

Programme document

Strengthening Resource Management of the Oil and Gas Sector in Ghana 2015-2019



Ministry of Petroleum

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Contents

- 1. Background**
- 2. Programme development**
- 3. Achievements 2010-2014**
- 4. Programme design**
- 5. Sustainability and risks**
- 6. Roles and Responsibilities**
- 7. Donor coordination**
- 8. Annexes**

Abbreviations

ADB	Asian Development Bank
CSO	Civil Society Organisation
EPA	Environmental Protection Agency, Ghana
GNGC	Ghana National Gas Company
GNPC	Ghana National Petroleum Corporation
GoG	Government of Ghana
MCE	Ministry of Climate and Environment in Norway
MESTI	Ministry of Environment, Science, Technology and Innovation of Ghana
MoP	Ministry of Petroleum, Ghana
MPE	Ministry of Petroleum and Energy, Norway
NEA	Norwegian Environmental Agency
NDR	National Data Repository
NORAD	Norwegian Agency for Development Assistance
PC	Petroleum Commission, Ghana
NPD	Norwegian Petroleum Directorate
OfD	Oil for Development
RDB	Reference Data Base
PSA	Petroleum Safety Authority
UNDP	United Nations Development Programme
WB	World Bank

1. Background

Ghana has huge potential to grow and transform its economy through industrialization, creating jobs and ensuring a more equitable distribution of wealth. The fundamental goal of the Government of Ghana's development agenda is to achieve macro-economic stability and grow the economy to a middle income status by 2020.

In July 2007, the Ghana National Petroleum Corporation (GNPC) and its partners discovered oil in commercial quantities in the Jubilee field located in the offshore Tano/Cape Three Points Basin of Ghana's continental shelf. Based on appraisal work conducted on the field, the estimated oil reserves is about 800 million barrels, with an upside estimate of 3 billion barrels. The field has substantial associated natural gas reserves.

In addition to the Jubilee Field, a number of discoveries have subsequently been made, including Mahogany Deep, Odum, TEN and Sankofa. Exploration activities are being intensified, and it is expected that more discoveries will be made both offshore and onshore, including in the Voltaian Basin.

The Government of Ghana expects that the development of the oil and gas industry will stimulate accelerated economic growth, job creation, poverty reduction and general prosperity to the people of Ghana. To satisfy this expectation, there is a need to build the necessary human, organisational and institutional capacity of Ghanaians to enable them participate fully in the petroleum industry. The goal is to sustain and optimise the exploitation and utilisation of Ghana's oil and gas endowment for the overall benefit and welfare of all Ghanaians, present and future.

To benefit from Norway's experiences in managing its petroleum sector development, the two countries signed in 2010 a five-year agreement under the *Oil for Development* (OfD) programme. This was for support to the resource and environmental dimensions of Ghana's oil sector development. In April 2014, a review of the programme was carried out, noting the substantial advances that had been made. The key recommendation was that Norway should respond positively to the Government of Ghana's request for a second five-year OfD programme for the period 2015-2019. This would however constitute the final capacity building support by Norway.

The OfD Steering committee consisting of the four relevant ministries in Norway gave the necessary approval to negotiate a new five-year programme with Ghana, both in the field of resource and environmental management. Thus, two new parallel agreements between Norway and Ghana under OfD, are foreseen. This Programme Document constitutes the Government of Ghana's proposal regarding capacity development in the field of resource management of the petroleum sector.

2. Programme development

This programme document builds on the relations and results developed during the previous OfD Resource programme 2010-2014 between the Ghanaian and Norwegian partners. On the Ghanaian side, the Ministry of Petroleum (MoP) in collaboration with the Petroleum Commission is responsible for the development and planning of this Programme, with Norway's Ministry of Petroleum and Energy, the Norwegian Petroleum Directorate (NPD) and the Petroleum Safety Authority Norway (PSA) as the collaborating partners. There has been close and continuous dialogue between the parties not only regarding the implementation of the current OfD programme, but also in connection with the development of this Programme Document. The key elements here are thus not only a function of Ghana's policies and priorities, but also based on what the Norwegian partners have counselled they would be able to support. Moreover, information provided by our Norwegian counterparts regarding lessons learned from similar projects under the Norwegian OfD programme elsewhere has been taken into account in the formulation of this Programme Document.

This cooperation with Norway is one of many cooperation initiatives the Government of Ghana has established and the Programme is therefore aimed at focusing on the areas where the particular experience and competence from Norway is relevant. Information regarding assistance from other international donors such as the World Bank, DfID, the EU, the Netherlands, GIZ have also been factored into the Programme development and planning.

The main reference for the development and planning of the cooperation Programme has been the National Energy Policy, and in particular the goal to ensure that the petroleum resources are produced in a sustainable manner and for the overall benefit and welfare of all Ghanaians.

The planning of the resource management component is conducted in parallel with a similar planning process for the Environment component. In May 2013 the Ghanaian government submitted a request for technical cooperation with Norway on petroleum Revenue Management. Introductory training activities have been undertaken, but a programme and contractual framework for a longer-term cooperation on Revenue Management is still to be developed. The IMF is expected to be a key provider of technical assistance, but Norwegian government institutions are also likely to be involved. An initial dialogue between the Ghana Revenue Authority and the Norwegian Oil Taxation Office is planned early 2015.

3. Achievements 2010-2014

The 2010-2014 programme contained seven Programme Areas, for which specific Outputs had been planned. Annex I shows the planned and actual results that were delivered. Following is a summary of the achievements by programme area.

General: 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.

1. Policy, legal and institutional functions and framework: major progress. The Ghanaian authorities took major steps regarding legislation and political frameworks: the Petroleum Revenue Management Act was passed; the Petroleum Commission Bill was submitted and passed by Parliament. A revised Petroleum (Exploration and Production) Bill was prepared for passage into law by Parliament in 2014. By the end of 2011, the Petroleum Commission (PC) was formally established, and subsequent visits to Norway have provided insights into how the Norwegian regulator's functions and operations have evolved over time, giving inputs and inspirations for how the PC could function in the Ghanaian context. By April 2014, sixty-five (65) PC staff had been contracted and in place in new offices funded over the parallel support from the World Bank. The (Petroleum Local Content and Local Participation) Regulations – whose implementation and oversight is a PC area of responsibility – was passed into law by Parliament in November 2013. The Norwegian assistance is now to include the development of general and technical regulations to give better effect to the exploration and production law. A Core Team and four technical groups are now drafting technical regulations on Fiscal Metering, Data Management, HSE and Drilling. In addition, drafting of a General Petroleum Regulation is also underway. *The main conclusion* is that the key tasks foreseen under this results area were to a very large extent implemented well. While institutional development is progressing, 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 until this was in place, but these issues are now largely resolved.

2. National Data Repository. 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 transferred to them. However, 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 a major part of the data have been transferred. OfD provided key staff on site in periods. Overall, this programme has progressed as well as any other similar programme.

3. ***Subsurface, development and resource assessment.*** In the initial phase of the programme, capacity building in subsurface and development dimension as well as the resource assessment was concentrated on GNPC staff. The Jubilee field was widely used as a case study. During 2012 and 2013 this programme area was delayed until the PC was firmly established. With this resolved, the programme then progressed rapidly with the training of the newly hired PC staff, though much remains to be done to ensure sufficient capacities in these fields.
4. ***Gas export project.*** This component was to address the disposal of associated gas from the Jubilee Field, including the option to “export” the gas to shore (hence the somewhat misleading title of this programme area). Norway recommended that the gas be brought on-shore by the oil company, and not to separate the ownership of gas from that of oil. Ghanaian authorities decided to handle bringing the gas ashore themselves due to their concern in using it for domestic purposes (power generation, feed stock for fertilizer industry, etc). The Norwegian Petroleum Directorate (NPD) was subsequently part of a fact-finding mission towards the end of 2013, and plans exist for continuing collaboration on this issue, which is considerably behind the original schedule.
5. ***Human resources and HSE.*** Health, Security and Environment (HSE) dimensions have been integrated in the training/mentoring activities carried out by NPD and the Petroleum Safety Authority Norway (PSA) and in the formal courses organised by Petrad. Two workshops were dedicated to HSE, and a special session was held for MoP staff. Perhaps more importantly as far as specialist knowledge is concerned, mentoring and training have been central to the drafting of the technical 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 18 and 24 participants respectively from the PC.

The overall achievements under the programme were therefore seen as very satisfactory. The factors that explain this good result were seen as several. They include:

Ghana in driver’s seat: clarity on objectives. Clarity on the Ghanaian side as to what they wanted 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 division of labour were in place. While the Petroleum Commission was a new body, this was developed with a clear sector understanding of its place and functions and in the context of a sector with well-established routines and a history of capacities.

Technical skills: largely in place. While Ghanaian staff require 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 was good, 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 cost effective since salary costs are lower than if the programme had to procure consultancy services on the private markets.

Institutional twinning: ensuring stability. The fact that there are institutional agreements is significant, because it means that a Norwegian public agency 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.

The coming programme period thus intends to build on the results so far achieved and develop the factors that account for the success.

4. Programme design

4.1 Programme goal and hierarchy

4.1.1 Goal (impact) of the OfD programme

The Oil for Development programme in Ghana targets poverty reduction through responsible management of petroleum resources. This is also in line with the goals set by the Government of Ghana in the National Energy Policy.

The assumption that a responsible management of the petroleum resources, leading to revenue, will reduce poverty, presupposes that the government has the ability and will to implement policies aimed at fair distribution. Several factors outside the programme will obviously influence whether this can be achieved. There is, however solid evidence to suggest a causal relationship between accountable management of the petroleum sector, high quality institutions and the likelihood of poverty reduction¹.

In the Oil for Development Programme, a “Responsible Management” is defined as “Economically, Socially and Environmentally responsible management”. Any effort in

¹ World Bank (2012, p 4): «From Rent to Riches»

the programme is directed towards this goal (impact).

Selected indicators for measuring progress at impact level:

Impact	Indicator	Baseline Dec 2014	Source
Economically, Environmentally and Socially responsible management of petroleum resources	<i>Performance on the NRGIs Resource Governance Index:</i>	Index published late 2013. New version available late 2015	NRGI (Natural Resource Governance Institute)
	1. Composite score	63/100, Rank: 15/58	
	2. Institutional and Legal Setting	79/100, Rank 12/58	
	3. Reporting Practices	51/100, Rank 25/58	
	4. Safeguards and Quality Controls	73/100, Rank 13/58	
	5. Enabling Environment	59/100, Rank 13/58	
	<i>Rank on the Worldwide Governance Indicators:</i>	Percentile Rank (2013) To be updated with report from 2014	World Bank
	1. Voice and accountability	60.7/100	
	2. Political stability	47.4/100	
	3. Government effectiveness	50.7/100	
	4. Regulatory quality	55.5/100	
	5. Rule of law	56.9/100	
	6. Control of corruption	56.5/100	
	<i>Rank on the Gender Inequality Index</i>	0.549, Rank 123/187 (2013) To be updated with report from 2014.	UN (United Nations Development Programme)

The programme will contribute to this abovementioned goal through the following three main outcomes:

Outcome 1:

The Authorities of Ghana have established policy and frameworks, defined and delegated responsibilities for managing the petroleum sector in an economically, socially and environmentally good way.

Outcome 2:

Authorities of Ghana have knowledge and capacity to manage the petroleum resources in accordance with their mandate (policy, legal and administrative framework) in the petroleum sector.

Outcome 3:

The authorities of Ghana are held to account for the management of the petroleum resources.

The outcomes and outputs to be produced in the Programme are further described in Chapter 4.2.

4.2 PROGRAMME DESCRIPTION

While the outcomes above apply to the OfD programme in full, this programme has been designed to prioritize activities that will enhance the Government's *resource* management capacity in the oil and gas sector. The outcomes for MoP and PC have therefore been adjusted according to this.

A main reference for the development and planning of the cooperation Programme has been the Ghanaian National Energy Policy, approved by the Cabinet on 16th of March 2010 and the Strategy and Development Plan issued in parallel by GoG. The official policy and strategy plan states;

“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”.

The official Policy focuses on the regulation of the petroleum industry with respect to licensing and operation of the oil and gas companies; improving Ghana's institutional and human resource capacity; enhancing local content; and fiscal incentives that will ensure maximum benefits to the people of Ghana. The policy also seeks to ensure transparency in the use and distribution of the oil revenue.

In order to achieve the defined impact and outcomes of the programme, the Ghanaian authorities have identified five components to be included in the new programme. These components are to a large extent a continuation of the programme areas in the previous programme (2010-2014):

Programme Components;

- 1) Policy, legal and institutional functions and framework
- 2) Data management. National Data Repository (NDR)
- 3) Subsurface and development
- 4) Resource assessment
- 5) HSE and management systems

The program components have been organized in accordance to Norad's result framework with the three main outcomes, as defined in chapter 4.1. A more detailed

description of the result framework is given in appendix II. Proposed activities and related timelines and budgets will be developed in annual work plans.

Outcome 1;

The resource management authorities of Ghana (MoP and PC) have established policy and frameworks, defined and delegated responsibilities for managing the petroleum sector in an economically, socially and environmentally good manner.

This refers to Component 1 in the Programme.

Justification

In order to ensure a responsible management of the petroleum resources, Ghana needs an adequate policy, legal and administrative functions and frameworks. Further, establishment of a new regulator (PC), new stakeholders such as Ghana National Gas Company (GNGC), plans for starting onshore petroleum activities and an emerging petroleum industry, all imply that battery limits, roles and responsibilities need to be defined across institutions and legal framework. PC, as one of the main players, will need to develop a strategy for such issues, including cooperation with other institutions.

MoP, on a more overall level, will be challenged on the need for updating and reviewing the policy and the institutional framework, as a part of the process of introducing new legal framework, including a new Petroleum (Exploration & Production) Bill, technical regulations and updating of the Model Petroleum Agreement.

This outcome includes a review of relevant policies, laws, subsidiary legislations, as well as clarification of roles and responsibilities between the institutions to contribute to a well-coordinated and result oriented governance on resource management and health, safety and environmental issues (HSE). Subcomponents are given below;

Component 1; Policy, legal and institutional functions and frameworks.

a) MoP has appropriate policy and legal framework for regulation of resource management and HSE

A review of relevant policies, laws, subsidiary legislations, and clarifications of roles and responsibilities. The new Exploration & Production Bill is currently in the Parliament for passage into law. Upon enactment, assistance and support to be given on implementation, , interpretation, consequences of stability clauses in existing Petroleum Agreements, harmonization with other laws and regulations and responsibilities between institutions. A development of a Strategic Environmental Assessment (SEA) for onshore activities is to be coordinated with EPA and with the Environmental Management Programme

b) MoP has a Petroleum Directorate with clarified strategy, roles and responsibilities

In light of the establishment of a new regulator, the PC and the anticipation of new technical regulations to be enacted, there is a need to review and clarify roles and responsibilities both within MoP (Petroleum Directorate) and between MoP and PC. .

c) PC has key regulations and guidelines within resource management and HSE

For PC to execute and enforce its mandate in accordance with objectives and functions defined in the Petroleum Commission Act, there is a need to develop key regulations and associated guidelines. Regulations for Data Management, Fiscal Metering, HSE, Drilling and a General Petroleum Regulations are to be completed and public hearing to be undertaken. Guidelines for the regulations, where relevant, are to be completed and aligned.

Indicators for measuring programs at outcome level:

<p>Outcome 1: The resource management authorities of Ghana (MoP and PC) have established policy and frameworks, defined and delegated responsibilities for managing the petroleum sector in an economically, socially and environmentally good manner</p>	<p>Indicator:</p> <ul style="list-style-type: none"> • Policy, administrative and legal framework in place
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	Key outputs:
1	Review and update relevant policies, laws and subsidiary legislation
2	Development of a Strategic Environmental Assessment (SEA) for onshore activities to be coordinated with EPA
3	Review and clarify the roles and responsibilities within MoP, and between MoP and PC
4	Develop regulations by end 2015 for Data Management, Fiscal Metering, HSE and General Petroleum Regulations
5	Draft guidelines for the regulations (where relevant)
6	Evaluation of PC role and responsibility towards other institutions and agencies

Baseline

- A National Energy Policy and a Strategy & Development Plan were issued by GoG in 2010. GoG is reviewing the need for updating relevant parts.
- A Petroleum (Exploration & Production) Bill is in the Parliament for passage into law, and will succeed the current Petroleum (Exploration and Production) Act 1984, PNDCL 84. A new petroleum regulator, the Petroleum Commission, was established in 2011 with object and functions as defined in the Petroleum Commission Act. Technical regulations need to be developed to enable the PC better execute its mandate. . Systems for enforcement and implementation, definitions of battery limits,

roles and responsibilities across institutions and legal framework, cooperation agreements are currently not developed. PC has been assigned the mandate to receive and store petroleum data and manage a national petroleum repository (NDR). The ownership of Petroleum data is currently defined in the 1984 Petroleum Act, PNDCL 84 and the GNPC Act, PNDCL 64. It is anticipated that the , ownership and access to petroleum data would be further clarified by the proposed Exploration and Production Bill.. This is also a premise for PC's ambition with respect to establishment of a commercial model for sale of petroleum data.

Outcome 2:

The resource management and HSE authorities of Ghana (MoP and PC) have knowledge and capacity to manage the petroleum resources in accordance with their mandate (policy, legal and administrative framework) in the petroleum sector

This refers to Components 2) to 5) in the Programme

Justification

To be able to implement and apply policy, legal and administrative framework and to manage the petroleum resources in accordance with the mandate, there is identified the need for capacity and competence building in MoP and PC. The objective is to enhance technical and management skills, including systems, work processes and capacity to carry out audits and inspection to ensure compliance.

The objective is that MoP and PC at the end of the programme period would acquire sufficient capacity and knowledge to manage the petroleum resources in accordance to policy, legal and administrative framework.

Component 2: Data management. National Data Repository (NDR)

The mandate to receive and store petroleum data and to manage a national petroleum repository (NDR) on behalf of Ghana, is vested in the PC. This includes to secure and implement physical and digital storage and administration of petroleum data. Exploration and other relevant data is to be systemized, and made accessible to end users (GoG, industry and public), contributing to increased attractiveness of the offshore basin, cost effective exploration and exploitation of the petroleum resources, and better decision processes. The objective for this component is that PC at the end of the programme period, has acquired an NDR with specifications in accordance to their needs and that they have capacity and systems in place to efficiently run and manage the NDR without significant further assistance. This component will be carried out in collaboration with the World Bank (financial support for the hardware and software for a data bank).

The scope will include capacity building in PC for transcription and quality control of seismic and other petroleum legacy data and for loading of petroleum data into the NDR. To enable an overview of key petroleum activity data (seismic, wells, installations etc) a

reference data base will be established (RDB). The RDB will be based on work from program phase I. Specification of NDR data storage capacity, hardware and software is to be established, including preparation of documentation for tendering processes to ensure establishment of an NDR with specifications in accordance to Ghana's needs. Further, assistance and competence building will be given to the PC for planning of the data management housing facilities, implementation of the ICT infrastructure and data management organization.

Support and capacity building will be given to assist PC to establish, run and manage a national petroleum repository (NDR), including to develop systems and reporting formats and standards.

Component 3: Subsurface and development

There is a need for competence building and training of MoP (Petroleum Directorate) and PC within subsurface and development related issues, in order for them to manage in accordance with their mandates. The mandate for PC include, among others; to ensure optimum exploitation of petroleum resources, assess and approve appraisal programmes, optimal utilization of existing and planned infrastructure, compliance with fiscal metering requirements and to advise the Minister on petroleum activities including field development plans, transportation and processing systems and decommission plans. Targeted training on key areas will be carried out accordingly.

Within fiscal metering, competence and capacity building will include establishment of systems, procedures and relevant work processes, and to undertake audits (management system and technical) and inspections.

Component 4: Resource assessment

Capacity building in resource estimation is needed in order to increase predictability and to improve the basis for good management of the resources. Relevant topics are basin and prospect analyses, resource assessment and accounting & classifications systems. Training of relevant discipline staff on sequence stratigraphy, depositional environment analysis, basin formation and modelling, prospect evaluation with uncertainty and risk analysis, evaluation of appraisal programmes. The goal is that by end of the programme, PC has established capacity and systems to carry out independent and inhouse resource assessment and is be able to issue an annual report on petroleum resources in accordance to their mandate.

Component 5: HSE and management systems

The Ministry of Petroleum is responsible for identifying policy issues that need to be addressed alongside defining the policy space. The HSE policies will reflect in applicable laws and ensure that there are adequate key performance indicators (KPIs) that are well

defined and used in the monitoring and evaluation of the Ministry's work to ensure continual improvement in the HSE performance of the petroleum sector.

The HSE policies will form the basis for identifying the appropriate boundaries to define HSE standards and standard operating procedures (SOPs) for all petroleum activities. This will ensure that petroleum activities are carried out with as low as reasonably practicable (ALARP) harm to people, property, environment and the reputation of the country.

PC is to ensure compliance with health, safety and environmental standards in petroleum activities in accordance with applicable laws, regulations and agreements. Competence and capacity building to be carried out to conduct risk analyses, audits (management system and technical), inspections, incident investigations and follow-up activities and to establish relevant work processes and procedures. There is also a need for capacity building in emergency response and development of a national emergency preparedness plan.

The goal is that by end of the programme, PC has established capacity and systems to monitor and to ensure that activities are in compliance to the regulations.

Baseline

- The Petroleum Commission (PC) has been established, staff recruited (about 65 people as per today), but lacks practical experience and skills for enforcement of their mandate, including executing audits, inspection and monitoring for compliance
- A new data center is currently under construction by PC. PC's capacity is currently limited with respect to comply with the complexity of establishment, operation and maintenance of an NDR
- The Petroleum Department in MoP lacks practical experience and skills, including on institutional framework and policy
- Definition of roles and responsibilities between petroleum Department and PC needs to be clarified, may affect the scope of training

Indicators for measuring progress at outcome level:

Outcome 2: The resource management and HSE authorities of Ghana (MoP and PC) have knowledge and capacity to manage the petroleum resources in accordance with their mandate (policy, legal and administrative framework) in the petroleum sector	Indicators: <ul style="list-style-type: none"> • MoP and PC have capacity, systems and competence to ensure enforcement, compliance and regulation
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	Key outcomes
1	On the job training and capacity building of MoP staff in strategy development, policy formulation and development of legislation in resource and HSE management

2	Establish data management housing facilities and ICT infrastructure
3	Establish a Reference Database (RDB) for key petroleum data
4	Systemize and quality check seismic and other legacy data and prepare the data for loading into the NDR (Seismic data by 2015, well data etc. by 2016)
5	Develop the systems, procedures and skills to establish, run and manage the NDR by 2019
6	On the job training of MoP and PC within the key issues as exploitation / recovery strategy, development plans (POD), technical solutions and infrastructure
7	Development of PC competence, systems and procedures for fiscal metering, including undertaking audits and inspections by 2016
8	Training for MoP and PC in petroleum economic information analysis, and economic modelling
9	On the job training of PC staff in resource assessment
10	Mentoring and capacity building for MoP staff in identifying policy action areas and defining policy space for HSE issues
11	Training and capacity building for MoP and PC staff in risk analyses, audits (management and technical), inspections and incident investigation
12	Training and capacity building for development of a National emergency preparedness plan by 2017, coordinated with MoP

Outcome 3:

The resource management and HSE authorities of Ghana (MoP and PC) are held to account for the management of the petroleum resources.

Justification

Ensuring adequate levels of transparency and a strong focus on accountability are main ingredients in ensuring sustainable management of the petroleum resources that safeguards the needs of present and future generations. Accountability and transparency are key factors to ensure the success of licensing rounds and the development of the petroleum sector in Ghana. Transparency would allow national actors in the accountability chain to be able to hold the government accountable for the management of the national resources. Transparency is also an important factor in preventing corruption.

The main target group for activities under Outcome 3 includes decision makers, civil society organizations, media, as well as public control institutions including the Parliament. In order to play a meaningful role these national stakeholders must have independence, relevant competence and capacity as well as access to information about the petroleum sector. Given the complex managerial and technical requirements of the sector, MoP, PC etc are required to provide the knowledge and information to the national stakeholders to enable them to follow the process and monitor its progress. The government institutions will benefit from a more informed and fact-based public discussion.

Outputs will be training and capacity building for; I) carrying out public hearing and consultations, II) publishing of annual reports on petroleum resources for PC and MoP staff, and III) capacity building of the public control institutions, including the Parliament.

Indicators for measuring progress at outcome level:

Outcome 3: Accountability in management of the petroleum resources	<ul style="list-style-type: none"> Resource management and HSE policies are communicated by Parliament, MoP and PC to relevant ministries, the industry, NGO's and other stakeholders
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	Key outcomes
1	Training and capacity building for carrying out public hearings and consultations for PC and MoP staff
2	Training and capacity building for MoP and PC staff in order to publish annual reports on petroleum resources
3	Competence and capacity building for key actors relevant for accountability in the petroleum sector

Baseline

- Procedures and practice concerning public hearings of laws and regulations are not clarified, same status for consultations with oil industry prior to issue of technical regulations
- The public, the media and NGO's do not have sufficient knowledge about oil and gas activities to ask relevant questions in stakeholder reviews and hold the companies and the authorities accountable for their work
- Reports and overviews of key petroleum parameters as the petroleum resource basis are not easily available. The Petroleum Commission Act has given PC the mandate to issue annual reports on the petroleum resources

4.3 Programme Inputs

Essential Programme inputs will be:

- Technical assistance (including advice and consultancies) and capacity building support (including training resources and study tours) provided by relevant experts in Norwegian resource management and HSE authorities.
- Active participation by relevant personnel from Ghanaian resource management and HSE authorities.
- Relevant results of previous and already ongoing activities (see section 3).
- Information on relevant best practice and experience internationally (i.e. in countries beyond Ghana and Norway)

A preliminary budget according to the above programme structure is provided in the table below. As equipment and other physical investments are not foreseen to feature as inputs to the Programme described here, funding for this will continue to be sought under other international donor initiatives, such as the World Bank programme.

4.4 Programme budget

The resource management component is a part of a holistic program towards Ghana. The total budget for the different components is 78 million NOK, with an allocation as given in the table below:

Indicative budget for the OfD-program, divided in the different components (mill. NOK).

Component/Year	2015	2016	2017	2018	2019	Totals
Resource Management	8	8	6	5	4	31
Environmental Management	6	6	4	3	2	21
Revenue Management, exclusive IMF	4	4	3	1	1	13
Social responsibility	3	3	3	2	2	13
Totals	21	21	16	11	9	78

The budget estimates for the resource management programme are broken down according to the three outcomes.

Preliminary budget, in NOK mill

Programme Areas	2015	2016	2017	2018	2019	Totals
Outcome 1 (Legal/administrative framework)	3.5	3.0	2.0	2.0	1.5	12.0
Outcome 2 (Capacity building)	4.0	4.5	3.5	2.5	2.0	16.5
Outcome 3 (Accountability)	0.3	0.3	0.3	0.3	0.3	1.5
Programme management	0,2	0,2	0,2	0,2	0,2	1,0
Totals	8.0	8.0	6.0	5.0	4.0	31.0*

* Approximately USD 4 million at current rate (1usd=7,75 NOK)

5. Sustainability and risks

5.1 Sustainability

This programme will entail institutional strengthening (legal frameworks and other societal “rules of the game”), organizational development of MoP and the PC, and upgrading and awareness raising of their staff under a programmatic approach.

Ghana had a number of laws and institutions in place for managing the petroleum sector, and this situation was further improved during the current OfD programme. Activities

during this coming programme period will be aimed towards strengthening Ghana's capacities for designing and completing necessary modernization of legal frameworks. There will be focused on Ghana's capacity to monitor and enforce these frameworks, assess their appropriateness and functionality, in order to ensure a modern, pro-active and quality management of the oil and gas sector.

The sustainability of the impacts of the outputs of the Programme components beyond the end of the Programme period and thus the achievement of the Programme goal are expected to rest mainly on the following three key assumptions:

- The Government of Ghana is committed to achieving coherence in the legislative framework dealing with the petroleum sector.
- The Government of Ghana continues to pursue the ongoing process to restructure, consolidate and clarify the mandates of Ghana's petroleum sector institutions.
- The Government of Ghana secures adequate future funding for these institutions enabling them to carry out their mandates in an efficient manner

Sustainability and exit strategy

This program phase, running from 2015 until the end of 2019 is the second and last OfD-program period in Ghana. Activities carried out need to strengthen MoP and PC in a way that makes them capable of efficient management of oil and gas activities after the closure of the program.

Through the execution of the programme, it is important to ensure that knowledge and capacity remains in the institutions. In addition, more measurable concrete outcomes should have focus, like development of laws and regulations, organization structures, written work procedures and systems developed such that MoP and PC has the tools to ensure enforcement and compliance to regulations. Further, that PC has established and implemented systems to run and manage the NDR without significant assistance.

The first program phase has to a large extent been based on integrated learning and through a learning by doing approach, and will be continued into the next phase. In practice, this means that training and capacity building is carried out in integrated teams, constituted by Ghanaian and Norwegian counterparts, and with focus on solving real work tasks, like the establishment of the NDR or like carrying out a resource assessment based on a real field case with a defined purpose for the institution. This way of working, gives a higher degree of local ownership and will be a good method for reaching sustainability.

PC has currently about 65 permanent employees and the World Bank finances some of the staff. PC is evaluating different alternatives of funding (in addition to the governmental funding), including commercial models for the NDR, based on sale of petroleum data, fees from applications and refunding of expenses from audits. The institutions will need to develop a business strategy that will ensure the future employment of existing staff.

The budget allocates yearly funds on a declining basis. This underlines the need for MoP and PC to carry out their work without support from the OfD-programme when the time for closure is approaching.

5.2 Risk and risk management

5.2.1 Internal risks

The Programme is at the same time subject to both internal and external risks. Internal risks are those that may be mitigated by the Programme design or implementation. The most important internal risks are:

- ***Scarcity and loss of key expertise*** necessary for an efficient and successful execution of the Programme and for achieving Programme objectives and purposes. This risk is considered to be the most relevant and likely risk and will be mitigated by not only training individuals, but by also developing procedures and management documentation. Training should focus on permanently employed staff and not hired consultants
- ***Poor inter-institutional cooperation*** resulting in underachievement when it comes to the achievement of Programme outputs. This risk will be mitigated by ensuring that all the institutions that are central to the achievement of the results are represented in Programme management arrangements
- ***Slow decision making process*** resulting in ineffectiveness and a lack of necessary adaptability in Programme execution. A Programme management structure will be set up which is meant to mitigate this risk.
- ***Weak stakeholder involvement and commitment*** resulting in inefficient Programme execution and potential failure to reach the Programme objectives and purpose. To mitigate this risk all the institutions that are central to the achievement of the results are represented in Programme management arrangements
- ***Lack of coordination between interrelated Programme components and other initiatives*** resulting in failure to exploit potential synergies. To mitigate this risk a Programme management scheme will be set up.
- ***Lack of financial management*** where either under-budgeting or over-expenditure on some Programme components may reduce financial resources available to other key activities. This will be particularly important as the overall financial frame for this coming period is highly constrained and funding must thus be carefully managed. To mitigate this risk, costing of inputs will be carefully reviewed. The collaboration between the various input suppliers – especially on the Norwegian side – will need to be close with continuous reporting and monitoring of expenditures ensuring that any over-expenditures – expected or realized – will be

identified early and mitigating steps can be put forward, discussed and implemented to immediately address the potential budget problem.

5.2.2 External risks

External risks are those that may not easily be mitigated by the programme design or implementation. The most important external risks are:

- ***Insufficient political support*** for allocating and maintaining necessary personnel input for the Programme in the face of competing demands on the same personnel related to other needs
- ***Poor mechanisms for follow-up and implementation*** of Programme results by parties external to the Programme.
- ***Expected complementary inputs/activities*** by other partners may not emerge as expected (for example due to other donor budget cut-backs), so synergies/supplementary activities that were counted on to make this Programme progress may not happen.

5.3 Crosscutting topics in the OfD-programme

The OfD Programme takes a holistic approach in its assistance to partner countries, meaning that the management of resources, revenues, environment and safety are addressed in a coherent manner. Gender, climate and anti-corruption are cross-cutting considerations.

Gender

The oil and gas industry is generally a male dominated sector, and consequences of oil and gas related activities may differ for men and women. The program will seek to minimize gender differences in negative impacts or opportunities created by the oil and gas sector.

Development of Policy/Institutional Frameworks and Capacity Building

The program shall ensure that Ghana's policy, legal and administrative frameworks for the petroleum sector are gender sensitive, and in accordance with other national and international plans that Ghana comply with for the improvement of gender equality. Training activities in this program will target both genders equally.

Strategic Environmental Assessment (SEA)

In the period of this program agreement, Ghana will probably carry out an onshore SEA. The program shall consider gender equality during the conduct of the SEA, including investigations of how men and women are affected differently by the oil and gas activities as well as women and men's participation in consultation processes, grievance mechanisms, appraisal of risks and creation of opportunities at every stage of the project development.

Public hearings

Under Outcome 3, accountability and transparency in the management of the petroleum resources is strong. The program shall ensure that gender considerations are duly respected in the shaping of policies, in published information, and in communications from MoP to other relevant ministries, the industry, NGOs, and other stakeholders. Finally, public hearings shall be conducted in spaces and under circumstances that ensure women's access to these meetings.

Climate Change

Ghana's Environmental Policy and National Climate Change Policy were launched in June 2014. One of the activities in the next phase is to contribute to the implementation of the Environmental Policy. Furthermore, capacity building within the reduction of emissions to air and energy efficiency for oil and gas activities is included in the program. This will increase the focus on how the oil and gas industry contributes to global warming, how Green House Gases from the oil and gas activities can be reduced in Ghana and effectively address how Climate Change can be mitigated.

Anti-corruption

The programme has the potential to facilitate transparency and accountability and reduce possibilities of corruption through the efforts within all three Outcomes (Outcome 1-3). Development and publishing of policies and legal framework, institutional capacity building as well as training of civil society contribute to holding authorities to account and reduce corruption.

6. Roles and Responsibilities

The Ministry of Petroleum (MoP) provides sector policy direction and supervises regulatory agencies that report to the Minister. Within MoP, the Petroleum Directorate will be overall responsible for the day-to-day management of this programme, in close collaboration with the other Ghanaian institutions involved, in particular the Petroleum Commission.

6.1 Organization of Programme and resources allocated

In terms of formal agreements, a bilateral Programme Agreement between the Norwegian Embassy in Accra and the Ghanaian Ministry of Finance (co-signed by MoP) is foreseen. The role of OfD in Norad will be one of technical backstopping.

In addition to the Programme Agreement, an Institutional Cooperation Agreement between the key participating ministries, departments or agencies in Ghana and Norway is foreseen. On the Ghanaian side these are MoP and the Petroleum Commission. On the Norwegian side the key partners are the Ministry of Petroleum and Energy, the Norwegian Petroleum Directorate (NPD) and the Petroleum Safety Authority (PSA). The Institutional Agreement will be signed by MoP and the Norwegian Ministry of Petroleum and Energy. The

Norwegian Petroleum Directorate will be delegated the main responsibility for the the programme on the Norwegian side.

The Norwegian Government will provide:

- Programme funding
- Programme coordinator
- Institutional partners relevant to the specific Programme components and outputs
- Government experts, consultants and training institutions will be made available for programme implementation through the institutional partners.

The Ghanaian Government will provide:

- Programme manager
- Coordinators from participating Ghanaian authorities
- The physical facilities and available equipment for the project components to be operational
- Suitably qualified Ghanaians to participate in the activities of the Programme
- The available Government financing for implementing the foreseen activities.

6.2 Reporting

MoP, in collaboration with PC-Ghana will prepare annual progress reports that will include the following information:

- A description of achievements related to;
 - Annual work plans approved in the annual meetings
 - The result frame work, corresponding indicators and risks
- A brief summary of the use of funds compared to budget,
- An assessment of the efficiency of the Programme (how efficiently resources/ inputs are converted into outputs),
- An explanation of major deviations from approved work plans,
- An assessment of problems and risks (internal or external to the Programme) that may affect the success of the Programme, in particular those listed in the programme document, including actions for risk mitigation,
- An assessment of the need for adjustments in the outcomes/outputs given in the result framework and activities given in the annual work plans.

A **work plan** shall be submitted annually. The work plan shall specify planned outputs and time schedules for the next fiscal year.

Annual **financial statements and budget** will be submitted in time for approval at the Annual Meeting (see below).

Annual **audit reports**, as specified in the programme agreement, will be provided by Ghana in the case where transfer of funds have been made to Ghana.

A **final report** will be submitted within 3 months after the completion of the Programme, including descriptions of achievements related to:

- The result framework and accompanying indicators and risks.
- An assessment of the effectiveness of the Programme, i.e. the extent to which the Goal and Outcomes and accompanying indicators have been achieved,
- An assessment of impact (if possible), i.e. the changes and effects, (positive and negative, planned and unforeseen), of the Programme seen in relation to target groups and others who are affected,
- An assessment of the sustainability of the Programme results, i.e. an assessment of the extent to which the positive effects of the Programme will continue after the external assistance has been concluded,
- A summary of main “lessons learned”

A Mid-term and an End Review of the programme shall be carried out.

6.3 Annual Meeting

Representatives of GoG and Norway shall have an Annual Meeting within the first quarter each year in order to:

- Discuss the progress of the Programme, including results and achievement of agreed obligations
- Discuss and, if feasible, approve annual work plans and budgets for the following year
- Discuss issues of special concern for the implementation of the Programme, such as the major risk factors and how to manage such risks/issues.

The Annual Meeting shall be a joint meeting of all the programme components with funding under the *Oil for Development* programme, currently foreseen to include Resource/HSE, Environment and Revenue. The GoG will decide which of their relevant ministries will convene and chair any particular Annual Meeting. Main issues discussed and points of view expressed as well as any decisions taken shall be recorded in Agreed Minutes. The Agreed Minutes shall be drafted by the Ministry named to chair that meeting and be submitted to Norway for comments no later than two weeks after the Annual Meeting has taken place.

6.4 Use of Norwegian competence, procurement

The cooperation Programme is set up to aid GoG by means of technical assistance, advice and support. The resources will to a major degree be drawn from relevant Norwegian authorities, regulators and governmental experts. Based on availability, relevant expertise could also be sourced from elsewhere. This will be decided through consultations between Ghanaian and Norwegian partners.

Norway may undertake procurement of goods and resources on behalf of GoG. In such case, the procurement will be carried out in accordance with Norwegian public procurement law. Terms of Reference for any goods and services thus procured shall be prepared in cooperation and agreement with GoG. Contracts and major commitments shall be based on the approved annual work plans.

6.5 Disbursement mechanism

Invoices are to be issued quarterly for approval by MoP. Once approved, the invoiced amount will be disbursed by Norway to the supplier. Original invoices will remain with MoP for auditing.

Under the annual meetings, the work plan and corresponding budget for the year will be provided for approval. To the extent funding is agreed to be paid directly by MoP or PC for any direct procurement in Ghana (for example local consultants, hotel fees and other costs related to work sessions), the agreed lump sum can be transferred from the Norwegian Embassy to MoP. MoP will ensure swift onward transfer of funds to PC within the established rules and regulations of the GoG. Such funds will be subject to audit by the Auditor General in accordance with the laws of Ghana.

7. Donor coordination

There are several GoG/development partner programmes in the oil and gas sector in Ghana. These include the World Bank, DFID and USAID programmes. There is to a certain extent joint programming coordinated by GoG, but the various programmes are mainly administered on a separate basis. In a number of fields, the collaboration and coordination is fairly tight. It is expected that over time, GoG will formulate a more broad-based sector programme with common reporting, disbursement mechanisms etc. that will be fully managed by national authorities and to which all donor-funded activities will adhere. Norway will support such a development and will be willing to modify the above principles of this Programme to accommodate such overarching sector approaches as and when they become operational.

8. Annexes

Annex I presents the programmed and actual results during the period 2010-2014

Annex II presents the Results Framework for MoP and PC for the period 2015-2019

Annex I: Resource Component 2010-2014: 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	<ul style="list-style-type: none"> • PC Act passed by Parliament • E&P Bill approved by Cabinet and in Parliament for debate/passage • LC Regulations passed by Parliament • General, HSE, Fiscal Metering, Drilling and Reservoir Management regulation drafts and guidelines ongoing. .
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.	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • 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;	<ul style="list-style-type: none"> • Government staff trained in value chain of petroleum sector. • Technical workshops through Petrad training programmes

Annex II: Results Framework, MoP and PC, 2015-2019