Commentary on excerpts of the speech given by East Timorese Prime Minister Xanana Gusmão on the occasion of the Thomson Reuters Asia Petroleum Lunch in Singapore on June 5, 2013

June 6, 2013

Mr. Gusmão:

And so, in 2011 we released our comprehensive Timor-Leste Strategic Development Plan 2011-2030 to transform our country from a low income nation to a country with upper-middle income levels by 2030, with a population that is secure, educated and healthy.

Comment:

It is quite surprising that a government elected for 5 years should engage the future of the country for 20 years. What about the plans of future administrations? The 2011 plan was released when the government only had one year to go.

Mr. Gusmão:

An important part of this Plan is our economic progress and the development of industries, which will drive our prosperity. The Strategic Development Plan 2011-2030 designates three strategic industries, which will be the key to our future. They are <u>agriculture</u>, tourism and petroleum.

Comment:

<u>Agriculture</u>:
There are about 175,000 hectares of arable land in East Timor. If all was used for rice paddies it would yield 435,000 tons of milled rice at yields similar to Indonesia's. That would be 1 kg per capita per day, for about 4,000 kcal, more than sufficient but of course other crops would have to be developed so this commentary refers only to equivalents. The value of the crop would be about $200 million a year, or $175 per capita which is probably close to the non-petroleum revenue level today. It remains to be explained how agriculture could be a strategic industry in a upper-middle income country.

Mr. Gusmão:

An important part of this Plan is our economic progress and the development of industries, which will drive our prosperity. The Strategic Development Plan 2011-2030 designates three strategic industries, which will be the key to our future. They are agriculture, <u>tourism</u> and petroleum.

Comment:

<u>Tourism</u>:
Bali, one of the largest and most developed tourist destinations in the world and the one East Timor would have to compete with, had a little less than 3 million foreign tourists last year (and 5 million domestic tourists out of an Indonesian population of 250 million. For the sake of comparison with East Timor domestic tourism cannot be counted here) , for a total of 12 million nights, leaving about $2 billion in local payments. This means a peak of about 12,000 foreign tourists arriving and leaving in a single day with an average of 8,000, on about 40 to 60 flights every day. The airport is very large and is currently being rebuilt to a much larger size. The average foreign tourist population is about 40,000 and the local population is 4.2 million (1 for 100) . The gross revenue per capita of local population is therefore less than $500 per year, not counting the fact that most of the profit goes overseas to the owners of the hotels. A large part of the personnel comes from the numerous poor islands of Indonesia.
Transposition to East Timor: considering that the level of wages remains as low as in Bali (about $150 per month, which is not the ideal upper-middle income), so that the destination remains economically attractive, and considering the same level of excellent infrastructure as in Bali and the actual size of the local population in East Timor, revenue would be $500 million per year if the level of maturity were the same as in Bali, which of course would take several decades to reach, notwithstanding the fact that tourists would have to be taken away from the Bali market. It has often been heard that East Timor was targeting so called eco-tourists but that kind of clientele would generate revenue that would be a fraction of what prosperous tourists leave in Bali to spend a week in luxury. Anyway, tourism-generated per capita revenue could not exceed $500 a year and would probably be under $250 for several decades. Plus all infrastructure would have to be built from scratch.

Mr. Gusmão:

An important part of this Plan is our economic progress and the development of industries, which will drive our prosperity. The Strategic Development Plan 2011-2030 designates three strategic industries, which will be the key to our future. They are agriculture, tourism and <u>petroleum</u>.

Comment:

<u>Petroleum</u>:
Petroleum revenue for Bayu Undan will not exceed about $1 billion per year after exhaustion of liquids, and probably less. Sunrise will not return more than $450 million per year for 30 years. Per capita, we are talking of an average of $1,100 per year until 2016 and $400 thereafter for another 30 years. Average is $600 per capita. If all the petroleum is refined locally, add 15%.

Note (September 2016): this comment was written at a time when crude oil was trading at twice the levels of 2016

To summarize at the 2030 horizon: $175 through agriculture, $400 through petroleum, and perhaps $300 through tourism. That's only $875 per year and per capita, not quite "upper-middle income levels".

Mr. Gusmão:

In the Joint Petroleum Development Area, Bayu Undan and Greater Sunrise are the two biggest fields discovered to date. The Bayu Undan field contains recoverable reserves of 500 million barrels of liquids and 4 trillion cubic feet of gas, while the Greater Sunrise field contains recoverable reserves of 7.67 trillion cubic feet of gas and 298 million barrels of condensate.

Comment:

In fact, all other literature states that Bayu Undan has 3.4 tcf of recoverable gas and 380 million barrels of liquids. Sunrise has 5.13 tcf of gas and 226 million barrels of liquids. The Government is inflating the economic quantities by about 25% for Bayu Undan 45% for Sunrise.

In addition, when it comes to the actual quantities at Bayu Undan, natural gas remaining in the reservoir is about 2 tcf and remaining liquids are 80 million barrels, which leads to the government figures being inflated by 165% in revenue.

Only 18% of the Sunrise field is East Timorese, although 50% of profits are to be paid to East Timor, provided the country does not seek invalidation of CMATS.

Mr. Gusmão:

As many resource-based developing countries have done, Timor-Leste has adopted the Petroleum Sharing Contract regime as a means to engage international and national petroleum exploration and production companies to invest in petroleum exploration. Timor-Leste is also fortunate to have resources both offshore and on shore. In addition to petroleum resources, we also have substantial mineral resources. Preliminary data and information indicates that this includes gold, copper, manganese, marble, phosphate, gypsum and iron ore. The exploration of these resources can be undertaken once our draft Mining Law, which is currently subject to public consultation, is signed into law.

Comment:

Mineral resources have been assessed in detail for the last 100 years. There are no mineral resources in economic quantities except for offshore petroleum.

Mr. Gusmão:

The Tasi Mane Project involves three operation clusters along 155 kilometres of Timor- Leste's south coast facing the Timor Sea, which is home to the Timor-Leste Exclusive Area as well as the Joint Petroleum Development Area – both promising oil and gas exploration zones. It will include building a Supply Base in Suai, where logistics and service works will be undertaken and sourced for the petroleum industry. At Suai, major port facilities will be built in phases as multi-purpose and multi-user facilities and the local airport will be rehabilitated.

Comment:

For one thing, the road is not 155 km but over 200. It would cost $2 billion to build, the way it is planned. For another, growth should not be founded on promises, especially in the offshore oil and gas business. As for the "major port facilities", for what traffic are they intended? There is no industrial background on the south coast. A "supply base" would only require a few short berths for offshore supply boats.

For reference, the major ports currently planned in Suai would cover a surface area exceeding 1,100 hectares (3,000 acres), larger than the combined ports of Jakarta, Singapore and Hong Kong, a size that is not really indispensable in the area.

Mr. Gusmão:

Further east along the coast, a refinery and a petrochemical industry will be established at the town of Betano. The Betano refinery will consist of an industrial park where refinery and petrochemical industries will be located along with a petroleum industry administration city. The refinery will provide domestic fuel needs such as diesel, gasoline, jet-fuel and asphalts.

Comment:

There is no port at the refinery in the blueprints. What crude oil material would the refinery refine? If any of the refined products is being exported, what port will be used? If the port is in Suai, there will be a requirement for at least two pipelines to Suai (75 km), one for imports and at least one for exports, and probably several. If production is for the domestic market only, demand is around 1,500 bbl per day today, including fuel for the power plants, and by comparison with other regional economies would never exceed 3 to 4,000 bbl per day once natural gas is used for electrical generation (for reference, current oil consumption in the region, per million population, is: 6,200bbl in Indonesia, 2,800 bbl in the Philippines, 4,000 bbl in Vietnam, 17,000 bbl in Thailand, 22,000 bbl in Malaysia, 46,000 bbl in Australia).

That would be a very small refinery, incapable of producing all the fuels listed by Mr. Gusmão. In the U.S., diesel refining cost and profit in 2013 was $17 per barrel average. The Betano refinery would generate a revenue of $8 to $20 million. Because of the logistical constraints described above, products would most probably cost more than if imported, At 4,100 bbl one of the smallest refinery in the U.S. employs 18 people and covers a surface area of 19 acres. The Betano refinery is reported by the East Timorese government to employ thousands and occupy a surface area of 1,600 acres.

Mr. Gusmão:

At the end of the corridor, and further east at Beaço, the Government has designated a sizeable area for the development of Liquified Natural Gas projects. Several gas fields have been discovered in the nearby Timor Sea, including the Greater Sunrise field, and the Beaço LNG Facility will be the location at which the natural gas pipeline reaches Timor-Leste.

Comment:

Which several gas fields? Chuditch is less than 1 tcf and Kelp Deep is plugged and abandoned after it was found to be uneconomical. All known fields in the area are of small economic impact, except Bayu Undan and Sunrise.

It is astonishing that the three locations chosen for the Tasi Mane Project, namely Suai in the west for the port facilities, Betano in the middle for refineries and Beaco further east for the anticipated LNG plant, were not selected based on careful scouting after adequate geotechnical studies, but where preselected for purely political reasons. Surveys were later conducted, but only to officially confirm the choices, and only in two of the three locations. The long and tedious process used by industrialists in other countries of the world was not applied here.

It is also surprising that all components of the project will not be centralized in one location only, contrary to common sense. The rationale behind building a refinery 75 km from a port although along the shore is lost on most. Likewise, the reason for building an offshore oil and gas support supply base as far as possible from the main future offshore development project in an area of difficult weather is not self-evident when the existing port in the capital city of Dili is closer. Lastly, it is reasonably questionable to build two large port facilities one in Suai and one in Beaco. Is the country so affluent at this time that it can make its infrastructure redundant, let alone the large logistical difficulties created by spreading resources thin?

Mr. Gusmão:

The Tasi Mane Project will establish a dynamic and integrated petroleum industry along our south coast bringing development, jobs and industry to our country. We look forward to working with the private sector on this project, which is so central to our nation's progress.

Comment:

The private sector will not invest if there is no return and none of the components of the close to $10 billion Tasi Mane Project is even remotely likely to produce a profit. Populations will be displaced, huge tracts of arable land will be confiscated, but no profit can reasonably be expected.

Analysis

The government of East Timor is betting all future economic development on just one industry, entirely controlled by just one state owned entity, Timor GAP EP. Timor GAP is managed by thoroughly inexperienced individuals but is seeking control of virtually every large and small project in the country. Since the inception of Timor GAP's predecessor in 2007, the entity has not accomplished a single achievement, except innumerable surveys and studies subcontracted to consulting firms around the world. The entity has been very active though in seeking quasi-monopolies for itself and thwarting virtually all substantial private projects.

During that period the infrastructure has in effect seriously deteriorated, as would clearly appear to a traveller on the roads of the country. The one achievement was the electrical generation and distribution system, despite its huge actual cost, but the project is marred by a shortage of fuel in the short and the long term.

The country's major source of income is just one oil and gas field, Bayu Undan, located in the Timor Sea. Bayu Undan started production in 2004 but income from the field will soon start to taper off and then seriously diminish as the field nears gradual exhaustion. It is predicted that within 3 to 4 years at best revenue will only be one half of today's level and within 12 years will disappear altogether. There is one other small field, Kitan, but the revenue as well as the lifetime of the field are very limited. There is also much hype about other potential fields but to-date nothing definite has been discovered.

The only other available source of income for East Timor is the Greater Sunrise field, which straddles the eastern median boundary line between East Timor and Indonesia. It has been determined that 18% of the field lies within Timorese waters and the balance 82% in a section of Indonesian waters where the seabed belongs to Australia according to treaties signed 40 years ago between the two nations. However, Australia agreed in 2006 to reduce its own production share to only 50%, leaving an enlarged 50% share to East Timor. If the development of the field does not start soon a severe revenue gap will exist for East Timor in about 5 years, leaving the country with no option but to deplete its savings in the so-called Petroleum Fund.

Despite these stark predicaments, East Timor has not only consistently blocked the development of Greater Sunrise, it has also spent a lot of money in so doing.

Where does the country stand today in its fight against the project? Let's try to understand the contractual background:

Australia owns and controls 82% of the Greater Sunrise fields, although its sovereign stake is actually located in Indonesian waters. East Timor owns only 18% of the fields. The allocation was determined and agreed upon in three successive treaties between the two nations since 2002, mostly for geometrical reasons. The boundary dividing the fields is the exact median line (or line of equidistance) between East Timor and Indonesia.

A consortium of four oil and gas corporations (Woodside from Australia, ConocoPhillips, Shell and Osaka Gas) owns the lease to the fields. It has clearly and unambiguously determined the way it wanted to develop the field, as it contractually has the right to, namely by building a floating process and export facility over the fields.

However, East Timor wants the fields to be developed otherwise, claiming that a pipeline to its shores would dramatically jumpstart its economy by creating tens of thousands of jobs. A close examination of those claims, by comparison with other similar developments in close-by Australia, shows that the economic benefits are vastly exaggerated and that at best a few hundreds long time jobs would be created for the local inexperienced population, at the cost for the Treasury of perhaps $10 billion dollars sunk in building specialized infrastructure in a part of the country that is almost uninhabited, to the detriment of the populous areas found on other shores. Although the government is claiming that it seeks a migration of population from the north to the south coasts of the country, such a policy does not make immediate sense to the analyst, notwithstanding the huge social quandaries that such a forced migration would generate.

It is to be kept in mind that the lessees of the Greater Sunrise fields will be investing their own money in the development of the fields and as such are free to invest as they choose, providing of course that their plan generates the most profit for all parties, which it no doubt will. After all, not only are they risking their own

funds, they also can boast some technical and financial experience and expertise, which the other party hardly can, and their opinion should not be taken lightly. Despite these facts, East Timor consistently refuses to authorize the plan, clearly in contravention with the terms of the different treaties and contracts it signed. In the process it certainly hurts the lessees somewhat, but these large oil and gas corporations have other productive fields and can afford to even write off the project. More ominously, East Timor is hurting itself, perhaps in an irreversible fashion, as there will be only that one source of future revenue for them the day the current producing fields will cease to return cash-flow.

In a quite surprising move, the East Timorese pipeline lobby having trouble imposing its views to the lessees, East Timor is now seeking to have the whole fields exclusively reallocated to East Timor, on the basis that the fields are closer to their shores than to Australia. Granted, they are, but they also are closer to Indonesia than they are to East Timor. In fact, about 80% of the fields lie in Indonesian waters but are under the jurisdiction of the Australian seabed by virtue of a series of treaties signed between the two nations decades ago, the earlier one at the time when East Timor was still a Portuguese colony. Pretexting alleged espionage activities by Australia in the days before the last and most important East Timorese-Australian treaty about the Greater Sunrise fields was signed in 2006, the government of East Timor is seeking to have the treaty invalidated by an arbitrator. If it succeeded, it could legally start boundary negotiations with Australia indeed, but it would also see its share of production revenue from Greater Sunrise fall from 50% to 18.1% and it would lose Exclusive Economic Zone (EEZ) jurisdiction over most of its current EEZ.

In a second step, East Timor would have to plead in the International Court of Justice for it to award East Timor areas where the seabed is owned by Australia but the waters by Indonesia, being closer to Indonesia than to East Timor. East Timor has received some advice about how to justify its claim but it is highly improbable in the mind of the analyst that the country could expand its current territory at the expense of Australia and Indonesia, notwithstanding the fact that Australia does not recognize the jurisdiction of the International Court of Justice in matters regarding maritime boundaries and Indonesia never accepted the jurisdiction of the Court. The claim is based on quite frivolous assertions that some islands “weigh” less than others, citing pretty irrelevant international jurisprudence, some of it unverifiable.

We have heard repeated statements not only by the East Timorese government but also in the media, including recently in "The Economist" where an article read that "if the median line were the border, Greater Sunrise and many other fields would fall in Timorese waters". Such a statement is quite surprising from such an estimated and prominent economic publication: it suffices to look at the map to realize that the statement is clearly erroneous.

So, what would likely happen if the pipeline lobby of East Timor continued its unreasonable quest for a pipeline at all costs?

1. **By invalidating the last treaty about Sunrise, CMATS, the country would see its share of revenue from Sunrise fall from 50% to 18.1% and would lose EEZ jurisdiction over the areas where it controls 90% of production (the JPDA)**
2. **The legal process required to garner geographical expansion at the detriment of its two large neighbors, Australia and Indonesia, the former guaranteeing its peace and the latter its economic survival, would take decades at best and would be so fraught with difficulties that it would be very likely to fail, to the embarrassment of the country**
3. **The compensated "weight" line of reasoning used to defend East Timor's claim could easily be reversed, costing the country all its existing fields, including Bayu Undan and Kitan**
4. **The development of the only known future cash generating field would be postponed indefinitely**
5. **The already severely dented international financial and political reputation of the country would be unquestionably destroyed**
6. **The failure of all the highly publicized economic plans could result in civil unrest when the youth of East Timor realizes they were taken for a ride, which very well might result in a violent political coup, if history is to repeat itself**
7. **Having no other source of income and depending economically on its Indonesian neighbor for all the necessities of life, this small nation of 1 million people would have no alternative but to seek economical, if not political, integration within its larger neighbor**

The idea of focusing all economic activity into one single state owned and inefficient entity such as Timor GAP is not novel. In fact it was the norm in newly independent Third World nations 50 years ago, but since the collapse of the Soviet block it has clearly fallen out of fashion. By insisting on such a model of monopolistic development the government of East Timor is historically doomed to failure.

So what new set of policies exits, if the country is to avoid the quagmires it is clearly heading for?

1. **Terminate centralized monopolistic economic planning, as was done elsewhere after the fall of the Iron Curtain**
2. **Terminate the highly publicized but obviously inadequate and un-necessary Tasi Mane project: spending $10 billion to create a thousand $2,500-a-year jobs is clearly not sound economic policy. There is certainly a better use for the money than to sink $10 million for each job created**
3. **Allow the offshore oil and gas fields to be developed by risk taking specialists, according to treaties and contracts freely signed by the country in the last ten years**
4. **Build real infrastructure from scratch where it is needed, mostly roads, water supply and sewage treatment. This endeavor would cost billions of dollars. Only by building a decent infrastructure could the country hope that the economy will develop itself and will attract foreign investment**
5. **Allow foreign investors to deliver cheap fuel to the nation**
6. **Adopt a friendly attitude towards foreign investors and in particular refrain from proffering unverifiable accusations of robbing the country against existing investors**
7. **Adopt a reasonable tax regime, in particular avoiding double taxation as is the case today**
8. **Allow all sorts of industries to find a fertile soil in East Timor, not just the few preselected by the pipeline lobby. History teaches that economic dirigisme does not work well.**

And last, but not least, and for the benefit of all, including international advisors:

- **Have a glimpse of the map before making geographical statements**
- **Carefully read historical treaties and contracts before publishing political or economic opinions**
- **Don't take a fence down until you know the reason why it was put up**
- **Refrain from prejudging issues according to the party you have more sympathy for**
- **The victim of past abuse is not necessarily universally virtuous**