

Myths of oil in the Horn of Africa

By Peter Purcell

There is a myth in the Horn of Africa, widespread and fiercely held across decades, that the region has vast proven oil deposits. This myth, in its various forms, has interested and concerned me for many years, since first encountering it in Ethiopia and Kenya in the 1970s. The myth is not mere amusement; it underwrites several regional conflicts and, with expectations rising in response to recent discoveries onshore and offshore, it has the potential to cause further serious social discord and resource conflict.

The current main drivers for this myth are press announcements by oil exploration companies. Hence, my concern to see Jacka Resources' claim for billion barrel potential in their Somaliland lease, as reported in the August PESA News Resources in *Exploration in Africa – Rifts, Drifts and Myths*.

The countries in the Horn of Africa (HOA) – Ethiopia, Somalia and Kenya – have seen many oil exploration efforts fail over the past 60 years and the recurring cycle of hope and disappointment has made the region fertile ground for the growth of myths about local oil riches.

I use the term 'myth' for a belief system that develops to explain natural events that are inexplicable to the community. In this instance, the failure of the drilling, which was seen to hold the promise of great wealth, is rationalised against the pre-drill expectation by denying the failure and seeking a preferred explanation in myth.

Historically, the most common myth, once ubiquitous worldwide, is that the companies did discover oil but they are waiting for the oil price to go up. In the HOA, proximity to the Middle East has sponsored many local myths, usually involving conspiracies between the Arab countries and the oil companies.

The basic version, common since the 1970s, holds that the companies found big oil fields but were paid by the Saudis and others not to produce them. The oil deposits are imagined as vast underground lakes or oceans, extending beneath the Gulf of Aden to Yemen and beyond, or as mighty rivers that flow out of Africa into Arabia. The companies are said to have been

bribed not to tap into these lakes and rivers because it would halt the flow of oil to Arabia.

The local or national community is cast as the rightful owner of the oil, which is being stolen from them, along with the attendant wealth. The notion of robbery by the Arabs finds a receptive audience in the predominantly Christian societies in Ethiopia and Kenya.

The currently predominant myth is that the HOA is a proven oil province, with vast deposits of oil ready for discovery and development. The new emphasis is less on what was found in the past, and more on the certainty of what will be found in the near future. In essence, the earlier myths of conspiracy and robbery have been re-interpreted more positively to emphasize that the rivers and oceans still flow and, therefore, the promise of wealth remains.

This myth has emerged rapidly in the past decade and is now heard alike from the general public and the highest Government officials. It is regularly presented in national newspapers and repeated by the international press. Regions, or even whole countries, are deemed to be 'oil-rich'.

Nazret.com, a leading Ethiopian news site, describes the country as 'endowed with energy resources such as coal, oil and natural gas', despite there being no known commercial deposits of any. *Four Corners* reported in 2012 that Somalia was believed to be 'floating on an ocean of oil', and that those riches, when tapped, would see the pirates peacefully at home with their families!

The harsh reality of the historical facts is not considered. Prior to Tullow's Ngamia-1 discovery, six decades of exploration and nearly 150 wells in the onshore HOA did not yield a single commercial oil or gas discovery. There has been a handful of discoveries, notably Calub (gas) in Ethiopia, Loperot (oil) in Kenya, and Agfoi (gas) in Somalia. None of these discoveries was deemed commercial and none has been developed.

This did not mean that there was no potential in the HOA, though that conclusion was drawn by many. The drilling density is very low by world standards, and nearly 70% of the wells were drilled over 30 years ago, and probably not optimally located. Tullow's Ngamia discovery was a 'follow-up' to the Loperot discovery

and has highgraded the entire Turkana/Omo rift complex.

The discovery of a major oil province in Uganda's Lake Albert Rift underwrote the recent rapid spread of the myth, and the discoveries in northern Kenyan are seen as further proof. On a rational level, these discoveries justify optimism about potential elsewhere in the East African Rift system. On an irrational level, the myth holds that similar discoveries are imminent everywhere.

There is no doubt that the emergence and spread of the myths draws much from public misunderstanding of the oil exploration process. For example, the fact that companies (or even individuals) return to an area is commonly seen as proof that the companies know the oil is there and have known it all along!

However, my discussions in the HOA countries over recent years, from local villagers to Cabinet Ministers, have made clear how much of the mythology is now driven by unqualified statements by companies about the potential for oil discoveries.

I do not propose to review the potential of Jacka's Odeweyne block. But I would like to urge, in the context of what I have written here, some caution in their proclamations about that potential.

Their block has an east/west trending gravity low, known since the 1950s, and which has been interpreted as a rift basin. It might be. I mapped similar trending gravity lows immediately adjacent in Ethiopia in the 1970s and discussed all in my MSc thesis in 1981. Subsequent seismic surveying by Maxus showed some correlation with Karoo rifting (Permo-Triassic), but certainly not Mesozoic.

Gravity lows in the Horn of Africa are not necessarily prospective basins. Large linear gravity lows in Ethiopia south of the Jacka block appear to be largely intra-basement, possibly linked to Proterozoic rifts. Similar basement-related gravity lows occur in Yemen and are not easily distinguished from the anomalies over the rift basins.

I also question the basis for claiming the Odeweyne anomaly marks half of a rift basin,

Industry news

the other half of which is in Yemen, having produced 2.9 Bbbl since 1987.

Much is made, in many places, of the supposed pre-Gulf of Aden (GOA) continuity between the producing Yemen rifts and the Nogal and other rifts in Somalia. Leaving aside details of the projected alignments (I don't favour the currently popular 'close-fit' in GOA reconstructions), what gets forgotten – or ignored – is that the productive petroleum system in most Yemen rifts is Upper Jurassic-Cretaceous, whereas the main rift episode in the Nogal valley is Tertiary.

I have elsewhere been critical of Range Resources for their claims of 'proven' multi-billion barrel potential in the Nogal Rift, east of the Odeweyne block. Their claim to a 4.1 Bbbl P50 resource, through new operator Horn, is shown on Figure 4 in the PESA News article.

Conoco drilled two wells in the Nogal Rift in the 1989/90. They encountered numerous oil shows, albeit mainly dead oil, and the logs show no clear evidence of moveable oil. The results showed this was a great place for further exploration; they did not guarantee success. Yet Range Resources' prospectus, published a few years ago, spoke of proven producible reserves of 70 MMbbl, as I recall, and looked towards multi-billion barrel potential, with little mention of risk. (The dry hole they drilled in the nearby Darror rift might well have put the risk factor back on the boardroom table!)

Such claims contribute to the mythology in the HOA and the mythology underwrites conflict in many areas, from Gambela in Ethiopia's far southwest, to the Ogaden in southeast Ethiopia and to Puntland in northeast Somalia. There may be no rich oil fields to fight over but conflicts have developed nonetheless.

The border conflict between Somaliland and Puntland over the Nogal Valley is a case in point. The disputed area was within Somaliland when it was a colony, was there

when Somaliland became independent and merged with Somalia in 1968, and when it unilaterally withdrew from that merger in 1994. The border was unchallenged until Puntland declared itself an autonomous state of Somalia in 1998, and claimed sovereignty over land controlled by Sool, Sanaag and Cayn clans.

I suggest it is no co-incidence that the disputed area includes the Nogal Valley, the location of the mythical Conoco discoveries. At the time of drilling, the US Embassy reported concern at the 'giddy optimism' of local Government officials, and warned that failure to produce oil would be seen as a conspiracy or subterfuge of some purpose.

That concern proved correct: the belief today is that Conoco 'capped' the oil wells because of the unrest after the 1991 coup which overthrew Somalia President Siad Barre. The US-led intervention in Somalia, popularised in the movie *Black Hawk Down*, is regularly presented by Western commentators as an attempt to retain ownership of those 'oil fields'. This 'validates' the local mythology, as do the statements by oil companies about 'discoveries' and billion-barrel potential.

Both sides are convinced that great wealth will come from oil discoveries in the Nogal Valley. Major fighting between Puntland and Somaliland armed forces occurred near Las Anod in October 2007, and the situation remains volatile. Exploration in the area is not possible.

Immediately to the south, conflict over the Ogaden region between the Ethiopian Government and the Ogaden National Liberation Front (ONLF) led to the April 2007 attack on an oil survey camp, resulting in the deaths of over 70 soldiers and civilians, including nine Chinese workers. In 2009, a British oil survey member was ambushed and killed.

The conflict in the Ogaden region is centuries old and fundamentally religious, between Muslim

Somalis and the Christian Ethiopian state, but has a complex of secular motivations superimposed, including ownership of the 'oil fields'.

It is now the widely-held view on both sides of the conflict that the Ogaden is rich in natural resources. A Google search for 'resource-rich Ogaden' quickly shows that this is also the prevailing view among government agencies, NGOs, the UN, and bloggers generally: the top hits all refer to the Ogaden's resource richness and vast oil deposits!

The reality is that the Ogaden has no known commercial oil deposits. The Calub gasfield has been considered uncommercial for forty years and remains undeveloped. This is not to say that there might not be undiscovered oil and gas fields in the Ogaden. Like the Nogal area, there are many signs to encourage further work but there is nothing to justify claims of an oil-rich region.

If commercial oil or gas fields can be found and developed, the potential value for the people of these harsh regions is considerable. But until the fighting over imaginary oil riches ceases, the exploration necessary to find any such fields cannot usefully proceed.

The mythology has become too deeply engraved across decades to be easily rewritten, but this does not mean it cannot be influenced. A first step would be for companies operating in these regions to be very careful about public statements of the oil potential of their permits, and to ensure that the risks are mentioned as much as the potential rewards.

Optimistic proclamations might be good for the share price but they can cause great harm abroad. A better balance of caution and optimism in company announcements might lead, in time, to a better-informed host government and public, a weakening of the mythology and a lessening of conflict over mythical fields. ■



ARCHIMEDES
FINANCIAL PLANNING

*"Using a scientifically principled approach
to improve financial buoyancy"*

Noll Moriarty, M.Sc(Hons), CFP®

*Specialising in detailed financial advice
required by resources industry professionals*

Australian & International Clients

www.archimedesfinancial.com.au
3/1315 Gympie Rd, Aspley, QLD. Phone 1300 387 351 or (07) 3863 1846
Archimedes Financial Planning Pty Ltd: AFSL No. 437294 | ABN 68 094 727 152

Need help with your marketing?

Definitive business communication solutions
... for the oil and gas industry



Phone: +61 8 9347 9400
www.resolutions-group.com.au