Large Taxpayers Office in the GRA. While the petroleum unit's 16-member staff have benefited from some of the GIZ funded training, there has so far only been one course on petroleum sector issues (GIZ uses among others the CWC group as a training partner, a UK based company known for its petroleum sector expertise where also senior Norwegian experts like Willy Olsen are involved). - The Netherlands have concentrated on the Customs Division in the GRA, though the Petroleum Unit has so far not benefited any capacity building activities there, though they expect this will change as the programme evolves. - UK/DFID has discussed possibilities for supporting the GRA during the last three years, with the expectation that this may soon begin. What the fields of concentration would be is not clear. – Norway has a very strong reputation regarding the petroleum revenue field, but it is clear that any specific program undertaken needs to be aligned with the activities sponsored by others. Given Ghana's strong lead in the other components of the programme, it can be assumed that the national authorities will ensure that this will also be addressed here.

Building sustainability: designing the exit. Ghana has a fairly large pool of skilled staff that constitute a solid foundation for building the additional capacities required. While the petroleum sector poses particular challenges, Ghana has taken many steps to strengthen its oversight and control mechanisms and bodies. At the heart of these, however, must lie a skilled civil service with attention to comprehensive, consistent and quality information and analysis, available to decision makers and the public at large. It is thus important that the ability to produce such skills becomes embedded in the country's own institutions as soon as possible. Continuous training and upgrading of skills will undoubtedly continue through international exchanges, workshops, but the specific support requested from Norway in this field should have as its point of departure that there should be a clear set of criteria for success, so that a realistic exit strategy can be designed. – It is for Ghana to identify solutions to how skills development capacities should be developed and where they should be housed (which national universities, for example). But an important part of the revenue component should be to build local capacities for training in this field, since Ghana is starting from such a reasonably high level of experience that an exit towards the end of a five-year programme period may be realistic.

5.4 Findings and Conclusions

5.4.1 Resource component:

- First priority should be given to the request from the Petroleum Commission, since this is both a central actor, and the one that is most in need of rapid improvements to its capacities. The specific request from the PC should be reviewed by the NPD for realism and scope, but would seem to be based on a realistic review of its needs.
- MoEP must have the capacity to analyse the sector, critically assess and define policies that are in the nation's interest while working with the Petroleum Commission but also listen to views and suggestions from Parliamentarians, GNPC, GNGC, IOC's and civil society. For this MoEP needs a well-trained cadre of 6-8 technical staff.
- The National Data Repository is well under way, but to ensure that this is fully installed and functional might take another two years.
- There is a need to continue and enlarge the understanding of the petroleum value chain by politicians, civil society, and staff in the public sector. This training should be transited to national training institutions as soon as possible, so Norwegian assistance becomes focused on quality assuring and updating the contents.
- The GNPC asked that it be assisted in taking on more commercial responsibilities as a state oil company. It is felt that the GNPC as an actor that both receives funding over the state budget but also has close links to IOCs should be able to build the capacity building programmes it needs on its own without further Norwegian support.

5.4.2 Environment component:

- The support for the Ministry is unclear since no specific request has been received, but MESTI staff should be included in general training regarding the petroleum sector value chain. Issues of how to *manage* the environment component is of a more general nature that OfD is not well placed to support.
- EPA has in general terms asked for support to build its petroleum department and upgrade laboratory staff. Norway should be positive as these are difficult areas where good science and sufficient staff size is required to comply with the needs the state has for insight and control. But there needs to be a realistic timetable for when Norwegian support can be phased out. It also seems that much of the skills are of the kind that national institutions can provide, especially on the laboratory side.
- With regards to TCPD, it is unclear how much further technical assistance is actually required as it appears it has largely acquired the spatial planning skills it needs and requests are more for financing additional spatial plans.
- Concerning STEPRI, its funding is not from the OfD, but OfD may wish to keep an eye
 on how the issue of local content can be addressed as this is central to Ghana's longerterm strategy for ensuring larger and sustainable benefits from the petroleum sector.

5.4.3 Revenue component:

- The request for Revenue Management as a new component in the OfD programme should be supported, and with an appropriate budget allocation.
- The *structure* of the component has been discussed by the parties and can be considered ready for approval whereas the actual *programming* remains to be done.
- The *training* programme should be handled by Petrad. It should cover all three components, ensuring consistency and synergies across fields, maximize local contents of the training for maximum relevance, and identify a local partner/ institution that over time should assume an ever greater share of the training.
- Petrad should structure the training in modules that can accommodate a wide range of stakeholders and not just the public administration. This is to ensure a broad labour market approach to capacity development, but also to ensure that the knowledge and skills required for genuine citizen participation and oversight is developed.
- The *partnering* foreseen, with the Norwegian Oil Taxation Office, the IMF and possible other skills centres, needs to be tailored both to the local requests but also in light of support funded by other actors. Ghanaian authorities will be expected to coordinate and manage the various other capacity development programmes being offered.
- Ghana starts from a relatively strong institutional, organisational and human resources base when it comes to the financial sector. An exit strategy for the support during the coming five-year period is realistic and should be an integral part of the programme.

6 Beyond Components: Governance and Local Content

Addressing governance: strengthening the larger systems. While OfD has so far focused on strengthening the state's capacity to protect and develop the public interest in the petroleum sector, the ability to maximise and equitable distribution of benefits and ensure genuine oversight and accountability require that non-state actors and systems also are enabled to play their roles. OfD is paying increasing attention to these dimensions, and in Ghana the conditions for building more robust governance capacities and systems appear good.

6.1 Governance: Public Sector Oversight and Control

Being realistic: planning for the worst. The resource curse in the form of corruption, political distortion and macro-economic imbalances ("Dutch disease") is real. While Ghana has put in place an impressive array of legislation, institutions, policies and practices, the danger remains that once the economic rent from the petroleum sector increases, rent-seekers may find ways of capturing these. Building the state's own capacities to identify, control and contain such rent-seeking attempts is therefore important.

6.1.1 Constitutional Oversight and Control

Constitutional mandates: critical roles and uncertain capacities. The most important actors are those with constitutional mandates to oversee and control the nation's income and wealth. First and foremost among these is Parliament and its Select Committees. Of the 25 committees, four in particular appear relevant when it comes to the petroleum sector: Finance; Public Accounts; Mines and Energy; and Environment, Science and Technology. While Parliamentarians are familiar with the sector issues – among other things through study visits to a number of countries, including Norway – there is a need for more long-term capacity building, which might take several forms: (i) Petrad courses tailored to the needs of politicians with a focus on policies and legislative issues that a country like Ghana should be aware of, (ii) if and when Parliament establishes technical secretariats for the Committees, their technical staff will need training regarding effective and constructive legislation, oversight and real control in the sector. – While there is interest in receiving such support through the OfD, the contents, scope and mechanisms for such a program component have not yet been formulated.

The Ghana Audit Service (GAS): ensuring financial control. GAS has the usual constitutional mandate to audit all public accounts and offices. Based on the PRMA it should audit both the PHF and the capital funds under it, the GSF and GHF. While this mission did not visit the GAS, it is understood it has established an oil and gas audit unit (Ovesen 2013 p. 11). It is clear that the GAS requires at least as much insight and knowledge about petroleum sector finances as the GRA, so it would be logical to include the GAS in those training events where it could benefit both from the training and the interaction with the other public bodies that have some oversight and control responsibilities. It has been suggested by Norway previously that GAS should look to AFROSAI-E for more direct audit support, as well as possibly from Norway's own Office of the Auditor-General (op.cit., p.17), which already is providing technical assistance to a number of African supreme audit institutions. It would in any case seem prudent to pay particular attention to the needs of GAS in light of the likely increasing threats to fiduciary integrity in the petroleum sector in the years to come.

6.1.2 PIAC: Statutory Non-state Oversight

The PIAC: an innovative and powerful body for transparency and accountability. The PIAC was created by the PRMA as an independent but stakeholder-based oversight body for the petroleum sector. Its members are identified by the interest or constituent groups they represent: traditional chiefs and queens (two persons), faith-based bodies (two persons), labour unions, media, CSOs, think-tanks and GHEITI (five person), and professional bodies. It reports to Parliament and the public at large through a publicly available report on how it sees the implementation of the PRMA including the use of petroleum revenues: a semiannual report by mid-September and an annual report by mid-March of each year. While a statutory body, it was established without clear funding, and initially worked under highly constrained circumstances. It has received some funding for its activities from international NGOs and till the end of 2013 relied on Revenue Watch Institute's offices for much of its office support. Due to this resource constraint, it is lagging badly in its publication obligations: the 2012 report was presented on 20 November 2013 rather than on 15 March. The PIAC has, however, raised important issues and ensured that there has been more public debate and awareness around petroleum revenue matters. The PIAC is not without its detractors, some seeing it as potentially encroaching on Parliamentary prerogatives and obligations. On the other hand, the PIAC may be a solution to the eternal question of "who will watch the watchers", since it reports not only on the MoF's actions but also on the political decisions regarding allocations. This is important since politicians in Ghana as elsewhere face the dilemma that political parties usually do not have sufficient funding to provide for the kind of representative politics and active debate that democracies require, and thus engage in diverting funds for political purposes, making the political system itself vulnerable to the revenue "leakages" that Parliament is to control and prevent. It is therefore important that PIAC, as an innovative civil society-based oversight body with a strong legal mandate, has the skills and funding required to carry out its task as required. While there is a danger that external funding can be perceived as interference in internal (and sensitive) matters, if and when a request arises, OfD should consider this in light of PIAC being a critical actor in a complex structure of checks and balances, transparency and accountability.

6.1.3 GHEITI: An International Compact

Ghana Extractive Industries Transparency Initiative (GHEITI): important arena. GHEITI is the national branch of the international EITI compact between governments, extractive companies and civil society promoting transparency and accountability regarding revenue mobilisation. GHEITI is thus not an official body since it is a voluntary tripartite collaboration. But it is largely the government's performance that is being scrutinised and the government that makes it open to such inspection and is "certified" by EITI. In October 2010, Ghana became the second African country to achieve EITI Compliant status. The GHEITI secretariat is fully funded by the MoF, with the national coordinator sitting in the Ministry and is a senior career economist there. In 2012 GHEITI published the first petroleum sector revenue report, covering 2010-2011. GHEITI, like the PIAC, is lagging in the production of its reports, with the 2012 report being the latest available. As in other countries, the body's multi-stakeholder group (MSG) is important for discussion and dialogue among actors that otherwise seldom meet. As the country's extractives sector grows and becomes more complex, the need for upgrading the skills of those who are debating the country's compliance also becomes more important. To the extent possible,

OfD should open up sector trainings also to members of GHEITI's MSG. To some extent, GHEITI and PIAC are complementary bodies for transparency and oversight, as GHEITI focuses on *revenue mobilisation* while PIAC looks more at *allocations/ disbursements*. Having two semi-autonomous bodies tracking the more complete budget cycle for petroleum resources is extremely important, so possible support merits careful consideration.

6.2 Governance: Civil Society

Non-state actors: active and competent. Ghana has an active and diverse civil society. As noted in the presentation of the PIAC, in Ghana this concept covers religious communities, traditional leaders, the labour movement, the business community, professional associations, academics as well as more classic advocacy and membership organisations (NGOs, CSOs). An interesting aspect of the labour market in Ghana is that qualified persons seem able to move between the public sector, civil society and the business community, reflecting a maturity of capacities and opportunities that is unusual in developing countries, and represents an important strength for Ghana to build on.

6.2.1 Civil Society: Diversity and Strength

Oil and Gas Platform: structuring the voice of civil society. In order to build their capacity on oil and gas issues, CSOs created the Ghana Civil Society Platform on Oil and Gas. It comprises about 120 organised groups, focusing on strengthening the ability of civil society to have their voices heard on sector legislation, revenues and environmental protection. In 2011 the platform issued a 'Readiness Report Card' that evaluated ten dimensions of government performance, such as transparency, independent regulation of the sector, licensing and contracting, citizen participation/public oversight, budget openness/public financial management and social and environmental issues. It looked at the Government, the Parliament, Ghana's donor partners, oil and gas companies, and civil society itself. The Platform also coordinates the views the CSO representative provides in the PIAC.

STAR Ghana: coordinating donor funding for transparency and accountability. The Platform receives support from the civil society support facility 'Strengthening Transparency, Accountability and Responsiveness' (STAR). STAR Ghana is a multi-donor pooled funding mechanism aimed at increasing the influence of Ghanaian civil society in the governance of public goods and service delivery, with the ultimate goal of improving the accountability and responsiveness of Ghana's government, traditional authorities and the private sector. Given its strategic importance, the oil and gas sector was selected as one of the priority areas for the programme. It has so far received funding from DFID, Danida, the EU and USAID.

ISODEC: key roles for petroleum sector accountability. The Integrated Social Development Centre (ISODEC) serves as the secretariat to the Oil and Gas Platform, is the Ghanaian branch of Publish What You Pay and the Tax Justice Network Coalition, and represents the CSO community on the GHEITI MSG. Formed in 1987, ISODEC's origins are in grassroots activism but since 2000 has focused more on policy advocacy in order to – among other objectives – promote accountability of the state to its citizens. It plays a key role in bridging the activities and actors required to build national coalitions around research-based proposals, and is a key example of a skills-based CSO.

Oil for Development: supporting the voice and skills of civil society. CSOs believe the OfD program has focused too much on public administration and not sufficiently on the larger challenges of petroleum sector governance. A number of actors would like to see OfD invite more civil society actors to the trainings and skills upgrading activities taking place, thus also facilitating more dialogue between the various interests in the sector. While a number of CSO staff have benefited from OfD trainings, their concern is that if they are to play their role in the public debate and actual ability to contribute to transparency and oversight of petroleum sector development, they need to basically have the same level of knowledge and understanding as both public administration and the private sector. The further argument is a labour market one: if these critical skills are more widely available, this makes the labour market more robust and among other things makes public institutions less vulnerable to poaching of particular skills – the sustainability of the OfD support is strengthened.

6.2.2 Media: Facing Challenges

The fourth estate: strengthening its relevance. The media in Ghana play an important role in bringing issues out to the public, in part through systematically upgrading own knowledge about sector issues. Key actors behind this are Revenue Watch Institute (RWI) and PenPlusBytes (PPB). RWI, based in New York, receives considerable funding - including from Norway – for capacity building activities for civil society organisations in developing countries regarding the extractives sector. PPB, the International Institute for Information Communications Technology (ICT) Journalism, is a Ghana-based NGO but with activities in a number of African countries. They have held a number of workshops for journalists from print media, radio and TV, and have also provided ICT training for members of Parliament, to strengthen their ability to communicate through modern media with their constituencies. RWI and PPB have paid particular attention to the oil and gas sector, with PPB starting up an intensive six-month training course during the second half of 2014 for Ghanaian journalists interested in reporting on this sector. RWI and PPB will be organising their fifth oil, gas and minerals oversight training for journalists from Ghana, Tanzania and Uganda in June, strengthening the regional collaborations that they believe is important for more proactive learning across borders, as many of the principled problems in the sector are similar. With the perceived increased role and influence of commercial actors in the media market, some journalists feel their ability to provide critical and fair reporting is coming under pressure. Opportunities for upgrading skills and insights, building networks across borders and sectoral boundaries, and finding outlets for investigative and dialogue-based reporting is therefore highly valued, and where open support for such work by credible actors such as OfD is also seen as valuable.

6.3 Local Content

Local content: the real value of petroleum resources? Ghana as a society is very aware of the effects petroleum has had on its big next-door neighbour, and uses this as an example of what it wants to avoid. A particular concern is that Ghana should not export its hydrocarbon riches (something Norway recommended when it came to Ghana's natural gas), but use this to build a modern industrial and service sector. The focus on *local content* has thus led to the enactment of policies to ensure that the country will capture this expected value-added.

Local content: Petroleum Commission Act and L.I. 2204. The Petroleum Commission Act (Act 821) of 2011 defines one of the Commission's functions to be "promote local content and local participation in petroleum activities..." (Act 821 Para 3 (f)). This was subsequently laid out in Legislative Instrument (L.I.) 2204, "Petroleum (Local Content and Local Participation) Regulations, 2013", passed by Parliament in November 2013. Its purpose is to "promote the maximisation of value-addition and job creation through the use of local expertise, goods and services, businesses and financing in the petroleum industry value chain and their retention in the country ... develop local capacities in the petroleum industry value chain through education, skills transfer and expertise development, transfer of technology and know-how and active research and development programmes" (LI 2204, para 1 (a)(b)).

Strong ambitions: short timetable. Under LI 2204, the PC is to receive and approve the various plans that are called for under the bill (employment, succession plans, research and development plans, etc.), and monitor and ensure the implementation of the provisions, such as the preference in licensing, that Ghanaian companies fulfil the legal requirements for receiving the preferential treatments, etc. LI 2204 includes very ambitious timetables for increasing the actual local content of the various components in the regulation, putting international and local business under considerable pressure to comply with the regulation.

Addressing local content: challenging the foreign companies. The starting point for the local content policy is the fact that it is the foreign investors that have the skills, technology and financing for developing the petroleum resources. Ghana wants over time to have a larger role in the core activities. More important, though, is local content in terms of employment and local supply industries and services, where again it is the foreign investors who are in the driver's seat since they are the contracting party and know what it takes to fulfil the industry's quality and HSE obligations. Given the life-time of a field, it would normally be in the foreign investor's interest to buy locally and thus help local industry become competitive. Fomenting such direct linkages may provide a successful avenue for companies that are close to being compliant with industry standards, but most local companies seem to be some ways away from attaining this level.

Early research: compliance will be difficult. STEPRI, in collaboration with SINTEF (see section 5.2) carried out a first phase of a Norad-funded project "Nkosoo 2015: Nurturing a Sustainable Oil and Gas Industry in Ghana". One of the studies points to an incipient industry that lacks skills and management, realistic understanding of what it takes to become a competitive supplier in a market that abides by international standards, which has problems accessing financing, still is searching for how to approach the industry, and has not really developed good business plans that will allow the companies to grow expertise and experience that will allow them to secure larger contracts over time (SINTEF-STEPRI 2011). A proposed second phase of the project is to support identified companies along the dimensions they themselves have found to be their major weaknesses. Whether the STEPRI-SINTEF approach is the most efficient and effective way of addressing the skills-experience-financing gap is unclear, however. While funding would not come from OfD but from other Norwegian sources, the proposal requires a critical review.

Deepening the labour market: producing skills locally. A key area pointed to by many if local industry is to succeed, is the development of a much broader and deeper local labour market for relevant skills. A strategy for attaining this does not appear to be clear, since the skills required cover a range of technical, economic, management fields that are provided by

different institutions: polytechnics, universities, vocational and technical schools, and centres for practical skills upgrading. This task is also not core for OfD, so if Norway is to become involved it should be through Norad's Department for Education and Research.

Petrad courses: tailored answers. The one area where OfD should contribute is through Petrad, where Petrad can facilitate stronger linkages between IOCs and local businesses through directed training on issues like the standards and requirements IOCs have of suppliers and supplies. Locally-based IOCs and staff from national business schools/ universities should make up much of this training staff. In order to develop such training, a careful needs assessment is required to identify relevant topics and approaches.

6.4 Regional Collaboration

Supporting neighbours: Ghana as a regional capacity hub? Neighbouring states like Liberia and Sierra Leone are also emerging as petro-economies, and while OfD may provide some direct support to these countries, it is also possible that some of the learning can be more effective if done as peer-learning in the region. Ghana has already hosted visits from several countries in the region, but is also engaged in experience exchanges with countries such as Uganda and Tanzania. Given the relative strength of its education and skills market, Ghana can become an important hub for learning and training that can further extend the benefits of OfD support to the country. While Anglophone countries can benefit from the fact that they and Ghana often have quite similar governance structures and traditions, non-public actors can take advantage of the quite sophisticated civil society actors there, where bodies like RWI have a regional office in Ghana while ISODEC and PPB play important roles in regional knowledge networks and experience exchanges.

6.5 Findings and Conclusions

6.5.1 Public Sector Oversight and Control:

- Strengthening Parliament's capacities for petroleum sector policy development, oversight and control is critical, and a programme for continuous updating of such skills and knowledge is key. If requested, OfD might find a Ghanaian knowledge centre (such as a university) that could act as a continuous partner for such efforts, both for Parliamentarians and possible technical staff for the Select Committees³.
- The Ghana Audit Service should be included in the proposed Revenue component as a training partner along with GRA and MOF. OfD should see to what extent Norway's Auditor-General's office can provide support in addition to whatever assistance AFROSAI-E is able to provide.

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³ Norway provided support to the Parliament in Malawi regarding upgrading of skills for policy development. During the parliamentary period where the project was running, it was seen that the quality and thoroughness of analyses and debates improved considerably. After the following election, however, the quality of work fell again since so many Parliamentarians were new, and no national centre for continuous training had been established (see Scanteam 2011, http://www.norad.no/no/evaluering/publikasjoner/publikasjon?key=284256 especially the Malawi country case annex pp. 16-17).

- PIAC and GHEITI members/staff should also be invited to relevant training activities, where one consideration is the net-working effect joint learning activities has.
- To the extent key bodies Parliamentary Select Committees, PIAC, GHEITI require
 direct financial assistance in order to upgrade their performance, Norway should
 consider providing this dependent on (i) a clear commitment by Ghana to provide
 sufficient own funding within the programme period (for example through increased
 ABFA ear-markings), (ii) the funds can be channelled through a neutral mechanism, to
 avoid appearance of interference or attempts to curry favour by Norway.

6.5.2 Civil Society:

- The civil society structures for engagement in the extractives sectors appear representative, knowledge-based and strongly engaged, including in GHEITI and PIAC. As with public oversight bodies, however, there is a need for continuous skills upgrading and resources to ensure effective monitoring and knowledge production. Norway can support by inviting civil society actors to relevant trainings, and provide funding for relevant activities, again through independent funding mechanisms such as STAR Ghana. Support should focus on strengthening core organisational capacities.
- Media are in a particularly vulnerable situation since they are increasingly subject to market forces, where the mining and petroleum industries can mobilise considerable resources for disseminating their views on issues. Whether Norway/OfD has any particular role to play in the context of Ghana is not obvious, except (i) encouraging funding mechanisms like STAR Ghana to ensure sufficient funding for continuous upgrading of journalists' skills, (ii) provide strong support for the principle of a free and fair press when it comes to reporting on the extractives sector.

6.5.3 Local Content:

- While local contents development is a critical priority for Ghana, OfD has little to contribute except possibly having Petrad put together relevant courses for local industry. This must be based on a clear needs assessment, and that Petrad has the resources to implement such training in collaboration with a local skills centre.
- Any other Norwegian support to local contents development should be handled outside the OfD program, but should be coordinated with OfD where useful.

6.5.4 Regional Collaboration:

 Norway should look into how constrained OfD resources can generate wider impacts through supporting Ghana's role as a regional knowledge and experience hub, for both public administration and non-state actors.

7 Looking Ahead

Continued support is required but with a sunset clause: design the exit strategy. While Ghana has made impressive strides in terms of its institutional structures, policies and procedures, some key organisations still require strengthening, and Ghana itself needs to build more capacity to produce some of these capacities! The questions Ghanaians face in the sector are complex, and being able to ascertain and defend the public's interest in areas where the stakes can be extremely high requires high levels of skills, integrity and control and continuous upgrading of knowledge in a field that is in rapid evolution. Ghana requires essentially the same level of skills as Norway since they are working with the same companies in the same complex sector. Training can therefore not stop at "intermediate levels" but should proceed to a fairly sophisticated level. At the same time, Ghanaian tertiary institutions should be expected to develop their own knowledge base, including PhD programs generating own insights through directed research. OfD should therefore have as its starting point that Ghana is a "mid-level" country: it has core capacities in its educational institutions that are quite strong, and a stable political situation that allows for systematic capacity building with a high level of probability of sustainability. Ghana should therefore assume ever greater responsibility for own capacity building, and thus an exit strategy for many of the OfD fields of support should be designed so that by the end of the five-year period 2015-2020 active Norwegian support will have been brought down considerably and even terminated in some fields.

Continued vulnerabilities: focus on governance. One field where Ghana will remain vulnerable is overall governance. The asymmetries of resources between IOCs and the public sector, on the one hand, and the state and non-state actors on the other, reveal the two key dimensions of the governance challenge. The first one is the one that OfD has so far focused most on, ensuring that "total government take" is reasonable given the relative risks and rights that the two sets of actors have when sharing the economic rent. The second concern is the greater one, which addresses how the public sector share of resources should be allocated and spent. This is where questions of corruption, inappropriate allocations and "Dutch disease" occur. This is more complex, not least of all because criteria for deciding allocations and expenditures are largely subjective and decided by political mechanisms and actors. Ensuring that legitimate claims by relevant societal stakeholders are properly addressed will remain a continuing governance challenge.

7.1 Programme Structure

OfD support: shifting towards a "second generating" OfD programme? The OfD programme in Ghana is likely to change along several dimensions in a second programme period: (i) within the two current Resource and Environment components, overall funding may decrease, especially over time, and the relative allocations between actors will change; (ii) a third Revenue component will probably be added, and perhaps become the larger one in terms of funding; (iii) the Revenue component is likely to be somewhat more complex as it should probably accommodate a wider range of actors, including from civil society, in some of its training activities; (iv) a larger governance concern addressing not just the "total government take" dimension, which justifies a public administration focus, but also the larger distributional benefits concerns that looks at the public sector-civil society debate, will

presumably require separate attention. These different dimensions imply a restructuring of the OfD engagement in Ghana for a possible 2015-2020 programme period.

7.1.1 Thematic Components

Thematic components: different dynamics. The three thematic components that are likely to make up a 2015-2020 programme will exhibit different dynamics, as explained in chapters 5 and 6: while Revenue will be a new and growing component, especially in the first years, Environment may go through a contracting dynamic while Resource is likely to see a shifting of resources to the PC and NDR but which may taper off towards the end of the period. Given this, it makes sense to continue with separate agreements for each component. There is little "leakage" in terms of actor involvement across component boundaries so it makes sense to keep agreements as streamlined and slim as possible. Furthermore, the internal dynamics in each component will move at different speeds and be largely independent of each other, so each component should be fairly free to adjust activity levels to capacities and needs. This will assure clear accountability for financial and results reporting; is in line with the general governance structures in both countries; and gives each component the flexibility to deliver as quickly as it can within own resource constraints.

7.1.2 Governance Component

Strengthening governance: addressing benefits distribution. As discussed above, Ghana has a number of actors and capacities in place that mean the country is able to address a more sophisticated governance agenda. The kind of support that is required still may include Norwegian technical assistance in the form of training on sector issues, public finance management etc, but should most likely increasingly rely on own- and peer-learning in the region, both for political and civil society actors. These interventions require a stronger context-knowledge than component managers in Norway will have, and are therefore better handled from the embassy or a programme manager based in Accra.

7.2 Programme Management

A changing programme: flexible structure. The implicit structure outlined above is of a second-phase OfD programme essentially consisting of four components: three thematic components, managed by the OfD Secretariat as now, and a fourth cross-cutting Governance component that is better handled from the field. All three thematic components will see either the entire programme or at least parts come to an end by the expiry of the agreement period. An important part of the exit strategy will be handing over key capacity building activities to a Ghanaian knowledge centre.

Thematic component: keep agreement structures simple. The current structure of (i) overarching agreement between Ghana and Norway setting the parameters for the OfD programme, (ii) political agreements between relevant line ministries for each component programme, (iii) technical implementation arrangements between the collaborating bodies, is worth keeping for the three thematic components, for the reasons listed previously. While the agreement structure is somewhat complicated, it means that implementation roles, reporting and accountability is simplified since the lines between actors become direct and transparent.

Governance: Embassy based framework component. The governance dimensions that cannot be covered within the three thematic components should be handled through a separate component programme directly managed by the Embassy. This will provide flexibility in terms of partners to work with and modalities for support and funding. It will also provide the Embassy flexibility to adjust to changing circumstances, ability to work with new partners as options arise, but it will also mean that the Embassy will be held to account for choices made and results delivered.

Petrad: the spider in the web. The one actor that is likely to be involved in all four components is Petrad, where a particular responsibility should be to identify and support local partners that can increasingly take on training and other capacity building responsibilities. What has made Petrad function well under the first programme period is that its activities have been driven by the needs of the various components, and not simply a series of independent training activities. As the programme becomes more complex with two additional components, a wider range of actors included in the training, and an increasing focus on transferring capacity building to local partners, the agreement/s with Petrad will need to reflect this complexity. While training will have to remain flexible and training programs therefore can be adjusted on an annual basis, the core tasks Petrad is being asked to carry out require a long-term perspective and clarity on objectives.

Programme management: handling complexity and change. The new OfD programme will benefit from a stronger hands-on presence on the ground due to its increased complexity and need for local adjustments:

- The Resource and Environment components will probably be scaled down over time but with hand-over of some roles to local knowledge centres;
- The Revenue component is likely to include a wider range of actors on the Ghanaian and technical assistance sides (AFROSAI-E, Norway's Auditor-General's office...);
- Petrad's possibly more wide-spread involvement would be helped by somebody on the ground who could follow up and work with local knowledge partners;
- A more complicated and sensitive governance component, covering both political and non-state actors, would benefit from good local insights and contacts;
- An increased regional dimension with possible peer-learning and intensified experience exchanges will be better handled by a local coordinator;
- If the World Bank programme is not extended, OfD will in any case need to take on a stronger coordinating and management role in Ghana, and preparing for such a scenario is in any case useful to ensure continuity and predictability in processes;
- The Embassy itself is not likely to receive more staff and thus will have limited own capacities for handling things other than the political dimensions of the programme. A local programme office, perhaps situated in a coordinating ministry (MoF? MoEP?) could be of great help also to component coordinators in Norway.

An OfD programme coordinator should be a national with knowledge of the petroleum sector but primarily be a good administrator, understand capacity development well, have the ability to coordinate with a range of Norwegian and Ghanaian actors, and be able to work well with government, civil society and business community actors.

7.3 Summing Up and Recommendations

7.3.1 A second phase of OfD support should be provided:

- OfD has provided targeted and demand-driven assistance to key Ghanaian actors that
 are central to the country's ability to manage the petroleum sector and its revenues.
 This collaboration should continue, building on the strong foundations and levels of
 trust established.
- A second phase programme 2015-2020 should be built around the three standard components of an OfD programme Resource, Environment and Revenue but with an exit strategy designed for each one of them.

7.3.2 A "Second generation" governance concept should be a strategic part:

- A fourth Governance component, to be managed by the Embassy, should be included, with sufficient resources to provide flexible but comprehensive support to political and non-state actors important for strengthening overall accountability regarding petroleum sector benefits.
- A regional role for Ghana within a larger OfD perspective should be considered both
 as a means of increasing the effectiveness of scarce Norwegian resources, but also as a
 means for building stronger local capacities and effective peer learning.
- Training that accommodates a wider range of actors and an increasing role for Ghanaian knowledge centres should become a cross-cutting dimension of the support.

7.3.3 Programme management should move towards the field, be flexible:

 To accommodate the increasing complexity of the programme, a national programme coordinator might strengthen the transfer of roles to Ghanaian partners, ensure necessary coordination across components, build bridges across the various actor groups involved in the sector, and assist both Norwegian and Ghanaian in the implementation of their tasks.

Annex A: Terms of Reference

Review of the Norwegian Support to the Programmes «Strengthening resource management in the oil and gas sector in Ghana» (GHA-09/018) and «Strengthening environmental management in the oil and gas sector in Ghana» (GHA-10/0010) for the period 2010 – 2013(14)

1. Background

Ghana and Norway signed a Memorandum of Understanding in February 2008 regarding cooperation in petroleum management. Preliminary activities took place until December 2010, when two 5-year Programme Agreements were signed, on petroleum-related resource management and environmental management, respectively. At the same time, two subsidiary Institutional Cooperation Agreements were signed, one for each of the two Programme Agreements. The budgets for the two Programme Agreements were NOK 50 million and NOK 40 million, respectively.

The Agreements are managed by the Norwegian Embassy in Accra on the Norwegian side and the Ministry of Energy and Petroleum (MOEP) and the Ministry of Environment, Science, Technology and Innovation (MESTI), respectively, on the Ghanaian side. The role of the Norad Oil for Development secretariat is to support the Embassy. At the technical level, the cooperation on resource management is managed by the MOEP and the Norwegian Petroleum Directorate, and the cooperation on environmental management is managed by MESTI and the Norwegian Environment Agency.

According to the Programme Agreements, a mid-term review and an end review should be performed for both agreements. The mid-term review was agreed not to be performed, since a global evaluation (by Scanteam) of the Oil for Development programme, with much focus on Ghana, was performed at the time the mid-term review was foreseen to take place. The present review therefore is a merger of the mid-term and the end reviews. It is also a merger of the reviews for the two Programme Agreements. Furthermore, the review is planned to be backward-looking as well as forward-looking. The reason for the latter is that Norway has received formal requests from the Government of Ghana for a new phase of the cooperation once the existing two Programme Agreements expire in December 2014.

The present review is a joint review between Ghana and Norway, which means that these Terms of Reference have been approved by both. It has been decided, however, that Norway, through the Embassy in Accra, will be the contract partner for the selected Consultant.

2. Purpose and Objectives

As mentioned above, this review will be both backward- and forward-looking. The main purposes of the review are to prepare the basis for a decision by Norway on whether to accept the mentioned formal requests for extension of the cooperation and, if so, finalize the necessary draft Programme Document(s) to that end.

On this background, the objectives are threefold:

- A. Identify results achieved and experiences made since the signing of the Programme Agreements in 2010.
- B. Outline content of possible new phase(s); objectives, broad baselines, agreement structure, programme administration procedures, risk management etc.

C. Optional: Finalize Programme Document

3. Scope of Work/Priority Issues

With a basis in the Objectives A-C above, the review should seek to address the following issues/questions:

A. Backward-looking, for both Programme Agreements:

- a) Assess results in terms of outputs achieved and to what extent the purpose as defined in the Programme Document is being achieved, and assess the likelihood of this being achieved by the end of the Programme Agreement period. Quantification to the extent possible.
- b) Assess the sustainability of the results achieved, in particular with regard to sustainable capacity- and institution building in the target institutions.
- c) Assess to what extent the Norwegian experience and expertise have been relevant to meet the different needs of Ghana in order to build national competence and capacity within the petroleum sector.
- d) Assess the efficiency of the Programme, in particular an assessment of results achieved compared to costs incurred and man-hours invested. Quantification to the extent possible.
- e) Review the management arrangements of the Programme, hereunder:
 - The effectiveness of the current organisational structure of the Programme, in particular with regard to the division of roles and responsibilities as perceived and carried out by all partners (both at Programme Agreement level as well as at Institutional Cooperation Agreement level).
 - How well the Programme can be said to function with regard to information sharing, dialogue and communication between the different actors.
 - How well the Programme fits with the organisational structures of the Ghanaian partner institutions with regard to the efficient implementation, reporting and follow-up of activities.
 - The financial overview and reporting system is it sufficient to meet Norway's rules and regulations and compatible with Ghana's financial and reporting systems?

B. Forward-looking:

- a) Within the existing components (resource and environmental management, respectively) identify existing or new areas/activities which could benefit from more interaction/cooperation and areas which may be discontinued.
- b) In addition, and in view of the recommended cooperation on revenue management (ref. report by Vidar Ovesen, see Annex 2), assess how inter-linkages between this component and the two mentioned in item a) above can be established. This goes for content as well as agreement structure.
- c) Furthermore, assess whether, and if so: how, the cooperation could be expanded to include other parts within petroleum management, such as:

- Accountability and transparency, i.e. an enabling environment wherein civil society, media and the Parliament can hold the authorities responsible (OfD's "Objective 3"), and
- Local content development.

For items a) through c): For all areas identified, describe what the needs are, what is being implemented already by Ghana and other development partners, and how Norway possibly can contribute.

- d) Suggest more effective ways in which management arrangements can be designed, hereunder:
 - Alternative agreement structure, e.g. one joint agreement for all areas
 - Desirable adjustments in the financial overview and reporting system
 - Alternative disbursement procedures
 - Use of a resident coordinator, and the possible mandate for such a position

The Oil for Development guidelines as well as experiences from other OfD countries should also be drawn on.

- f) Assess the possible consequences/risks of a potential non-continuation of the programme after the end of the present Programme Agreement, hereunder:
- Political relations between Norway and Ghana;
- Financial implications for Ghana;
- Sector specific implications; resource and environment;
- The successful development of the Ghanaian institutions involved;
- Progress in terms of good governance, transparency, accountability, anti-corruption.

C. Optional: Finalize draft Programme Document(s)

In the event that Norway makes a decision in principle to support Ghana's requests for a new phase of the existing agreements, the Consultant would be tasked with finalizing the necessary draft Programme Document(s).

4. Implementation of the Review

In component A (the backward-looking part), the Consultant should use the OECD-DAC criteria for evaluation of development programmes, i.e. effectiveness, relevance, efficiency and impact of the programme in question.

In component C, the drafting of the Programme Document, particularly close cooperation with Ghana will be needed, since Ghanaian authorities will be responsible for developing such a document. Furthermore, the contents of the document should satisfy the requirements of Norwegian development cooperation.

The review shall be carried out through studies of available documentation, both general documents and project specific documents as listed in Annex 2. In addition, the Consultant shall at his/her own discretion and judgement, obtain any additional information necessary to deliver on the requirement as specified in this ToR.

Furthermore, interviews shall be conducted with all relevant actors at the Norwegian and Ghanaian sides who have been involved in the implementation of the programmes, and all other relevant stakeholders. See Annex 1 for a list of relevant institutions.

A visit to Ghana for approximately 2 weeks should form part of the review after all relevant documents have been studied.

The review shall be carried out in close cooperation with relevant authorities in Ghana and Norway. The Norwegian Embassy will be the main point of contact.

5. Qualifications of the Consultant

A team of two persons, the Consultant shall have the following qualifications:

- Solid knowledge of the Oil for Development (OfD) programme in general;
- Experience from design and management of Norwegian development cooperation programmes;
- Extensive experience in appraisal, implementation and review of institutional development programmes in Africa;
- Experience from the oil and gas sector, preferably petroleum administration and management;
- Extensive understanding of Norwegian foreign policy and development co-operation policy;
- Experience from working in developing countries/Ghana;
- Be fluent in the Norwegian and English languages, both orally and in writing.

The Consultant shall be independent of the activities to be reviewed and shall have no stake in the outcome of the review.

6. Reporting Requirement and Time Frame

A draft final report, covering components/objectives A and B above, with a summary of main findings, conclusions and recommendations shall be submitted to the Norwegian Embassy in Accra no later than 8 weeks after the commencement of the review (contract signed). The Embassy will forward the same to the relevant Ghanaian institutions.

Any comments to the draft final report shall be forwarded to the Consultant within two weeks after submission of the draft.

The final report shall be submitted 2 weeks after the receipt of above mentioned comments. The final report shall be written in English and be submitted in 3 hardcopies as well as a soft copy. The report must include an introductory summary with main conclusions and recommendations. The final report shall preferably not exceed 30 pages plus an executive summary and attachments.

The Consultant will provide a debrief meeting with relevant parties (video conference).

In the event that component C will materialise, a draft Programme Document should be submitted within 6 weeks of the option being declared by the Embassy.

The criteria for selection of the successful Consultant will be price, qualifications and approach.

Annex B: Persons Met

Ghana

Parliament

Dr. Kwabena Donkor, Chairman, Parliamentary Select Committee on Mines and Energy *Public Administration*

Ministry of Finance (MoF)

Mr. Kwabena Boadu Oklu-Afari, Director, Real Sector Division

Dr. Joseph Kwadwo Asenso, Team Leader, Energy Oil and Gas unit, Real Sector Division

Ministry of Energy and Petroleum (MoEP)

Prof. Thomas Akabzaa, Chief Director

Mr. Alexander Kyei, Programme Coordinator, Petroleum Sector Capacity Building Programme

Ministry of Environment, Science, Technology and Innovation (MESTI)

Mr. Fredu Agyeman, Director, Environment

Mr. Kwamena Essilfie Quaison, Deputy Director, Environment

Petroleum Commission

Mr. Kwaku Boateng, Director, Special Services

Dr. Paul Frempong, Manager

Mr. Kwasi Agyeman Many Senya, Associate CIPD, Training Officer

Ghana Revenue Authority

Mr. Delali W. K. Klubi, Head, Petroleum Unit, Large Taxpayer Office, Domestic Tax Division

Mr. Ben Graham, Acting Assistant Commissioner, Petroleum Unit, Customs Division

Environmental Protection Agency

Mr. Kojo Abenor-Efunam, Director, Oil and Gas Section

Town and Country Planning Department

Mr. Mohammed Alhassan, Senior Town Planning Officer

Ms. Fred Kingful Abraham Cudjoe, Senior Town Planning Officer

Ms. Celestina Deku, Assistant Town Planning Officer

Ms. Judith Dery, Assistant Town Planning Officer

Mr. Prosper Kwame Detornu, Assistant Town Planning Officer

Ghana National Petroleum Corporation

Mr. Thomas Manu, Director, Exploration and Production

Mr. Adiwa Wiafe, Legal counsel

- Ms. Naa Bortei-Doku, Director, Human Resources
- Mr. Ferdinand K. Aniwa, Manager, Information Systems and Data Management
- Mr. Edward Appiah-Brafoh, Chief Human Resources Officer
- Mr. Eben Apesegah, Lead Geologist
- Mr. Gabriel Q. A. Osatey, Chief Geophysicist
- Mr. Anthony Anane Assiamah, Chief Geophysicist
- Mr. Lawrence Sam, Internal Audit
- Mr. Sam Addo-Nortey, Internal Audit
- Mr. Kwesi K. Eyiah, Chief Accountant
- Ms. Peggie Laihbadee-Darkwa, Facilities Manager

Science and Technology Policy Research Institute (STEPRI)

Dr. Godfred K. Frempong, Deputy Director and Head, Industry and Services Division

Civil Society Organisations

Ghana Extractive Industries Transparency Initiative (GHEITI)

Mr. Franklin Ferdinand Ashiadey, Coordinator (Principal Economist, MoF)

Trades Union Congress

Dr. Yaw Baah, Deputy Secretary General

Revenue Watch Institute

- Mr. Emmanuel Kuyole, Africa Regional Coordinator
- Ms. Emma Tarrant Tayou, Africa Regional Associate

Integrated Social Development Centre (ISODEC)

Dr. Steve Manteaw, Campaign Coordinator

Donor Officials

Norwegian Embassy

Ms. Harriet Solheim, Counsellor (Oil for Development programme responsible)

World Bank

Mr. David Santley, Programme Manager, Ghana programme (by E-mail)

Norway

Norad

- Mr. Arne Olsen, Senior Adviser, Oil for Development Secretariat
- Mr. Svein Erik Heglund, Senior Adviser, Oil for Development Secretariat

Annex C: Documents Consulted

Government of Ghana

Ministry of Finance (2014a), "2013 Reconciliation Report on the Petroleum Holding Fund". Report submitted to Parliament by Hon Seth Terkper, Minister for Finance. Accra, April.

Ministry of Finance (2014b), "Implementation of Technical Cooperation with the Norwegian Government on Petroleum Revenue Management". Accra, 11 March.

Ministry of Finance (2013), "Proposal for Technical Cooperation with the Norwegian Government on Petroleum Revenue Management". Accra, undated.

Ministry of Energy and Petroleum (2013), "Request for the Extension of Time for the Cooperation Agreement between the Governments of Norway and Ghana regarding the Strengthening of Resource Management of the Oil and Gas Sector in Ghana". Accra, 23 August.

Strengthening Resource Management in the oil and Gas Sector (GHA-09/018)

Programme Document, September 2010

Appropriation Document, November 2010

Institutional Cooperation Agreement, December 2010

Programme Agreement, signed 10th December 2010

Report for Annual Meeting, 2011

Report for Annual Meeting, 2012

Report for Annual Meeting, 2013

Report for Annual Meeting, 2014

Strengthening Environmental Management in the oil and Gas Sector (GHA-10/0010)

Programme Document, August 2010

Appropriation Document, November 2010

Institutional Cooperation Agreement, December 2010

Programme Agreement, signed 10th December 2010

Report for Annual Meeting, 2011

Report for Annual Meeting, 2012

Report for Annual Meeting, 2013

Report for Annual Meeting, 2014

Both agreements:

Minutes from Annual Meeting, 2011

Minutes from Annual Meeting, 2012

Minutes from Annual Meeting, 2013

Minutes from Annual Meeting, 2014

Other documents:

- Adam, Mohammed Amin (2012?), "Slippery Steps in Oil Revenue Management: The Case of Ghana's 2011 Supplementary Budget". Accra, undated.
- Adam, Mohammed Amin (2011), "The Dutch Disease Reality of Myth? The Experience of Ghana's New Oil Economy so far". Presentation, Institute of Chartered Economists of Ghana. Accra, December.
- Amoako-Tuffour, Joe (2011), "Public Participation in the Making of Ghana's Petroleum Revenue Management Law". Accra, October draft.
- Calder, Jack and Abdallah Ali-Nakeya (2010), "Strengthening Capacity in Ghana's Petroleum Tax Administration". Report prepared for the Ministry of Finance and Economic Planning. Accra, February.
- Civil Society Platform on Oil and Gas (2013a), "Managing our Oil and Gas Revenues: How Well are we Doing?". Highlights of PIAC's 2011 Annual and 2012 Semi-annual Reports. Accra, undated
- Civil Society Platform on Oil and Gas (2012), "Potential Implementation Challenges of Ghana's Petroleum Legislation". An analysis and review of the Petroleum Revenue Management Act 815 ad Petroleum Commission Act 821, Ghana's Oil Boom: A Readiness Report Card". Accra, April.
- Civil Society Platform on Oil and Gas (2011), "Ghana's Oil Boom: A Readiness Report Card". Accra, April.
- DFID (2014), "Western Region Coastal Foundation, Ghana: Business Case". Accra, undated
- Gary, Ian (2010), "Ghana's Big Test: Transparency, Good Governance and the Legal/Regulatory Framework for Oil and Gas". Oxfam America, presentation, Accra, March.
- Ovesen, Vidar (2013), "Fact-finding mission to Accra, Ghana". Oslo, September.
- Ovesen, Vidar (2011), "Petroleum Revenue Management in Ghana: Implementation of the Petroleum Revenue Management Act". Oslo, May.
- PIAC (2013), "Report on Management of Petroleum Revenues for Year 2012". Accra, November.
- PIAC (2012a), "Report on Petroleum Revenue Management for 2011". Accra, May.
- PIAC (2012b), "Report on Management of Petroleum Revenues for the Period 1 January 2012 to 30 June 2012". Accra, September.
- SINTEF (2013), "Concept Memo: Arena for Industrial Research (AFIR)". Hynne, Damman and Hatling; Trondheim, 19 November.

- SINTEF-STEPRI (2011), "Developing Local Content: Knowledge, Attitudes and Practices among Ghanaian Supply Companies". Gordon Akon-Yamga; Sigrid Damman; Kamil Suley Mohammed. Council for Scientific and Industrial Research, Accra.
- SINTEF-STEPRI (2010), "Possibilities and Limitations: Views on the Institutional Framework for Ghana's Oil and Gas Industry". Kwadwo Osei-Tutu; Kofi Baku; Nelson Obirih-Opareh; George Owusu Essegbey; Bonsu Sarpong-Anane Afua; Gordon Akon-Yamga; Roland Asare; Godfred Kwasi Frempong; Eirik Borgen; Sigrid Damman; Haakon Hynne; Kamil Suley Mohammed. Council for Scientific and Industrial Research, Accra.

Other:

- MoU Ghana-Norway, February 2008
- Evaluation, "Facing the Resource Curse: Norway's Oil for Development Program",
 23 January 2013
- "Fact-finding mission to Accra, Ghana", Vidar Ovesen, September 2013
- Norad document, «OfU Veileder», OfD secretariat, December 2013
- Norad document, "Arbeidsplan for OfU-sekretariatet 2014»

Annex D: Annual Results – Resource Programme

Results area	Programmed 2010	Delivered 2011	Delivered 2012	Delivered 2013	Planned 2014
1. Policy, legal and institutional functions and framework	A review of relevant policies, laws, subsidiary legislations and corresponding institutional functions and framework	 Review the first draft of the E&P Bill. PC Act passed Parliament. 	Ghanaian team submitted draft subsidiary legislation on Local Content and Participation to Parliament (to be presented in 2013).	Draft regulations on Fiscal Metering, Data Management, HSE, Drilling and Reservoir Management completed, awaiting review and comments	E&P Bill to pass Parliament. Draft regulations on General regulation and Model Petroleum Agreement, Advise and train MoEP, Petroleum Commission
2. Data Management, National Data Bank Repository (NDR)	Secure and implement storage and administration of petroleum data. Output in collaboration with the World Bank. All data available on internet.	 Continuation of Seismic Culture Data Loading Start GIS interfacing with Reference Database to generate prototypes of GIS. 	 GNPC continues to expand, modernize existing Data Center for operational needs. First phase procurement of legacy hardware completed. 	 Reference Data Base (RDB), ca 90% of meta data quality controlled, now ready to be put into production. Training of staff in use of relevant software. 	Finalize the two Data Centres at GNPC and PC
3. Subsurface and development issues.	Strategy, increased recovery, production of additional resources, well optimization, gas injection strategy, technical flexibility and fiscal metering systems.	 Assistance to GNPC and MOE to build their capacity in resource redetermination, work processes, international practice. Jubilee used as case study 	Outputs deferred till Petroleum Commission has sufficient staff	Assistance, competence building in fiscal metering and HSE/Drilling related issues done as part of the development of the technical regulations.	 Advise, assist in appraisal drilling programmes Reservoir studies, drainage strategies, POD, area synergies and third party access, etc. Fiscal metering – Enhance in-house capabilities.
5. Gas export project	Review pipeline system design, project management, execution, contract strategies, gas pricing, EIA, HSE systems and Safety Case. Proposals for actions and gap fillings	The Jubilee Gas project reviewed, report sent to GNPC	Gas related issues, roles, responsibilities of GNGC discussed with relevant stakeholders.	Fact finding mission, team submitted draft report for comments.	Advise and assist on request

Results area	Programmed 2010	Delivered 2011	Delivered 2012	Delivered 2013	Planned 2014
6. HSE regulations and management systems	Review of relevant HSE regulations. Roles and responsibility of the new regulator. Output will be recommendations, training, Capacity building.	 Petrad seminar included HSE. Training to be intensified when Petroleum Commission is ready. 	Draft regulations under the Exploration and Production Bill strengthened with inputs from Norwegian Petroleum Safety Authority	Assistance and competence building in fiscal metering and HSE/Drilling related issues done as an integrated part of the development of the technical regulations.	 Advise, assist in development of relevant regulations (HSE, drilling, etc) Planning and execution of audits, inspection Building HSE capacity and competence within PC and other organizations
7. Human resource development	Support capacity building at all levels in the country's technical, vocational and tertiary institutions;	 Continue to build understanding and capacity in the various petroleum management areas. 3 sub-outputs, 5 workshops completed 	Petrad training programmes	36 new staff trained in value chain of petroleum development, focus on public administration capacities.	 PC organization structure, systems, procedures and work processes of a regulator – transfer of experience to PC Petrad training, including the 8-week course.

Annex E: Annual Results – Environment Programme

Results area	Programmed 2010	Delivered 2011	Delivered 2012	Delivered 2013	Planned 2014
1. Policy, legal and institutional framework	Policies and laws reviewed, proposals for updating, harmonization to address oil and gas related activities, including national legislation of relevant international protocols have been developed and presented. Capacity building plans for staff developed and implemented	 Groundwork strategy development, establishment of EPA petroleum department Draft of Environmental Assessment and management of offshore oil and gas development guidelines finalised. Website for oil and gas activities being developed. 	EPA recruited 18 staff to Petroleum Department.	 EPA laboratory partially used for certain analysis, full use only when installation of equipment completed. Ca.60 officers including senior management in EPA trained/ sensitized in policy, management for oil and gas development, what this entails 	Three EPA staff trained in Petroleum Policy and Resource Management under PETRAD 8- Weeks Course Programme
2. Environment data, monitoring and information system	Essential env'l offshore / onshore baseline parameters established A national env'l monitoring system with a funding mechanism for closing data gaps developed, operationalized Coordinating entity for national Env'l Monitoring Information system, ICT infrastructure and data management system upgraded, operationalized for land and sea areas	Marine environmental survey of bottom sediments completed.	 Monitoring survey of entire coastline and offshore environment completed. Development of a Data Management System underway. Development of data policy for the Agency, draft data policy of the Agency revised, to be finalised and approved in 2013. 	Workshop with oil companies to share baseline survey result and discuss future monitoring Development of Data structure and database for environmental statistics 10 selected EPA staff Trained in GIS system operation	 EPA reconnects its stakeholder institutions in the Environmental Information Network that would provide regular data for a web-based Environmental Information Services to the public. EPA develops products out of the baseline information gathered during the "Fridtjof Nansen" programme

Results area	Programmed 2010	Delivered 2011	Delivered 2012	Delivered 2013	Planned 2014
3. Environmental Assessment/Integrated Management Planning	SEA/ Integrated Management Planning developed with broad stakeholder participation at regional, national levels, with results effectively communicated EIA guidelines, procedures and capacity for reviews of EIAs and permitting strengthened	Continuation and near completion of SEA process, draft process report has been prepared.	SEA final report finalised, to be printed in 2013. Ghana Gas Pipeline project commenced before the EIA submitted, emergency review conducted within Norwegian counterparts.	SEA final report finalised into 3 volumes, process, content and executive summary. Printing and delivering of reports in 2014	An Environmental Assessment Guidelines for Onshore Oil and Gas developed and published to provide an environmental guidance on onshore oil and gas development in Ghana
4. Spatial and Land Use Planning and Coastal Zone Management	A regional spatial development framework, accommodating planning needs related to potential petroleum production has been established Coastal zone management planning strengthened and appropriate communication mechanisms established	Establishment of spatial development framework for western region progressed well. Capacity for spatial planning enhanced through training of XX number of relevant personnel.	Western region spatial dev't framework completed, approved, launched in Feb 2013. 2 areas identified to benefit Ellembelle and Shama districts. Platform for communication and info dissemination initial phase. Training of XX number of Tech staff in advanced GIS.	 Western Region Spatial frame. launched in Feb. Structure Plans and Local Plans for the two districts prepared and approved. 	No envisaged output
5. Standards, regulations and permitting	Locally enforceable standards developed, communicated Env'l regulations, procedures for decommissioning before end-of-use, procedures for coordination between regulators developed	Process for enacting regulations underway, draft legislations prepared, stakeholders' comments received.	 Review of Env'l Protection Act, ERA Regulations Drafts to Norwegian counterparts. Assisted dev't of oil and gas enforcement policy, distribution to stakeholders. 		New Legislative Instrument (LI) passed by Parliament as revision of existing Environmental Assessment Regulations of 1999, LI 1652. LI passed on Waste Management in Ghana

Results area	Programmed 2010	Delivered 2011	Delivered 2012	Delivered 2013	Planned 2014
6. Compliance monitoring and enforcement	Framework for compliance monitoring, enforcement developed Support systems for effective compliance monitoring, timely judgment and rapid decision-making developed Capacity of the judiciary built	No planned activities for 2011	Capacity building in platform and rig auditing	 Jubilee field audited after 3years operation in env'l performance Audit conducted by EPA 14staff trained, 5 conducted the audit Training and audit facilitated by two Norwegian experts. 	16 EPA staff trained in offshore chemicals permitting, monitoring, control and management
7. Waste Management	Regulatory framework regarding waste management related to oil and gas activities has been developed and proposed	No planned activities for 2011	One student assisted in MSc research, had envisaged two students, programme element remains open in 2013	•	 12 EPA staff trained in oil field waste management auditing. Two researches conducted on oil field waste management
8. Community issues, including co-existence of oil and gas industry with fisheries and other traditional industries	Institutional, procedural arrangements and mechanisms for handling community issues and promoting co-existence between oil industry and fisheries and other traditional industries established	Ca. 500 fisher folk educated and consulted on implications of oil and gas dev. on their livelihoods. Issues from consultations used in ongoing SEA process.	No activities undertaken	5 Metropolitan, Municipal and District Assemblies educated on oil spill threats	No planned outputs
9. Health and Safety	Regulatory framework for HS at production facilities, developed	No planned activities for 2011	No activities undertaken	10 Petroleum dep staff, 12 Western regional office staff trained in petroleum operations, HS, env'l considerations and legal frameworks for health and safety.	No planned outputs

Results area	Programmed 2010	Delivered 2011	Delivered 2012	Delivered 2013	Planned 2014
10. Risk Assessment and Emergency Response	Environmental risk assessment (ERA), developed, communicated Oil Spill Contingency Plan developed Operational emergency response capacity strengthened: national, zonal emergency centres and surveillance in strategic locations, personnel trained coordination of public sector resources with equipment available within the private sector	Review of National Oil Spill Contingency initiated. Draft MOU between stakeholders in National Oil Contingency Plan developed, but revision completed, lacking signatures from stakeholders.	No activities undertaken	No activities undertaken	 Data collected and collated for update of Ghana's Sensitivity Map. Two Regional Oil Spill contingency Plans for the western and Central Regions would also be developed
11. Regional Cooperation	Initiative to establish agreements, techniques and procedures for trans-boundary issues to env'l management in relation to neighbouring countries developed, promoted	No planned activities for 2011	No activities undertaken	No activities undertaken	Ten countries in West and Central Africa sub- regions sensitized on Environmental Standards for oil and gas development
12. Programme management	Programme executed successfully by producing all planned outcomes within the agreed Programme budget and timeframe	Nothing reported but funds used for this component but had not been budgeted for (see page7 of the March 2012 Annual Report)	Collaboration of agencies in implementation of program components with coordination from Norway.	No activities undertaken	 Increased activity to improve coordination in Norway and Ghana. Team will assist evalua- tion of programme and engage stakeholders on potential cooperation beyond 2014