

SOUTH AFRICAN OIL & GAS ALLIANCE

CHANGING THE SOUTH AFRICAN ENERGY GAME





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On the brink of world class oil and gas discoveries South Africa is ready to join the global top table, with a major role to be played by the South African Oil & Gas Alliance (SAOGA)

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t's not all about cubic feet and billions of dollars for Mthozami Xiphu, Executive Director of SAOGA since he took over leadership of the organisation from Warwick Blyth in February this year. Xiphu is a man who feels passionately that developing the oil and gas resources, onshore and offshore could radically change the dynamics of South African society. The country has achieved massive growth since the cancer of apartheid was excised some 20 years ago: but it pains him to admit that many citizens have yet to feel the full benefits of that growth and of the democracy they now enjoy. They expected better.

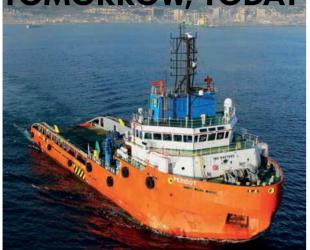
A big part of the solution, he believes, lies in tackling unemployment, inequality and deprivation, between them the main causes of the petty crime and other social ills that plague the poorest parts of the country. "The resources we are sitting on are located in some of the most economically depressed parts of the country. By developing them and growing businesses to support, supply and provide services to the large investors we can look to create a lot of employment, grow skills and lift people out of the cycle of deprivation. That is what excites me!"

Before moving to SAOGA Xiphu had racked up seven years as CEO of the Petroleum Agency of South Africa (PASA), which is the licensing authority under the Department of Mineral Resources. SAOGA has a similar goal in the development of national assets to the benefit of the people, and is also governed by the Mineral and Petroleum Resources Development Act of 2002, however as a representative body for the upstream industry



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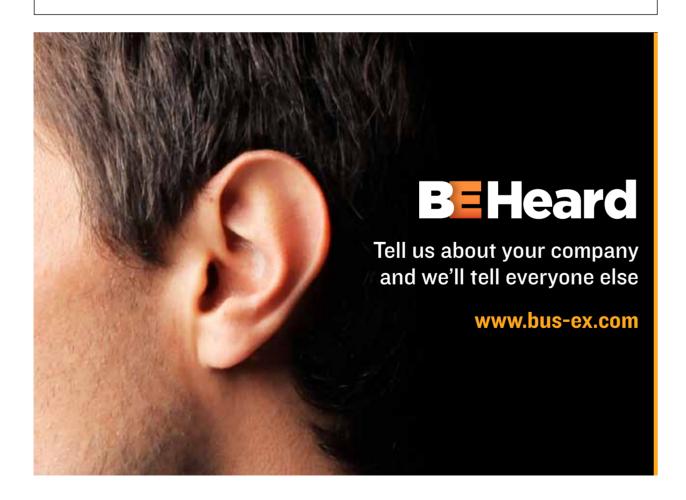
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Oil rig in the bay of Cape Town

one of SAOGA's main aims is to smooth the path for participants seeking to come into South Africa. One of the principal changes we may expect to see following the appointment of the new CEO is closer co-operation between these two key bodies in the twin tasks of winning greater energy security for the country and growing the economy.

Having played a major role in developing the sector over the last decade, he is very excited

about the potential for SAOGA at this particular time. "Our member companies tend to be in rig repairs, fabrication, pipelines and all the supply and support services of the upstream industry in South Africa." The organisation is not a parastatal in the mould of

540 BCF

Estimated gas recoverable from Ibhubesi field

PASA, he explains, because as well as receiving funding from the Department of Trade and Industry, the Western Cape government and the City of Cape Town where it is based, it is substantially funded by its members. "We are a true public-private partnership!"

The reason for its location in this part of South Africa is partly historic, partly because this is where a cluster of upstream supplier companies had developed in the province

in response to upstream growth in West Africa and the establishment of domestic production in Mossel Bay in the late 1980s. It is also home to the port of Saldanha, where it is proposed to establish an industrial development zone (IDZ). Today SAOGA has a

national footprint and focus although the Western Cape remains the de facto centre of upstream supplier activity in South Africa.

SAOGA has never been more relevant, he says. "Over the last twelve months we have seen immense growth in exploration activity in South Africa. We have had no fewer than seven seismic surveys right round our coast. Those surveys will naturally lead to exploration, depending on the outcomes of the analysis, and of course the more exploration the more the chances of discoveries leading to production. We are excited about that." The mission of PASA was to get companies to pick up licences off South African shores: now that majors like ExxonMobil, Total, Shell and Chevron together with a number of smaller players are joining indigenous players like

PetroSA and Sasol, the field is beginning to get busy at last, he says.

Though the results of the seismic surveys he referred to are not yet available, there are encouraging results from surveys along the west coast, notably the Orange Basin, where a proven reserve of 201 billion cubic feet (bcf) of gas has just been confirmed by Sunbird in the Ibhubesi gas field, with a probable 540 bcf recoverable in Phase 2. "Ibhubesi could contain anything from 800 billion to a trillion cubic feet, and they should be producing within the next two years." When it is considered that the Mossel Bay gas field, which feeds the Mossgas gas-toliquids project that has been producing for 20 years and supplies South Africa with five percent of its gas requirements, was floated

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reserves are significant.

However there are far more significant gas reserves onshore, in the form of coal bed methane, mainly in Mpumalanga and Limpopo Provinces. These are located in existing coal mining areas, and the PASA had reported that there could be anything form ten to 20 bcf to be extracted here.

If that sounds exciting, well it is. But it is

on a reserve of one tcf, the current offshore nothing like as exciting as the prospect of shale gas discoveries, and it is these that Mthozami Xiphu thinks have the potential to be a game changer for the South African energy industry. At the moment, there is only a preliminary assessment, albeit an authoritative one. The United States Energy Information Administration made a first pass estimate of a technically recoverable resource of 485 tcf of gas in the Karoo Basin. PASA evaluated this assessment and concluded that, owing to the limited amount of available data in the area, it is impossible to quantify the resource accurately, other than to say that it is potentially very large. It wisely said that additional, modern subsurface information should be obtained through drilling or a geophysical survey. However as Xiphu points out if Mossgas is so important at one tcf, even if the Karoo reserves amount to no more than 20 or 30 tcf their significance would be massive. "If we get a hundred or multiples of a hundred tcf we are looking at a game changer for energy in South Africa over the next ten years!"

Shale gas is certainly present in large amounts, enough to elevate South Africa to fifth in the world's gas producing nations after Mexico, Argentina, the USA and China. And drilling has not even taken place yet though technical cooperation permits (TCPs) for



Aerial view of Cape Town's waterfront

exploration have been obtained by a number of companies such as Falcon Oil & Gas, Sunset Energy, Shell, Anglo Coal and a joint venture between Sasol, Chesapeake and Statoil. He explains why. "The one method for extracting shale gas at the moment is hydraulic fracturing (fracking), and that method is controversial all around the world. Our government has been very cautions. Originally we at SAOGA imposed a moratorium on exploration pending the completion of the licensing round across the Karoo, however the government then followed it up and said everything should be put on hold pending a study to advise on a reasonably safe method of extraction that would be environmentally robust."

The southern Karoo where the shale gas is lodged is a water stressed area, he adds, and the farming community is worried over the water issue given that fracking requires a lot of water. And all stakeholders worry about the potential for contamination of the water supply either by escaping methane or by fracking chemicals. "These are not insurmountable problems if you have the proper regulatory and monitoring systems, and this is what the government is putting together at this time before it allows companies to start drilling in the Karoo."

The United States has achieved energy self sufficiency through its shale gas, and South



Established road, rail, sea and air routes make South Africa an ideal logistics base

Africa could do the same. Xiphu chaired the working group that presented the report on shale gas exploitation to the Department of Mineral Resources in 2012. As part of this he and his team visited Pennsylvania and Texas, then recommended that further specific studies should be carried out. But he'd like to see this done as soon as possible, and exploration to commence. Not only would it be a massive boost to the economy, it could transform the lives of some of its poorest communities as it

"IF WE GET A HUNDRED TCF OF SHALE GAS WE ARE LOOKING AT A GAME CHANGER FOR ENERGY IN SOUTH AFRICA OVER THE NEXT TEN YEARS!"

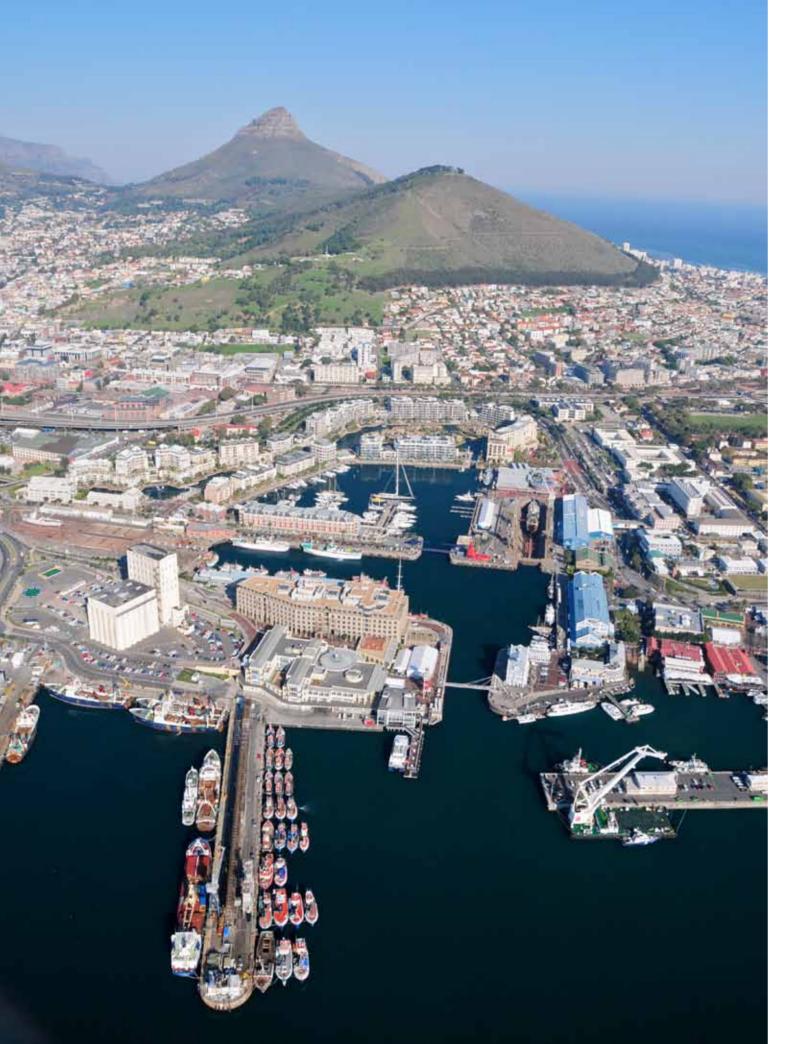
brings in investment and jobs, stimulating the growth of mid-stream and down-stream industries. And these would be skilled jobs, with opportunities for much needed training and development.

Xiphu's vision for SAOGA is to make it a truly national organisation. Though it already has members from Gauteng to the Eastern Cape and KwaZulu Natal, he would like to see more participation from other provincial governments. That may take a little time. In the short term, he is throwing all his energies into achieving the declaration of the Saldanha IDZ and has been having meetings with key organisations such as the Department of Trade & Industry, Transnet and the National Ports Authority to ensure that the declaration happens before the end of July. Saldanha will do for the oil and gas sector what Coega does for the automotive industry in South Africa or

Richards Bay for coal, he says, and he can't wait for it to happen.

Another priority for SAOGA is skills development, he continues. "We cannot advertise South Africa as a hub for upstream production industry in the continent if we don't have the relevant skills. We must encourage skills development, interactive development, intentional institutions and universities. And we must work with the industry to ensure that the people we train are able to get jobs, even at the apprenticeship level if not at permanent employment level, so that they immediately get the experience. Then as exploration takes off, discoveries are made around South Africa and the industry grows and grows in South Africa with discoveries around South Africa we can poise ourselves to be a real hub for the whole of southern Africa!"

After all, South Africa has the deep water



"WE CANNOT ADVERTISE SOUTH AFRICA AS A HUB FOR UPSTREAM PRODUCTION INDUSTRY IN THE CONTINENT IF WE DON'T HAVE THE RELEVANT SKILLS"

ports, the ship repair and fabrication facilities and the infrastructure that the industry needs. It makes sense for a company operating off Tanzania or Mozambique to repair its vessels and FPSOs in nearby South Africa rather than in Singapore or Aberdeen, he points out. It is all there on their doorstep – the only thing that needs building is the skills base specifically related to the oil and gas industries. SAOGA pulls together the training institutions across South Africa and matches them up with its member companies: "For example we are running a programme right now for 20 students to be trained on our west coast and we got Chevron to give financial support to that venture. And we place the trainees with our members so that they get the hands-on experience to improve their learning and output. Take welding. In our industry that is a highly specialised skill run of the mill welders won't do. We see it as part of our remit to ensure that these high level engineering skills are provided as well as just the basic trade qualifications."

South Africa is not really known yet for its oil and gas industry but its advantages are beginning to be realised. "We are not a Nigeria at this stage but even before the shale gas came on the scene we were already attracting interest." His enthusiasm is based on realism, he insists. The industry has a

great future and SAOGA is one of the main driving forces.

What might slow things down? Well he is lobbying for greater certainty and transparency in legislation – this would really leverage the advantage of the IDZs. "If you are having even minor repairs done to high value equipment you still have to put down large sums in security even if you can claim it back later." And some proposed changes to the Minerals and Petroleum Development Act worry him: it is important for companies considering doing business in South Africa to know precisely what the government's percentage carried interest in exploration and production rights will amount to.

While Mthozami Xiphu is entirely behind the principle that the country needs to retain a fair share of the proceeds of its resources, especially for the benefit of its previously disadvantaged citizens, his members and potential members have the right to know in advance exactly what that share will be before they commit to invest. This legal and fiscal certainty will ensure South Africa's attractiveness as an investment destination.

For more information about South African Oil and Gas Alliance visit: www.saoga.org.za



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