THE MODEL ADOPTED FOR GAS PRODUCTION SHARING AT ROVUMA IS DISADVANTAGEOUS TO THE MOZAMBIAN STATE

By: Gift Essinalo

1. INTRODUCTION

The discoveries of high quantities of hydrocarbons in the Rovuma Basin have led the Government to approve three large Liquefied Natural Gas (LNG) production projects, namely: 1) Coral Sul FLNG; 2) Golfinho/Atum and; 3) Rovuma LNG. These projects, among various benefits, are expected to contribute around US$96 billion to the State’s revenue over their lifetime.

Out the projects listed above, only the Coral Sul FLNG project, whose contract was signed in December 2006, has started the process of gas production and commercialisation. However, the tax contribution of this project may be compromised due to the Government’s disadvantageous contract negotiations with the project concessionaire, Eni.

The contract signed between the concessionaire Eni and the government indicates that the country will have disadvantages in relation to production sharing. At most, the country will be left with about half of the gas allocated to sharing and this can only occur if the project has excellent productivity. In other words, the country will only be able to obtain 55% of the gas-profit if the R-factor, which represents a ratio of accumulated revenues over accumulated expenses, is equal to or greater than 4. However, Law No. 27/2014, of 23 September, which establishes the Specific Regime for Taxation and Tax Benefits of Petroleum Operations (RETBFOP), provides for the collection of 60% of the gas-profit if the R-factor is equal to or greater than 2.5, different from what appears in the contract.

Therefore, the signed contract, in addition to setting a maximum share of the gas-profit below the law by 5pp, in relation to the RETBFOP, requires a substantial effort of the revenues required to reach that level, which makes it almost impossible for the Government to make significant gains from the gas-profit sharing of the South Coral FLNG project.

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1 FLNG stands for Floating Liquefied Natural Gas (they are platforms for the production of liquefied natural gas)
2 LNG stands for Liquefied Natural Gas (also called LNG - Liquefied Natural Gas, natural gas in liquid form)
3 http://www.inp.gov.mz/pt/Politicas-Regime-Legal/Contratos-de-Pesquisa-Producao-de-Hidrocarbonetos
4 Gas/oil profit - part of the gas that is the basis for sharing between the government and the concessionaire. It is derived from total gas minus tax on production and costs.
5 R-factor - is the ratio of revenues and expenses used as a measurement tool to define the share of gas/oil to be allocated to the government and to the concessionaire exploiting the resources under a production sharing contract.
2. THE GAS PRODUCTION SHARING MODEL ESTABLISHED BETWEEN THE STATE AND THE CONCESSIONAIRE IS HARMFUL TO THE STATE

The international standard that dictates the Production Sharing Agreement (PSA)\(^6\) is structured so that a portion of the oil/gas produced is used to recover the costs of the operator and the other portion is divided between the State and the operator.

Authors, such as Matutinovic (2009), consider that countries that adopt the production-sharing regime have greater possibility of production control, by the State, which makes the production curve longer and more stable.\(^7\)

In Mozambique, the production sharing model for gas projects is based on Law No. 27/2014 of 23 September, which determines that the concessionaire recovers the costs incurred in the execution of petroleum operations for remuneration, through ownership over a certain amount of oil produced, and which must take a portion of it for payment of the Oil Production Tax (OPT). After OPT payment, the remainder is called available oil, a volume on which all costs incurred must be recovered. The calculation of cost oil and profit oil shall be done for each calendar year on a cumulative basis.

The regime also determines that in each calendar year, the total recoverable costs, incurred by the concessionaire in respect of petroleum operations in the contract area, is limited to 60% of the available oil. If the recoverable costs exceed the above limit, they must be carried over to the following year until they are fully recovered.

Under these terms, both the State and the concessionaire have rights, in undivided participating shares, regardless of the number of partners in the project and the oil available for sale by the concessionaire, in a given period, unless otherwise decided by the Government.

The figure below illustrates the architecture of the sharing regime adopted for some natural gas exploration projects in the country.

Figure 1: Production sharing mechanism of the FLNG Area 4 project.

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\(^6\) PSA (Production Sharing Agreement) - is a contract signed between the State or an institution representing governmental interests, and an oil company, or consortium of companies, (contractor) for oil/gas exploration and production, through compensation of the parties through a sharing of the oil production.

\(^7\) MATUTINOVIĆ, I., 2009, "Oil and the political economy of energy", Energy Policy, v.37

The share of each of those parties (State and concessionaire) is determined through the criterion of the value of the R-factor (calculated on the last day of each calendar year). This criterion determines that the profit must be shared between the State and the concessionaire of the project according to a variable scale depending on the value of the factor, considering the formula below:

\[
R - \text{Factor} \quad R = \frac{(\text{Cumulative cash inflows})_n}{(\text{Cumulative Capital Expenses})_n}
\]

(2.1)

- Cumulative cash inflows\(_n\) = cumulative cash inflows\(_{n-1}\) + share of concessionaire’s profit oil\(_n\) + concessionaire’s cost oil\(_n\) - operating costs\(_n\)

- Cumulative capital expenditure\(_n\) = cumulative capital expenditure\(_{n-1}\) + research cost\(_n\) + capital expenditure in development and production\(_n\)

Where:
- \(n\) is the year in which production takes place;
- \(n-1\) previous year;
- Concessionaire cost oil is the amount of recoverable costs actually recovered.

**Decision Rule**

The RETBFOP provides that profit oil should be shared based on the following scale:

**Table 1:** Scale of profit-gas sharing between the Government and the Concessionaire, according to RETBFOP.

<table>
<thead>
<tr>
<th>R-Factor</th>
<th>Government Share</th>
<th>Concessionaire Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>(R &lt; 1)</td>
<td>15%</td>
<td>85%</td>
</tr>
<tr>
<td>(1 \leq R &lt; 1.5)</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>(1.5 \leq R &lt; 2)</td>
<td>35%</td>
<td>65%</td>
</tr>
<tr>
<td>(2 \leq R &lt; 2.5)</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>(2.5 \leq R)</td>
<td>60%</td>
<td>40%</td>
</tr>
</tbody>
</table>

*Source: RETBFOP.*

However, without public justification provided, the contract for the South Coral FLNG project presents a different scale and percentages from that proposed in the taxation regime, further extending the scale and reducing the Government’s share. Instead of the scale whose range varies from \(1; 2.5\[, the contract presents a scale of \(1; 4\[, as shown in Table 2, below.

**Table 2:** Gas-profit sharing scale between the Government and the Concessionaire under the Area 4 contract.

<table>
<thead>
<tr>
<th>R-Factor</th>
<th>Government Share</th>
<th>Concessionaire Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>(R &lt; 1)</td>
<td>15%</td>
<td>85%</td>
</tr>
<tr>
<td>(1 \leq R &lt; 2)</td>
<td>25%</td>
<td>75%</td>
</tr>
<tr>
<td>(2 \leq R &lt; 3)</td>
<td>35%</td>
<td>65%</td>
</tr>
<tr>
<td>(3 \leq R &lt; 4)</td>
<td>45%</td>
<td>55%</td>
</tr>
<tr>
<td>(4 \leq R)</td>
<td>55%</td>
<td>45%</td>
</tr>
</tbody>
</table>

*Source: Area 4 Contract.*

The implication of scaling up the R-factor is that for the Government to earn half of the profit oil, the R-factor will have to be equal to or greater than 4, i.e. the cumulative cash inflows will have to be 4 times equal to or greater than the cumulative outgoings. Therefore, the R-factor gas sharing model proposed for the South Coral FLNG project constitutes a weakness for the Government because of the fact that it reduces the possibility of the South Coral FLNG project contributing significantly to the revenues of the State and, consequently, to the growth and socio-economic development of the country.
3. COST RECOVERY DYNAMICS

The gas-profit sharing model signed between the concessionaire of the South Coral FLNG project and the Government substantially decreases the project’s contributions to tax revenues, making the possibility of collecting more than 50% of the gas-profit during the project’s life remote. Allied to this, the problem of recoverable courses and transfer pricing are two of the major factors that may aggravate the situation.

3.1 Recoverable Cost Dynamics

With regard to recoverable costs, it is the responsibility of the regulator, the Instituto Nacional de Petróleo (INP), to ensure the control of costs incurred in the exploration phase, in accordance with Article 5(1) of its Organic Statute, according to which the INP, within the scope of its powers and duties, must observe and monitor the execution of petroleum operations and inspect all assets, records and data held by the operator. The control of costs and other accounting information of the companies is the responsibility of the Tax Authority.

As mentioned above, under the RETBFOP, the concessionaire has the right to recover costs. In the case of the Coral Sul FLNG project, Law 3/2001, of 21 February, the Petroleum Law, in force at the time the respective contracts were signed, is applicable and does not provide terms for the recovery of costs.

The contract states that the concessionaire will bear and pay all the costs in executing the operations, including the amount of any contributions made by the concessionaire to the destabilisation fund as well as the costs of implementing the approved decommissioning plan, recovering up to 75% of the available oil.

<table>
<thead>
<tr>
<th>Type of Costs</th>
<th>Recovery rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development and Production Capital Expenditure</td>
<td>25%</td>
</tr>
<tr>
<td>Research Costs</td>
<td>100%</td>
</tr>
<tr>
<td>Operating Costs</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Adapted from the production sharing contract over area 4 between the government and ENI East Africa.

Audit reports on recoverable costs, prepared and published by INP, regarding the period from 2015 to 2019, present relevant information on the income statement of recoverable costs presented by the companies. However, the information contained in the respective reports as well as the structure used does not allow comparability over the entire period. For example, the reports on the factual findings of the recoverable costs audit of INP for the years 2018 and 2019 do not present details of the types of costs (exploration and development), as presented in the previous reports (2015 to 2017). The reports present information on recoverable costs without Government authorisation, contract costs, affiliate costs, overhead costs and financing costs. Furthermore, they do not distinguish whether the costs relate to the South Coral or the Rovuma LNG project, but only present information on MRM’s costs. This aspect makes it difficult to compare the information contained in the reports and, consequently, makes it difficult for other stakeholders to monitor the sector.

Therefore, in order to overcome this limitation, this analysis combines information on recoverable costs of INPs and the Reports and Opinions of the General State Account of the Administrative Court (RPCGE of the TA).

Based on the information made publicly available by INP as well as the RPCGE of TA, it appears that audit reports on recoverable costs have been audited so far for 5 years, 2015 to 2019.

These reports show that an annual average of $11.3 million, equivalent to 1.9% of the averages declared annually by the concessionaire as recoverable costs, are not eligible for this. In other words, the concessionaire included in the above-mentioned period about 11.3 million in the cost category of recoverable costs when they are not part of this category.

Table 2, below, shows the percentage of annual costs ineligible for recovery.
Table 4: Audited recoverable costs in millions USD (2015 - 2019).

<table>
<thead>
<tr>
<th>TYPE OF RECOVERABLE COSTS</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Declared by the company</td>
<td>After INP audit</td>
<td>% ineligible costs</td>
<td>Declared by the company</td>
<td>After INP audit</td>
</tr>
<tr>
<td>Exploration</td>
<td>115.0</td>
<td>113.6</td>
<td>-1.6</td>
<td>190.2</td>
<td>190.4</td>
</tr>
<tr>
<td>Development and production</td>
<td>437.4</td>
<td>437.0</td>
<td>-1.6</td>
<td>190.2</td>
<td>190.4</td>
</tr>
<tr>
<td>Coral South FLNG</td>
<td>1130.6</td>
<td>668.7</td>
<td>0.0</td>
<td>1130.6</td>
<td>668.7</td>
</tr>
<tr>
<td>Rovuma LNG</td>
<td>552.4</td>
<td>550.6</td>
<td>0.3%</td>
<td>222.6</td>
<td>222.0</td>
</tr>
</tbody>
</table>

Source: Data from TA’s RPCGE and INP’s Recoverable Cost Audit Report - Various years.

Inflation of recoverable costs is a risk factor for profit-gas sharing because the higher the costs to be recovered, the lower the profit-gas, the basis on which the production-sharing mechanism between the government and the concessionaire operates.

For the specific case of Mozambique Rovuma Venture - MRV, the costs recovered by the concessionaire, in the period from 2015 to 2021, stood at an average annual value of US$1,433.6 million, peaking in 2019 at USD3,235.8 million.

Chart 1: MRV’s audited recoverable costs, in USD million (2015-2021).^9

Source: INP Recoverable Cost Audit Reports and TA CGE Report and Opinion.

The issue of recoverable costs is also related to the compliance with the deadline for the referred audits. INP has the duty to audit the accounts within three (3) years. At the end of the period, if the Government does not audit, all recoverable costs presented by the concessionaires may be considered as effective.

3.2 Transfer Pricing Risks

The companies involved in the gas projects mostly operate within the same group, which favours the overestimation of capital (capex) and operational (opex) expenditures and, consequently, the minimisation of revenues payable to the Government: this practice is known as Transfer Pricing (TP).

TP occurs when an entity sells, buys goods and services, or shares resources with an entity with which it has a special relationship, at a price generally different from the market price. The practice of TP has strong implications on the tax base. Hence the need for the government to be alert to such practices. 10

Study conducted by CIP (2019)11 reveals that the shareholder structure of the Coral South FLNG project is conducive to TP practices. The upstream partners, Eni SpA, ExxonMobil Development Africa BV and CNODC Dutch Cooperative fUA, also own Coral FLNG SA12 of the midstream, a company that owns and operates the floating platform FLNG vessel in the liquefaction process, FLNG, as illustrated in figure 2 below.13

9 Note that the reports for 2020 to 2021 are not yet available.
10 In Mozambique, the PT Regime is governed by Decree 70/2017 of 6 December.
12 Coral FLNG SA was a Special Purpose Vehicle (SPV), which is a special purpose vehicle/company.
13 Companies in the oil and gas industry are typically divided into one of three groups: upstream companies focus on the exploration and production of oil and natural gas; midstream companies focus on the transportation and storage of crude oil and natural gas before they are refined and transformed.
The integration of two phases, upstream and midstream, by two companies belonging to the same partners opens scope for cost inflation through transfer pricing, since the structure provides for the payment of a toll to the midstream for liquefaction, even though the same partners operate in both phases.

In addition, to facilitate financing (US$4.7 billion) for the development of the “floating platform” vessel - the FLNG vessel - the Area 4 partners created a separate third company, Coral South FLNG DMCC, registered in Dubai, United Arab Emirates, a Free Trade Area (FTA), with which Mozambique has signed a Double Taxation Treaty since 2004. Coral South FLNG DMCC’s registration in a FTA entitles the company to exemption from withholding taxes on interest and dividends under the Double Taxation Treaty.

Although the country has a law that deals with PT, the complexity of the structure set up, allied to the limited capacity of inspection and monitoring by the Government, weakens the possibility of the project contributing in a significant way to State revenues.

### 3.3 History of Cost Increases

In terms of hydrocarbon exploration, Mozambique has experience in the exploration of natural gas in the Mozambique basin. Like other oil and gas projects which inflate costs during exploration, the aforementioned natural gas exploration project, led by Sasol Petroleum Temane, represents a clear example of cost inflation.

A study conducted by CIP in 2017 shows that Sasol Petroleum Temane inflated the total cost (capital cost + pipeline cost) by more than 60% against the project initially.

#### Table 5: Sasol Project Costs.

<table>
<thead>
<tr>
<th>Cost of Capital (Upstream)</th>
<th>Projection</th>
<th>Effective cost</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>US$317</td>
<td>US$446.5</td>
<td>40%</td>
<td></td>
</tr>
<tr>
<td>Cost of Gas Pipeline</td>
<td>US$404</td>
<td>US$753.5</td>
<td>87%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>US$721</td>
<td>US$1,200</td>
<td>66%</td>
</tr>
</tbody>
</table>

Source: SASOL will Continue to Milk Mozambique, CIP, 2017.

...
Therefore, with cost inflation trend in the oil and gas industry, one of the main variables in determining the scale of production sharing between the Government and the concessionaire, capital expenditure may be higher than expected. This may cause the R-Factor to tend to approach 1, thereby reducing the State’s share because the lower the R-Factor, the lower the share due to the State.

With regard to the liquidated IRPC, there is no clarity on the inclusion of this variable. The variable liquidated IRPC appears in the formula presented in the contract between the concessionaire and the Government, but it is not mentioned in the RETBFOP. In other words, without providing any justification, the Government and the concessionaire included a variable in the formula that forces the R-Factor to the lower limit, thereby reducing the possibility of the State obtaining a significant share, since the lower the R-Factor, the lower the share for the State.

4. COMPARATIVE ANALYSIS OF MOZAMBIQUE’S PRODUCTION SHARING SCHEMES WITH ANGOLA, AZERBAIJAN, AND TUNISIA

In addition to analysing the particularities of the production sharing regime adopted in Mozambique for the project led by Eni, it is necessary to analyse comparatively the terms adopted in the PSA regime in other countries.

A significant part of the PSA in the world specify the division of profit oil based on a sliding scale or, with regard to model contracts, state that this variable is biddable or negotiable up to a certain maximum value. In turn, in Mozambique, the terms defined in relation to the variables mentioned are fixed, non-negotiable. This eliminates the possibility of correcting or improving the terms relating to production sharing throughout the life of the project.

For this analysis, Angola, Azerbaijan, and Tunisia have been chosen for comparison. These countries were chosen because of their experience in adopting production sharing agreements in the hydrocarbon sector and the similarity of existing offshore gas projects.

4.1. Angola

Angola is seen as a flagship country in the use of the production sharing regime. Many contracts are for production sharing of offshore projects whose new reservoirs are in water depths of more than 1200m. These contracts do not involve royalty payments, but provide for a 50% income tax rate.

With regard to production sharing, initially the contracts provided for clauses that gave the State a significant share of the oil-profit, which was reduced over the years. The 1979 PSA with Texaco, for example, allowed for a government share of between 70% and 95%. However, the most recent agreements (1990s) reduced the state’s participation to 40% at the lower limit and 90% at the upper limit.

The determination of production sharing in Angola follows a sliding scale that varies according to the project’s rate of return. The instrument used to define the relative shares of the government (Sonangol) and the concessionaire of the areas is the Internal Rate of Return (IRR), on a sliding scale.

An important fact to note is that both the scale bands (lower and upper limit) and the allocated shares are tradable.

For example, for the case of the contract between Sonangol and the concessionaires CIE Angola block 20 Ltd, Sonangol pesquisa e produção, S.A., BP Exploration Angola (kwanza benguela) Limited and China Sonangol International Holding Limited, signed in 2012, sets a scale ranging from 15% to 40% annual IRR, assigning the state increasing gains relative to scale, ranging from 30% to 90%, as shown in table 6.

Table 6: Profit Share Scale between Sonangol and the concessionaires in Block 20, Angola.

<table>
<thead>
<tr>
<th>Concessionaire’s IRR (Annual)</th>
<th>Sonangol’s share (%)</th>
<th>Concessionaire’s share (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IRR &lt;15%</td>
<td>30</td>
<td>70</td>
</tr>
<tr>
<td>15%&lt;IRR&lt;20%</td>
<td>40</td>
<td>60</td>
</tr>
<tr>
<td>20%&lt;IRR&lt;30%</td>
<td>75</td>
<td>25</td>
</tr>
<tr>
<td>30%&lt;IRR&lt;40%</td>
<td>85</td>
<td>15</td>
</tr>
<tr>
<td>40%&lt;IRR</td>
<td>90</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: PSA contract between Sonangol and Block A concessionaires, Angola.

14 [https://www.oilandgasonline.com/](https://www.oilandgasonline.com/)
15 Oxford Institute for Energy Studies
The 15% to 40% scale was negotiated between the parties considering that the concessionaire recovers cost up to 50% of the oil produced. If in a given year the costs are lower than the volume of oil made available for recovery, the remaining oil should be considered as profit oil, to be used in production sharing.

When comparing the case of Angola with Mozambique it can be noted that there are some similarities in the relevant characteristics of the exploration fields. This is the case of offshore exploration and the depth of the reservoirs, of more than 1200m. However, unlike Angola, in the case of Mozambique the Law provides for fixed, non-negotiable scales for the determination of the oil sharing.

Another important aspect is that the law in Mozambique (the RTEBFOP) stipulates 65% as the limit of available oil for cost recovery, 15 percentage points higher than in Angola. This means that only less than half of the available oil is used as the basis for sharing between the State and the concessionaires, thus reducing the advantages for the country (Mozambique).

The contract for the Area 4 project has an even higher percentage cap for cost recovery, 75%, which means that if the maximum of available oil is used for cost recovery, only 25% of the total available oil will serve as the basis for production sharing.

Now, in addition to the reduced base for production-sharing purposes, the percentages proposed for the Government are also reduced, 15% to 55%. In other words, the maximum that the Government can obtain from oil-profit in the Area 4 project (considering the defined scale) is 55%, about half. This is equivalent to saying that, at most, the Government can obtain 12.5% of the available petroleum and this occurs in extreme cases of profitability of the project (proportion of accumulated gains on expenses), when the gains exceed 4 times the costs incurred. However, the extreme profitability proposed (Factor R => 4) is not common in projects of this type. An example of this is the case of Aramco, one of the most profitable companies in the sector, which projects a rate of return of 16.4%\(^{16}\) (equivalent to an R-Factor of less than 2) for the oil exploration project called SHAHEEN C2C, scheduled to start in 2023.

It should be noted that for the case of Mozambique, although there is a production tax rate (which is not foreseen in Angola’s PSA’s), this is very low for the project under analysis, 2%. In addition, the income tax rate is 18 percentage points (pp) lower than in Angola, and the project enjoys a 25% reduction for the first 8 years, starting in the year of production, which further reduces the gains for the state.

Therefore, from the above-mentioned issue, it can be concluded that Mozambique has negotiated disadvantageous terms for the State in the contract with the concessionaires for the gas exploration project in area 4 of the Rovuma basin, compared to Angola.

### 4.2. Azerbaijan

In the case of Azerbaijan, each contract has the force of law. The concessionaires of the hydrocarbon exploration projects negotiate the conditions of the PSA with the Government (Socar). The latter then passes it on to various government departments, which may implement some changes, and after that the contract has to be ratified by Parliament, with the final consent coming from the President.

Although this is a rather complicated procedure, it does not seem to be a deterrent for the potential investor. PSAs do not require payment of royalties, but concessionaires must pay a tax on profits, between 10% and 35%, depending on the location of the exploration areas. Reinvested profits are exempt from taxation.

For cost recovery, the contracts distinguish between operating and capital costs. The limit of available oil for the recovery of operating costs is 100% while for capital costs, it is 50% to 60% of the remaining available oil.

Profit oil is calculated according to a sliding scale based on the R-Factor. The Government’s share varies between 20% and 90% of profit oil, as shown in Table 7.

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16 https://www.energyintel.com/
Table 7: Profit Oil Sharing Scale of Azerbaijan.

<table>
<thead>
<tr>
<th>R-Factor</th>
<th>Government Share</th>
<th>Concessionaire Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>( R \leq 1.5 )</td>
<td>50%</td>
<td>50%</td>
</tr>
<tr>
<td>( 1.5 \leq R &lt; 2 )</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>( 2 \leq R &lt; 2.25 )</td>
<td>62.5%</td>
<td>37.5%</td>
</tr>
<tr>
<td>( 2.25 \leq R &lt; 2.5 )</td>
<td>65%</td>
<td>35%</td>
</tr>
<tr>
<td>( 2.5 \leq R &lt; 2.75 )</td>
<td>70%</td>
<td>30%</td>
</tr>
<tr>
<td>( 2.75 \leq R &lt; 3 )</td>
<td>75%</td>
<td>25%</td>
</tr>
<tr>
<td>( 3 \leq R &lt; 3.25 )</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>( 3.25 \leq R &lt; 3.5 )</td>
<td>85%</td>
<td>15%</td>
</tr>
<tr>
<td>( R \geq 3.5 )</td>
<td>90%</td>
<td>10%</td>
</tr>
</tbody>
</table>


The country’s PSA features a scale ranging from 1.5 to 3.5 with several short intervals of 0.25 points. The short intervals allow the state to increase by 5pp as the scale varies.

It should be noted that the lower end of the R-Factor scale allows the State to obtain half of the profit oil, and up to 90% if the R-Factor is above 3.5.

In the case of Mozambique’s PES (area 4), the case is the opposite. The country can get just over half of the profit oil (55%) at the upper end of the scale.

Therefore, it can be stated that the terms of production sharing in Mozambique, at least as regards the State’s share of the profit, considering the R-Factor, give greater advantage to the concessionaires.

4.3 Tunisia

Under Tunisia’s hydrocarbons code, production sharing contracts feature a sliding scale that varies according to the R factor.

The profit oil is divided between the Government and the concessionaire on a scale ranging from 1 to 2.3, giving the Government 65% to 82.2% of the profit oil, as shown in table 8.

Table 8: Tunisia’s Profit Oil Sharing Scale.

<table>
<thead>
<tr>
<th>R-Factor</th>
<th>Government Share</th>
<th>Concessionaire Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>( R \leq 1 )</td>
<td>65%</td>
<td>35%</td>
</tr>
<tr>
<td>( 1 &lt; R \leq 1.8 )</td>
<td>70%</td>
<td>30%</td>
</tr>
<tr>
<td>( 1.8 &lt; R \leq 2 )</td>
<td>75%</td>
<td>25%</td>
</tr>
<tr>
<td>( 2 &lt; R \leq 2.3 )</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>( R &gt; 2.3 )</td>
<td>82.5</td>
<td>17.5%</td>
</tr>
</tbody>
</table>

Source: https://www.energyintel.com/

As can be seen from Table 7 above, the share of profit oil that should be allocated to the government is within a range of 65% to 8.5%, i.e., the government receives no less than half of the profit oil, at a minimum. Contrary to Tunisia, in Mozambique for the same R-factor level, the share of profit oil that should be allocated to the government is below 25%.

Another important aspect to bear in mind is that in addition to oil-profit sharing and revenues from sector-specific taxes, Tunisia’s hydrocarbon laws impose an increasing royalty rate (compared to the production tax in Mozambique) that increases as the project becomes more profitable. The rate varies from 2% to 15% as the profitability of the company increases. In the case of Mozambique, the production tax has a fixed rate of 2% for the Coral Sul offshore project.

One of the factors considered in determining both the percentages of profit oil allocated to the government and the scale for determining these percentages is the exploration risks faced by concessionaires. For offshore projects, these risks can be translated into the distance of the project from the coast and the depth of the wells.
It should be noted that the offshore gas exploration projects in Tunisia are located at the same or greater distance as the project under analysis. This is the case with the Hasdrubal Oil and Gas Field project which is located 100Km off the Tunisian coast in the Gulf of Gabes (60m depth), twice as far as the Coral Sul project in Area 4, whose field is located 48.2Km off the coast of Mozambique, in the province of Cabo Delgado (1,500m to 2,600m depth).

Thus, for the above reasons, the share of the profit oil to be allocated to the Government in Mozambique should be higher than that proposed in the contract for area 4.

**CONCLUSION AND RECOMMENDATIONS**

The model for gas production sharing from area 4 of the Rovuma basin in Mozambique determines that after payment of the production tax, the concessionaire recovers the costs incurred in the execution of oil operations. The remainder, referred to as profit gas, serves as the basis for sharing between the concessionaire of the Coral Sul FLNG project and the Government, using the R-Factor as the instrument to define sharing.

The model/regime also determines that, in each calendar year, the total recoverable costs incurred by the concessionaire in respect of oil operations in the contract area is limited to 60% of the available oil.

An analysis of the model for production sharing in area 4, specifically the contract signed between the concession holder of the Coral Sul FLNG project and the Mozambican government, shows that it substantially minimises the project’s contribution to tax revenue, making the possibility of the state collecting its share of the gas during the project’s life remote.

The contract signed between the concessionaire Eni and the government indicates that the country will have disadvantages in relation to production sharing. At most, the country will be left with about half of the gas dedicated to sharing and this can only occur if the project has excellent productivity. In other words, the country will only be able to obtain 55% of the gas profit if the R-factor, which represents a ratio of accumulated revenues to accumulated expenses, is equal to or greater than 4.

Furthermore, it is noted that Mozambique has negotiated disadvantageous terms for the State in the contract with the concessionaires for the gas exploration project in area 4 of the Rovuma basin compared to other countries. This becomes clear when comparing the extensive and non-negotiable scale defined for the R-factor, which ranges from with low percentages for the State in relation to the concessionaire, very extensive compared to countries such as Angola, Tunisia, and Azerbaijan.

It is therefore recommended that the Government:

- The effective control of the elements (recoverable costs and concessionaire’s profit oil) of the gas sharing mechanism in order to avoid any loss of revenue;
- The control of other elements that may constitute a risk of reducing the gas sharing base, such as transfer pricing;
- The definition of contractual terms for future gas exploration projects based on analysis of the exploration conditions and comparative analysis in relation to other countries. These terms should be adjustable in the light of changes in the conditions that led to their definition.