Chapter 2

Government's Role In the FDP Process

The FDP is submitted to the government for approval and is therefore a critical moment in the project lifecycle where decisions will affect the field value and associated benefits to the country for 20 years or more. For a developing country, a single FDP can easily be equal to, or double the size of, the entire economy because of the scale of investments and potential government revenues. It is therefore of paramount importance that the government is able to review these plans to ensure that the economic, social and environmental issues are effectively addressed.

2.1 What Is the government's role in the FDP process?

The ownership of petroleum resources is vested in the State on behalf of its citizens. The Government clearly has a responsibility to ensure that the country's finite resources are sustainably developed and effectively managed to provide maximum benefits to its people. This duty is discharged through:

- 1. Clear strategies, policies and laws. A robust regulatory framework (strategy, policies, legal framework) should be developed which is consistent with national goals and international best practice. This provides clear direction to investors and the public on the government's expectations for the sector and the "rules" under which activities will be undertaken.
- 2. Effective regulatory oversight. A "regulatory" function to ensure compliance with strategies, policies, laws and international best practice. This would cover the full spectrum of specific petroleum activities but also environment, health and safety, social and fiscal matters.
- 3. Effective management of the state's commercial interests. Where the government's strategy is to have state participation (either via NOC or other arrangements) it will require effective management.
- 4. Effective revenue management. It is important to ensure that the government receives its fair share of revenues and prudent macroeconomic planning is adopted. Avoiding unrealistic expectations and destabilising effects on the national economy requires effective revenue forecasting, collection, allocation (e.g. federal/local) and auditing functions.

Since an FDP is the plan of how a company intends to develop petroleum resources belonging to the country, it is to be expected that the government has an instrumental role in the FDP process. It should therefore be fully informed of all matters relating to how the country's petroleum will be monetised. In most countries it is legally mandated that development activities cannot commence without an approved FDP. The government's role in the various aspects of the FDP process is summarised Table 2.1.

Table 2.1 Government's role in the FDP process Government role Application to the FDP Strategy/Policy and The government should ensure that... Laws - It communicates its long-term vision for the sector to the company, especially where these have not yet formally been adopted. This is of particular importance in frontier countries where formal policies may not yet be in place. - A robust legal framework governs FDPs i.e. clear requirements in laws, regulations and contracts. - It identifies and agrees treatment of ambiguous areas in the legal framework with the operator to avoid potential future disputes. Please refer to: Section 4.1 for further details on the Policy Framework Section 4.2 for further details on the Legal Framework In its regulatory capacity the government would grant approval Regulator of the FDP and should ensure that: The company's proposed plan supports the government's strategies for the sector. - The proposed plan is in accordance with national laws, the petroleum contract and international best practice. The selected development concept ensures the safe. sustainable and optimal development of the country's finite resources. This involves ensuring technical, economic, social and environmental issues and risks are effectively addressed. - The uncertainties and risks are adequately addressed in the FDP. The FDP should also ensure that appropriate contingency measures are in place if risks materialise. - The selected development concept provides maximum benefit to the country. - There is coordination among various government agencies for effective and efficient review of the FDP (see Chapter 5). All future activities, work programmes and budgets for the

Commercial entity

Where the state has an interest in the field (e.g. NOC is a JV partner) the entity should ensure that its commercial interests are protected. For example:

Conduct and review technical assessments of the FDP.

field are consistent with the approved FDP. Effective records are maintained for the field.

- Ensure effective engagement through the management committee.
- Ensure oversight of procurement process costs, intracompany transactions and the implications for the project.
- Be conversant with the contractual terms and conditions e.g. regarding sole risk operations, back-in rights.

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Table 2.1 (Continued)

Government Application to the FDP Revenue The amount, timing and risks to government revenues from management the project should be understood. As part of the approval process the government should undertake economic analysis of different development options to understand which represent maximum revenue generation. This will not be the only criteria considered but should be clearly understood. Ambiguous areas in the fiscal regime should be addressed as can result in value leakage and government revenues not materialising as expected (with serious implications for the national economy). Given scale of revenues and its impact on the national economy, multi-year estimates should be incorporated into institutions responsible for macro-economic planning (e.g. Ministry of Finance, Planning). These should be revised on an ongoing basis, especially if there are subsequent changes to the FDP. Ongoing understanding of (total) revenues from the project. Any significant deviation from future revenues (upside and downside) should be understood. Any variation to an FDP should be supported by an economic assessment on the implications to government revenues.

The specific government agency that performs the roles in Table 2.1 will vary depending on the institutional arrangement and capacity. For example, in some countries the ministry responsible for petroleum performs the first three functions and the Ministry of Finance performs the fourth. In others, the NOC is the lead agency and often performs several functions. Yet still, in other countries, there is often separation of the four functions amongst the sector ministry, an independent regulator, the NOC and the Ministry of Finance. Regardless of who performs the roles they are all required for effective administration of the sector.

Given the importance of the FDP, the government should put measures in place to minimise the risk of regulatory capture. This refers to a situation where the positions taken, and decisions made by regulatory authorities, are unduly influenced by the industries or interests they are charged with regulating. The result is that an agency, charged with acting in the public interest, instead acts in ways that benefit incumbent firms in the industry it is supposed to be regulating. This could be due to several factors including corruption, lack of information or expertise and the inability of government institutions to carry out tasks effectively (e.g. due to insufficient resources such as funds or staff).

2.2 Challenges faced by government officials

As seen in the above table there is a significant role for government in the Field Development Planning process. Government officials in developing countries who are involved in the review of the FDP face several challenges, such as:

- Lack of technical expertise. The FDP encompasses a multitude of specialist areas (e.g. geology, petroleum engineering, environmental, economics) and the government may not have the requisite expertise in-house to review.
- Lack of economic analysis. Often the focus of reviewing an FDP is on the subsurface and engineering aspects and there is a poor understanding of how the country will benefit from the project and the risks to government revenues. The upstream petroleum fiscal regime is very complex and requires sophisticated economic models to understand the overall value from a development and how it is shared between the company and government. In many instances the government does not have economic models in place, nor sufficient expertise to perform economic analysis.
- Involved too late in the process. The government's engagement with the FDP is often when it is submitted for approval. At that point, the government has limited influence on the FDP as critical decisions would have been made 6-18 months earlier in the Appraise and Select phases. If there are areas of misalignment with the company it can result in delays or the FDP not being approved.
- Lack of funding and/or time to procure specialists to review the FDP or conduct independent analysis. This may be as a consequence of late involvement in the formulation of the FDP, poor planning or unrealistic approval timeframes.
- Lack of data. This may be due to absence of clear guidelines to the company on what is required, a compliance issue or poor information-sharing among government agencies.
- Extremely short timeframes to perform its regulatory function. In several countries, the legal framework results in considerably compressed timelines (e.g. 60 days) within which the government needs to indicate to the company if its FDP is approved. Given the complexity and technical nature of the FDP this introduces significant risks to the country as the government is not able to perform a robust review of the FDP. In some jurisdictions, if specific issues are not raised, the FDP is deemed approved.
- Lack of co-ordination among government agencies. Where there are multiple agencies involved there are often differing objectives, duplication of efforts, lack of information sharing and insufficient communication which could undermine a whole government approach to the FDP. Furthermore, this increases the administrative burden for companies resulting in an inefficient process, which leads to delays and erosion of value.

Political interference and pressures. Given the potential revenues and expectations on the positive impact that activities will have on local communities, there is often significant pressure on officials overseeing the sector for approvals so activities can begin. This is often exacerbated during election cycles. In countries with weak regulatory frameworks, technocrats often face the challenge of decisions being made without their input or recommendations being overturned.

2.3 Key issues requiring government attention

Given the challenges described above, government officials should pay particular attention to the following factors when reviewing an FDP:

1) Companies and governments have different drivers – the view on what is "optimal" may not necessarily be the same.

Oil and gas companies are profit-seeking entities whose prime objective is to maximise value to their shareholders. This maxim provides a unifying driver within a company. Internal processes are designed to ensure the deployment of its limited financial and human resources produces the greatest return. In the context of the FDP, the "optimal" development concept is the one that maximises net cash flows to the company. At every "stage-gate", the project must demonstrate business value for it to progress.

Governments on the other hand, are faced with the complex task of maximising value to the country from a combination of the net direct and indirect benefits. The direct benefits would be subject to uncertainty but can be quantified by estimating the timing of government's various revenue streams (which will be dependent on factors such as the fiscal regime, and ultimate recovery of petroleum). The basis for this analysis would be the same as a company undertakes – i.e. understanding net cash flows. The indirect benefits (e.g. local content), which are front and centre in national discourse are, however, difficult to quantify. The potential negative impacts on other sectors (e.g. fisheries, tourism), communities and public health must also be factored in, but these are not easily measurable. Understanding the value from a project is clearly a much more complex undertaking from a country's perspective. This is illustrated in Figure 2.1.

The differing objectives between a company and government exists in all sectors. The high value non-renewable nature of petroleum requires particular attention from government officials to identify areas where the company's efforts to maximise net cash flow are sub-optimal from the country's perspective.

Whilst each situation needs to be assessed on its own merits given the company and country context, some examples where misalignments can occur are:

 Pace of development. A company is likely to pursue the development concept with the earliest first production. Fast-track developments are a special case where the acceleration of appraisal activities and the

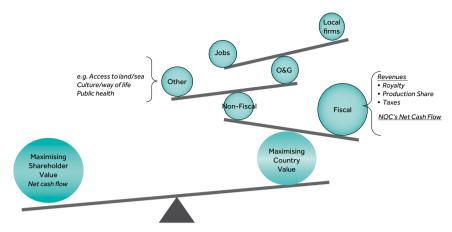


Figure 2.1 Balancing company and country interests

simultaneous execution of detailed engineering introduces additional risks to a project. This presents additional challenges to the government where capacity is limited. On the other hand, it is also possible that a company may prefer a slower pace of development given competing projects in its global portfolio and its resourcing constraints. This may be at odds with a country's pressing need for revenues and benefits from the project.

- Depletion strategy. The company is likely to pursue a depletion strategy that
 maximises production rates. This could ultimately result in lower recovery
 from reservoirs which would be incongruent with many countries' stated
 objective of "maximising economic recovery of petroleum".
- Treatment of associated gas. For example, a company may opt to flare associated gas rather than spend additional money to re-inject or build infrastructure to monetise.
- Local content. A company focused on cost and schedule is unlikely to proactively identify or prioritise areas for local firms to participate in the project (as usually perceived as introducing additional risks and costs).
- Standardisation and procurement strategies. A company managing a
 portfolio of projects is likely to adopt standardised designs to leverage
 economies of scale. The expected benefits being lower costs and efficiency.
 These strategies may however limit the opportunity for local players and
 could also impact ultimate recovery.
- Technology options. The use of innovative versus proven technology may yield significant additional benefits to a company given potential application across the portfolio of its projects. The potentially higher costs and additional risks for a "pilot" project may be sub-optimal from the government's perspective if there is limited future application within the country.

- Costs. Cash-constrained companies may favour solutions that minimise up-front spending.
- Optimising infrastructure based on project vs industry approach. The company would develop infrastructure and export systems with capacity to match a particular project or across a group of projects. The government, on the other hand, would aim to develop infrastructure more holistically, taking other operators into consideration to increase the likelihood that small and marginal fields can be developed. Thus, an industry approach should yield higher benefits to the country as shared infrastructure should result in lower development costs (avoiding capital spend for duplication of facilities and infrastructure) and ideally translate into higher profitability and government revenues.
- Unitised developments, A joint development of one or more fields across multiple blocks and operators could maximise recovery of petroleum and be socio-economically profitable. This, however, increases the complexity, uncertainty, time to production and costs.

The examples above do not necessarily translate to lost value to a country or apply across all countries. However, it is prudent that the government identifies potential areas of misalignment to safeguard the nation's interest. Ongoing engagement with the operator for timely resolution of issues to enable efficient approval of FDP should be beneficial to both parties. Ideally engagements should occur post discovery and leverage existing procedures to avoid inefficiencies and unnecessary administrative burden.

2) Lack of co-ordination amongst government agencies can be a source of value erosion

A petroleum project has touchpoints across multiple arms of government with each operating in accordance with its respective mandate. For example:

- Ministry of petroleum: maximize investment, regulate petroleum operations
- Ministry of finance: maximise government revenue
- Ministry of environment: minimise harm to environment, perform environment and social impact assessments
- Ministry of labour/Social and Community Development: maximise local content
- Ministry of planning: align sector goals with national development goals
- Ministry of public utilities/works and infrastructure/Transport: maximise spill-over effects for broader public benefits such as ports, roads, telecommunications.

Governments are faced with the complex challenge of balancing multiple objectives that span fiscal and non-fiscal elements (see Figure 2.1). In practice,

it is not possible to achieve all these objectives simultaneously. This is especially so if there is limited in-country capacity and experience in the petroleum sector. In addition, with responsibilities related to the FDP discharged across several agencies, there is likely to be different, or sometimes competing, objectives. For example, there is often a mismatch between ambitious plans for local content and the existing capacity of nationals and local firms to be able to feed into a country's first oil and gas development project. Without a shared view among government agencies on what the project can deliver given the specific country and industry situation, it can lead to conflicting communications with the operator. This could result in project delays. These may arise from the operator re-working project details or an FDP failing to adequately address certain issues when submitted.

Governments have the responsibility to ensure a coherent, comprehensive inter-departmental approach by reconciling any potentially conflicting internal objectives and being conscious of potential trade-offs.

Prioritisation will be required to optimise how the FDP can contribute towards national development goals and will require a coordinated effort among government entities.

This will require identification of specific, tangible areas the government would like to see addressed in the project development. Doing so will create a coherent government position in recognition of the constraints and forms the basis for engaging with the operator. It should be noted that recognition of constraints does not mean the government can't be ambitious regarding project expectations – but that it should be realistic.

Furthermore, given the government's relatively short window for reviewing the FDP, if the appropriate government agencies are not involved in a timely manner it can result in delays in approval or an inadequate assessment of the FDP.

Delays caused by misalignment of objectives, poor coordination and inefficiencies among government agencies can have knock-on impacts on first production. This erodes value for the country, and the company.

It is in the best interests of the country that agencies work together in the Appraisal phase (where ability to influence is highest) to identify areas of misalignment, understand trade-offs and develop an integrated government position. It would also enable each agency to plan for a timely review of the FDP, facilitate effective sharing of information and streamline the engagement with the operator (reducing the administrative burden and process inefficiencies).

Inter-agency coordination is therefore critical for a country to preserve and create value from its petroleum resources. It provides clarity to the company on the government's priorities and enables an efficient and effective review of the FDP.

3) The fiscal regime can impact the preferred development concept

The fiscal regime and treatment (or lack thereof) of well-known areas of value leakage can impact the company's preferred development concept. For example,

in a country where there is ring-fencing at the block or corporate level, a multiphased approach to development (versus a full-field development) could result in lower government take. This may arise as the incremental capital spend from future developments defers government revenues.

As previously discussed, the FDP is influenced by a number of factors with economics being one, but not the only consideration. It therefore may not be the overriding motivation behind a phased approach – this can be very effective in de-risking technical factors and would be a prudent course of action for the operator. Nonetheless, in jurisdictions with such ring-fencing in place, it is important the government considers the company's area development strategy, versus only the singular project economics.

This is one example of how the fiscal regime can impact the preferred development concept. Therefore, the government needs to utilise expertise and tools to conduct an appropriate commercial evaluation of the FDP under various concepts. This would ensure a robust assessment of government revenues under various development options to avoid surprises.

Please note this is about understanding the vulnerabilities in the existing fiscal regime, not revisiting the terms of an existing petroleum agreement (contract sanctity) or the robustness of the country's fiscal framework.

4) The country, not the company, faces the majority of exposure to downside risks given an increasingly complex outlook for the sector

As governments approve new oil and gas projects there is a clear recognition that the global pandemic, and the growing momentum towards a lower carbon world, has led to increased uncertainty in the sector's outlook.

Projects that are comparatively high cost and of high carbon intensity would rank low on the global merit order. If conditions change (e.g. lower long-term pricing), those projects would likely be marginal in the future. Whilst a company can adjust to the situation, ultimately by selling such an asset, countries cannot. The risks from stranded assets are thus higher to the country. The government must therefore understand the relative positioning of its assets in the global cost and carbon intensity curves to ascertain its level of exposure. This should be part of the FDP review. In addition, it is in the best interest of the country that the carbon intensity of the various development options is considered, as are plans to ensure the lowest possible GHG footprint for the chosen concept.

Furthermore, government revenue stream from a project is typically weighted towards the later part of an asset's life. This fact, coupled with the changing risk landscape, may lead to a reassessment of how particular issues are treated. For example, the higher likelihood of an asset changing owners, increases the need to ensure that documentation around the FDP is robust. Another issue is decommissioning. In several countries, it is often not considered until well into its productive life – this approach increases the risk that the government may face extremely large, unfunded liabilities in the event of a stranded asset or company bankruptcy.

As part of the FDP review, government officials must carefully consider a project's robustness to a wide range of scenarios given the increasing uncertainty. The value of the project to the country should be stress tested to ensure it is robust to future disruptions.

5) The most significant challenge is often non-technical aspects of an FDP

The socio-political dynamics and pressing need for government revenues increases the complexities that government officials have to manage as part of approving an FDP.

There are often extremely high expectations about the size and timing of benefits the country will receive, especially on the issue of jobs and business opportunities. If the project cannot meet stakeholders' expectations, it can introduce confusion and complicate the approval process. These stakeholders include government institutions (finance, environment etc.), politicians (ruling elite and opposition), local communities, the public, NGOs and the media. In addition, the company may seek to expedite or circumvent the approval process through political interventions.

These aspects, unlike technical issues, are more difficult to manage and resolve. They require significant advanced preparation by the lead government agency in order to manage relationships, expectations and co-ordinate among various stakeholders.