



Editorial

Dear reader, welcome to the largest circulation newsletter in the country, the biweekly newsletter that brings to you the exciting developments that reflect the landscape of energy and mining in Mozambique in form of exclusive news, always seeking constructive thoughts to keep informed about the great events within the Energy and Extractive Industry sector.

In this edition, we invite the reader to navigate in the challenges of the exploration of natural gas in the Rovuma basin, specifically in the northern province of Cabo Delgado. In this article the reader will be aware of the challenges that surround the so-called "gas business".

Between 20 and 22 of June in the Brazilian city of Rio Janeiro, took place the Conference of the United Nations on Sustainable Development entitled Rio+20, whose goals were ensuring a renewed political commitment to sustainable development, assess the progress made so far and the gaps that still exist in implementing the outcomes of key meetings on sustainable development, and deal with emerging challenges.

Meanwhile, the country was again invaded by announcement of new discoveries of coal in Tete province and unstoppable fever of discoveries of natural gas in the Rovuma Basin which sets Mozambique in the list of 10 countries with the largest reserves in the world. Hence our emphasis on the continuing debate on this very same subject.

Later, check out the great interview with one of the most renowned scholars of our time, Professor Jenik Radon, who came directly from Columbia University, USA, to provide important lessons to Mozambican people on gas exploration since issues regarding contracts negotiation, exploration to the trade of this precious resource that abounds in the country.

Happy Reading!

GAS EXPLORATION CHALLENGES IN MOZAMBIQUE

The Business of Natural Gas in the Rovuma Basin



Discovering natural gas in the twenty-first century differs much from discoveries in the twentieth century or even earlier times. This kind of operation in the middle of last century was so difficult, especially for the countries of the Third World as it was so hard being a Christian in the days that followed the death of Jesus Christ, characterized by persecution, exterminations, so it was with countries possessing resources such as oil and gas. For the most attentive readers, Iraq is one of the most recent examples that dismiss any comments.

The twentieth century was marked significantly by wars

everywhere and around the corner of the planet, and the Third World of Latin America, South Asia, Africa and even the Middle East were the main victims. In Africa, most countries were struggling to free themselves from colonial domination and those who were already somewhat independent after restarting the 60, had little guidance, expertise, knowledge of how to make good political management that meets the needs of its population and in many cases already were or became victims of neo-colonialism. The result was the

Cont. pág. 2 ➔

PUB.

Posto de Abastecimento Gasotech, Maputo



Comercializamos produtos para os mais diversos segmentos, com qualidade e tecnologia reconhecida.

Estamos presentes no seu dia-a-dia, com produtos petrolíferos e seus derivados, que respondem às suas necessidades de mobilidade, conforto e eficiência. A nossa longa experiência garante a qualidade dos nossos produtos e serviços, que se enquadram nos mais elevados padrões de qualidade, segurança e respeito ambiental.





imposition of unprecedented corruption schemes that conditioned enough and in some cases even determines the exploitation of natural resources.

Mozambique has the happiness of finding gas in the twenty-first century. Because in the last century certainly it would be a problem. Currently, there are advanced technologies nonexistent before, know-how, knowledge of best practices in resource management, market expansion, increased concern about environmental degradation or use of clean and green energy, sustainability and with the predominance of the sustainable development paradigm (ECO 92 and RIO +20) and good governance.

It means happiness not only for that, but above all it is an extraordinary and important opportunity to finance the much desired development of the country and get rid of the foreign debt.

The mere discovery of gas only changes the status of Mozambique as a country, but does not change the situation or conditions of Mozambicans lives. The country is in the list of countries with large gas reserves in the world which constitute an attraction in terms of investments. But the change of Mozambicans lives situation will be the consequence of a sustainable exploration of gas, coal and other resources resulting from good governance and investment in education, health, agriculture, infrastructure construction and other country potentialities such as tourism and fishing, etc..

Although the gas is a special resource, not only as a source of clean and green energy, that is less polluting to the environment in relation to coal and oil, but mainly because its operation involves a different character. The gas exploration in deep waters as the one of Rovuma Basin holds enormous challenges because of the complexity inherent in the process. Ten years ago it was impractical to perform deepwater exploration because there was no knowledge and technology needed for such an exercise. Therefore, there is the challenge of technology, business risk, socio-economic, regulatory and political impacts.

In this article it is important to address the commercial risk that raises and calls for trade challenge inherent in natural gas exploration.

The gas price is falling on the international market, apart from being low,

compared to the oil its extraction in deep waters, transport and processing are very high.

The natural gas business/trade is very different from other resources such as oil, coal, diamonds, gold, and copper among others. Contrary to what occurs with most fossil fuels like coal and oil, easily storable, investment in natural gas depends on the prior negotiation of contracts for long term period between producer and buyer. These characteristics make up techno-economic modes of organization in which service delivery depends, first, the implementation of transmission and distribution, as well as the implemen-

tation of a system of coordination of flows aiming at the adjustment of supply and demand, without endangering the reliability of the system.

This means that natural gas business/trade in Mozambique will depend on present long term contracts for its subsequent exploitation. This implies increased responsibilities, thorough negotiation skills and ability to anticipate the future scenarios or by the government before negotiating contracts, in order not to jeopardize the future generations. So we can say that these future generations are in the hands of politicians and good governance practitioners. ■

PORTUGAL

Gold reserves worth 16,300 million and among the world's largest

The gold reserves of the Banco de Portugal (BoP) amounted to 382.5 tons, and are now worth 16,300 million euros, equivalent to 7.5% of the country debt.



According to figures from the World Gold Council (WGC, an international organization of gold business), based on data from the International Monetary Fund (IMF) gold reserves of Portugal are currently the 14th largest in the world.

The world's largest reserves of gold are the United States (8,134 tons), followed by Germany (3,396 tons). The list includes the WGC reserves the IMF and European Central Bank, which means that, worldwide, only 11 states have more gold than Portugal.

Also according to the WGC, it is in Portugal where gold has more weight in the total monetary reserves: 91.5 percent. In most other countries, the vast majority of reserves are made up of foreign exchange.

In the list of the WGC, there is only one more country where gold reserves are more than 80 percent of cash reserves: Greece (83.3 percent).

The current Portuguese 16,300 million euros gold value has skyrocketed thanks to the appreciation of gold prices (prices in international markets increased fivefold in the last decade).

The international agreements signed by BoP limit the amount of gold that the Bank can sell for years, and there are other legal restrictions that prevent the use of reserves to pay for budget deficits.

However, even if gold could be used directly in state funding, it would have a relatively small impact. Even at a price much higher than it currently sold, the reserves of the BoP worth only 7.5 percent of total government debt (which, according to figures for January, amounting to 218 billion euros).

Using other comparisons, the gold reserves are worth little more than a fifth of the financial assistance program agreed with the 'troika' (78 billion euros). The value of the reserves is also little more than the government plans to spend this year in staff costs of public administration (15,310 million). *Energy Mozambique in Jornal de Negócios* ■

Special Rio+20: Ban Ki-Moon says final document is “ambitious”

After the meeting on Wednesday, the General-Secretary of the United Nations, Ban Ki-Moon, on a revised statement, considered the final document of the Rio +20, as “ambitious”, and “broad and practical “.

According to Ban Ki-Moon, the vision and resolve of diplomacy and foreign affairs changed, and that during this critical Brazilian summit, the final document was closed “in two or three days”. This is remarkable knowing that the same text has been in discussions by other participating countries of the Rio +20, during the last six months. “The final text is a great success for the international community,” said Ban Ki-Moon.

Charged as “less ambitious” by some states, including the European Union, the word is out that the document may change at upcoming meetings of the world leaders.

Ban Ki-moon did not make clear



whether there will be a substantial intervention in the content, but placed responsibility on leaders to give a “political tone” on the commitments, and recalled

their accountability going forward to achieve the real accomplishments of the ideas launched by Rio+20 statement.

“Sustainable development is a concept that is here to stay. The text is only a catalyst of this time change. Now we have a script, we need to follow it”, said the UN General-Secretary.

“The most important is that these recommendations may be implemented without delay, because nature does not negotiate. The document is not the end but the beginning”, he added.

NGOs disappointed with the results of the summit...

Severn Suzuki spoke at Riocentro again. Twenty years after having silenced world leaders on the draft of Eco-92, the Canadian girl, now a mother of 32 years, thickened criticism made by environmentalists on the text produced at the conference, “The Future We Want”. Suzuki is one of the personalities that signed a letter yesterday stating that they do not endorse the text of the Rio conference. The letter was delivered to the UN general-secretary, Ban Ki-moon.

“This statement, unless we have a reinstatement of democracy in it, will be a proof of a collapse in global governance,” Suzuki said at the meeting where the letter “The Rio+20 we do not want” was presented.

NGOs, trade unions, scientists and former heads of state, have pressured current world leaders to make changes to the text or at least to commit to an ambitious plan for the implementation of Rio +20.

The draft declaration “The Future We Want” was approved by diplomatic representatives of 193 UN member states and presented to the Heads of State and Government at the Rio+20 summit. (NN - Margaret Putti)

ALTERNATIVE ENERGY

Vale to invest in wind energy

Vale corporation will enter the wind energy business. The Brazilian mining company and the Australian electric Pacific Hydro formed a joint-venture to build and operate two wind farms in Rio Grande do Norte, Brazil. With an investment estimated at \$650 million, the project will have total installed capacity of approximately 140 megawatts (MW).

The agreement was signed in Rio de Janeiro, in a ceremony that counted with the presence of the Brazilian Minister of Mines and Energy, Edison Lobao, the prime minister of Australia, Julia Gillard, the president of Vale, Murilo Ferreira, and global chief executive of Pacific Hydro, Rob Grant.

The projects already got the required environmental license to install and are expected to come into operation in 2014. The two companies are currently negotiating the purchase of equipment on the market. Therefore, the exact power of the

projects is still to be defined according to the final selected model of the turbines. By the agreement, each company will have 50% of the business.

But the energy will be fully consumed by the Vale for 20 years. The long-term contract signed between the parties will obtain the necessary conditions with the funding of Brazilian Banco Nacional de Desenvolvimento Económico e Social (BNDES). The expectation is that the institution will finance up to 70% of the total value of the project. Source: Value, Business - Rodrigo Polito

Mozambique and the avalanche of discoveries in the Rovuma

Large Natural gas deposits continue being discovered in Mozambique, attracting even more international attention to the country's energy sector and in particular to the Rovuma basin in north of the country, says the Economist Intelligence Unit (EIU).



Tim Rue / Bloomberg

“Industry observers have described the pace and size of discoveries in the area [of the Rovuma basin] as the largest and most significant of recent years,” the EIU said in its latest report on the Mozambican economy.

In the “prolific” river of the province of Cabo Delgado (north), the most recent discoveries were made by Anadarko Petroleum and Italy's ENI.

While Anadarko announced May 15 the discovery of over 20 billion cubic feet gas, increasing by 67% percent

its estimate of reserves in the area, ENI almost simultaneously identified reserves of 40 trillion cubic feet.

Partly due to the increasing attention on the gas of Rovuma, control of Irish Cove Energy, one of Anadarko's partners in the gas field, is being actively contested between Royal Dutch Shell Group and

the Thai state PTT.

Shell has offered 1.7 billion dollars for Cove, 200 million less than the PTT, but may also raise its offer, as is trying to strengthen its presence in the emerging energy sector in East Africa, EIU writes.

One of the industry giants, Shell is also “interested in buying the other ENI operating assets in Mozambique,” it adds.

The “war” for the Cove assets will also

benefit the Mozambican state which recently set a tax on capital gains in an effort to leverage mergers and acquisitions.

The statement of Mozambique as a new energy producer of global dimension involves an investment of close to 68 billion dollars, more than five times the country's GDP in 2011.

An investment of 18 billion dollars, which would be the largest in the history of the country, is being planned by the U.S. oil company Anadarko Petroleum in a unit of natural gas processing and export.

Other major international companies such as Petronas of Malaysia and Sasol of South Africa, are also involved in developing the natural gas industry in the country.

According to the EIU, the Mozambican economy good times are reflected on the activity of the country's largest port in Maputo, which saw traffic increase 30% last year, and it is expected to reach 14 million tons this year.

The volume is estimated at 40 million tones over the next six years, following an ongoing expansion project valued at 1.7 billion dollars.

The EIU forecasts for economic growth in Mozambique point to 8% in 2012 and 8.5% in 2013, slowing from there in 2014 to 8.0% and 7.8% in 2015. (Source: macaclub) ■

PUB.

Dear reader! Now you can share and read all the news of Energy Mozambique Magazine in real time on Facebook.

A Energia Moçambique também está no **Twitter**. Caso prefira, você pode ainda optar por enviar o seu pedido de **Newsletter** para o **energiamoz@status.co.mz** ou **status@status.co.mz**.

VISIT OUR PAGE AND POST YOUR OPINION ON:
<http://www.energiamozambique.co.mz>

Captada nas Profundezas do Monte Malianine NAMAACHA.

Oferida à Humanidade pela natureza.

Rica em sais filtrados lentamente nas entranhas das rochas.

Bom complemento nutricional.

Engarrafada na origem por: MULOSA, Lda
Tel/Fax: 21 309 314
Cell: 84 303 8140
Malianine, NAMAACHA, MOÇAMBIQUE

Preservar da Luz: do Calor e de Odores Fortes

A Fonte da Vida

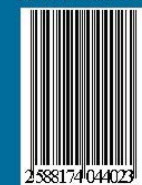
PINGO DO MONTE®



ÁGUA MINERAL SEM GÁS

CONTEÚDO MINERAL:

Ph.....	7.35
Cálcio.....	2.40
Magnésio.....	2.44
Ferro.....	0.29
Sódio.....	50.00
Potássio.....	4.29
Bicarbonatos.....	73.81
Amónio.....	0.04
Nitratos.....	3.72
Cloratos.....	38.60



2588174044023

500ml

Great Interview with Jenik Radon

Jenik Radon, is deputy Professor at Columbia University, School of Public and International Affairs, and Technology of Monterrey, as well as international law, notably on behalf of the public sector in the development of the mining industry. Radon also served as a professor at Stanford University. Jenik served in the UN Global Compact Academic Initiative Taskforce. Currently, Prof Radon advises public authorities and civil society in many developing countries, including Uganda, Afghanistan, Cambodia and Nepal. And in this interview, he advises Mozambique on energy and mining issues through his rich and deep insights.

of all. At the same time, the government must deal in the best way to maximize the value of these assets, but also trade obligations, acting as a regulator at the same time. This sounds like a conflict, and technically it is a conflict but it works when acted with much responsibly. The challenge for government is both in short and long term, because if it is poorly managed, if not secure, these will not help the Mozambique of tomorrow.

Energy Mozambique: What about Civil Society?

JR: The Civil Society in my view has several functions in the process: has the right to know how resources are used for its benefit and the right to know and have access to accurate information. Civil society participation is fundamental since in situations where companies misuse the resources to the point of harming the environment or the health of the population, the civil society becomes the eye and ear of the State because it is spread everywhere, its the population and this must be the support of the State to ensure that companies comply with the law, and they should contribute with their own thoughts because there is no genius in the world who know how to do ev-



A f g h a n i -
s t a n ' s a n d
t h e o u t l o o k
i s s t r o n g . S o
t h e f a t e o f
t h e n a t u r a l
g a s m a r k e t
r e m a i n s a
q u e s t i o n
m a r k , b u t
o n e t h i n g i s
c e r t a i n g a s ,
p r i c e s a r e
f a l l i n g .

Mozambique Energy: What should be the role of the Mozambican government

Energy Mozambique: How would you describe the Natural Gas Market?

Jenik Radon: The natural gas market today lives through a period of uncertainty and turbulence, with something positive trends such as general falling prices. This is of course negative for production countries that have this hydrocarbon because there have been many discoveries of gas reserves in various parts of the world. In the U.S., for example, so much, that this country might well become an exporter of natural gas in the near future. There are gas discoveries in Mozambique, Turkmenistan,

in the context of exploitation of natural resources, knowing that our country is under the strongest appetite from the big sector multinationals?

JR: First it must be said that natural resources in a country like Mozambique are a collective asset, under State custody, representing the people of Mozambique and do not belong to any individual; therefore they must be administered the same way as you manage something that belongs not to yourself but to a collective. So the government has a great entrusted responsibility to develop these resources for the benefit



Technical Sheet

Propriety
STATUS-Consultores de Comunicação

DISP. REG. Nº 5 GABINFO/DEC/2008

Address: Av. 25 de Setembro, nº 1123
Prédio Cardoso
Phone.: +258 21 32 71 16/ 17
Fax: +258 21 32 71 17
Director: Inguila Sevene
Editor: Aunorio Simbine
Collaborators: Nelson Charifo and Alexandre Dundo
Translator: Paulo Pinto
Design: Luis Filipe Tembe
Email: status.energiamoz@status.co.mz
Website: www.energiamocambique.co.mz www.
status.co.mz



everything by himself, so many voices must be heard so that every single resource may be used for the welfare of all.

Energy Mozambique: And the media, what is the role of the Media organizations in this context?

JR: The Media is what we call in Latin sine qua non, ie, without the media we have nothing. Media's role is to provide the information through communication, bridge realities by connecting facts with the people, and reflect and convey public opinion to decision makers and stakeholders. A media assures us that government officials have a positive means of

news: if you look at oil and natural gas it can be said that they have relatively no danger to the environment; of course if things go bad, it negatively affects the environment; in case of oil it can pollute water and soil. Natural gas also, although it is a blessing of nature because it does not affect the environment locally, but if something goes wrong it goes after the air and can cause climate change, particularly if in large quantities. However, the risks of these two are less because today we have highly adapted technologies to handle operations and also disasters. In the case of coal that is situated underground and needs to be extracted, unfortunately there are only bad news; there is no technology to han-



expressing their actions, because a government official is there because people elected him so he should communicate with the people who elected him, and it is the media, the independent media that issues and presents it to us in the form of information. So in my view, the Media is essential to every society.

Mozambique Energy: We discovered huge deposits of coal of various kinds in the center of the country, specifically in Tete, Moatize district what are the consequences of the exploration of this resource in that part of the country.

JR: Let me good news and bad

de it with the necessary perfection. In many coal-producing countries, the dust resulting from this operation pollutes the air we breathe, pollutes the sea, and the production of this resource could have serious and negative consequences not in short, but long-term, over people health and the environment. Hence two things are necessary, in my view: it must first ensure that companies are using the best and the highest standards in their operations. Second, ■

Continued on the next print edition of the Magazine Energy & Extractive Industries Mozambique ...

BRIEFS

Mozambique: Royal Dutch Shell again to extend the deadline for acceptance of a bid by Irish Cove Energy

Royal Dutch Shell Group extended for the third time in five weeks the deadline for acceptance of the offer of 1.1 billion pounds (1.7 billion U.S. dollars) by the Irish Cove Energy, whose shareholders have until July 11 to take a decision, the group said in a statement.

The Cove Energy, whose main asset is a stake of 8.5% in oil block in the Rovuma basin, Mozambique, home of the discovery of large natural gas deposits, is being disputed



by the Royal Dutch Shell group, which presented the first offer – along with the state group PTT Exploration & Production in Thailand.

Scientists discover new mineral in meteorites

In 1969, a fireball exploded in the sky of Mexico and spread thousands of pieces of meteorite over the state of Chihuahua. 40 years later, the Allende meteorite is still a rich source of information about the early evolution of the Solar System.

Recently, scientists at the California Institute of Technology (Caltech) have found in it a new mineral that is believed to be among the oldest in the solar system formed: Oil ■

The Future Requires a Sustainable Development Model

Everyone seems to know what will happen if nothing changes. But does anyone care about choosing the right way?

One of our main mistakes was having grown too much in numbers. In 2050 we will be 9 billion and require more resources. That is, we consume more, because every human being aspires to a better life, and with the emergence of countries like Brazil, China and India, South Africa and Indonesia, more people will mean more money and desire to be more comfortable at home and enjoy commodities ranging from the simple refrigerator to the notebook.

More power is required, because these people will want to commute faster to the workplace. And they will need to drive for comfort, as we can witness while traveling the world that public collective transport solutions are still far from optimal, especially in big cities.

To solve this puzzle there are already identified solutions. But there is still no resolution involving individuals, governments, businesses and organizations, and so the next steps on sustainability of the planet and its viability for the future are still to be established. Has Rio+20 changed anything? We must be positive and hope so, because it is absolutely necessary to believe it does.

With much higher tempera-

tures, climate change, reduced availability of drinking water and a declining biodiversity, our future is not very pleasant.

The responses to climate change should be focused increasingly on reducing emissions of greenhouse gases, mainly to avoid the occurrence of effects that we cannot manage – and address in the best possible way the actual impacts.



The future will rely on each of us to reduce their ecological footprint. We must therefore be increasingly vigilant in our day to day habits. Small gestures like closing the water from the shower, turn off the lights, or choose more energy efficient appliances,

contribute to it; as it can improved services provided by states and companies, some of them not very efficient and costing too much. Just remember that a great amount of the treated water is lost in Mozambique in the supply chain until it gets to the final consumption points.

But it also requires the transition to cleaner energy consumption, better use and better water management, reduction of losses in distribution, and much greater attention to protecting biodiversity.

Without it and everything it offers, humanity is in true danger of survival. The management of earth ecosystems is therefore increasingly necessary. We are talking about adaptation for climate change and carbon mitigation. Perhaps this is why the publication Stern Review on the Economics of Climate Change recommended that governments should develop policies to protect forests and other natural resources that contribute to the regulation of the water cycle, protection of soil and coastal erosion.

Today the nature protected areas of the planet store 15% of earth carbon and sustain our well-being by retaining precious drinking water so necessary to our life.

The increase in investments made through partnerships between governments, communities, nongovernmental organizations and companies can ensure greater protection of essential benefits provided by protected areas. A recent report by the World Bank shows how the tropical protected areas, especially those that are conserved by indigenous populations, lose less forests than other areas.

But these benefits for the climate, biodiversity and society are often overlooked or ignored. As we enter an unprecedented stage of negotiations on climate and biodiversity, it is important not to forget the role of protected areas. *By: Jose Miguel Dentinho* ■

Mozambique Gas reserves may be a key for the country's economic growth

With proper regulation, the huge reserves of oil and gas can change the positioning of the Mozambican economy in the southern region and in the long run alleviate poverty and transform Mozambique into a middle income country, says Jenik Radon, professor at Columbia University's School of International and Public Affairs., USA.

However, according to Radon, to ensure that the country does not miss this "window of opportunity", it will need effective explorations laws, trained officials and political will.

According to Radon, the current regulatory environment in the country regarding the industry is failing in some respects, and the oil draft legislation is not enough.

Asked if the issue of appropriate regulation would not slow the pace of growth of the industry Radon replied: "Time is money, but it is also important to do it right"

Building Skills: Although there was pressure on the country Government to act quickly in face of falling prices and the business volumes, the American professor said that time pressures are deep, but the country needs to provide itself with trained personnel as soon as possible. "The country needs an army of professionals," he said.

And in order to prevent losing trained staff to multinationals, the government will have to ensure competitive compensation in order to keep in the institutions the "best and brightest performers."

In these cases, Radon said, some African countries with which he worked would choose not to train their employees for the simple fear that these would be hired by the private sector which, in turn, would pay ten times more than the government.

Examples: In the eyes of the Columbia University professor, the African country he considers to be a good example of strong "political will" to legalized finances is Ghana: "there people behave like true professionals and want to do things in the most correct way". Afghanistan was also a success as the country believed firmly in the need of transparency in the

extractive industry, policies and laws, and ended up, ironically becoming a model for the world.

Radon also seemed optimistic in the possibility of Mozambique doing it right, but warned of shortage of skilled personnel in the sector and said that the creation of laws and competent political institutions is critical and an indispensable foundation for the country to take maximum advantage of its large reserves.

Legislation: The current draft law of oil and gas



has less than 20 pages, which is not enough to give sufficient clarity about the issues affecting the sector. The role of the government is to regulate the industry, but the mining industry there is also a business whose interests must be balanced with the utmost caution.

The other problem is that multinationals are better equipped in terms of trained staff than the government. The Government needs to be prepared to deal adequately with the pressures of the industry lobbies, so that companies do not start to run the countries energetic the future.

Radon spoke about the need to implement an "objective liability" in terms of environmental and health permits, proper accounting the rights of owners in order to avoid possible social unrest in the near future, such as what has happened in other countries.

"Because change does not happen overnight", Radon said, adding that "In the pursuit of development, the most difficult thing is set and manage expectations. And in this particular case, communication and transparency with the public takes a critical role". ■

What is the place of Mozambique in the debate of energy efficiency in the XXI Century?

The twenty-first century is marked by increasingly bitter debate about the efficiency in the exploration and utilization of energy resources. There are currents that allude that the beginning of the twenty-first century necessarily coincide with the energy revolution.

But how long will the new models of efficiency and energy revolution take to reach developing countries like Mozambique? Which measure must be undertaken in order to follow this “train” towards energy efficiency?

It is important to perceive energy efficiency being above all a question of development and sustainability. Mozambique has considerable availability of energy resources. Being a tropical country, it has plenty of sunlight that can generate solar power, wind can generate wind power and for being a country bathed by the Indian Ocean, it has plenty of potential for generating power from tide and sea current cycles, and also through its water potential it can produce hydropower from dams. On the other hand, in terms of mineral resources, it has significant reserves of natural gas that is a source of cleaner fossil energy, and also one of the largest reserves of coal which is the most polluting fossil fuel.

Despite this huge diversity of energy sources, the country lives a true dilemma that lies between the inability to leverage clean energy sources due to the highly technical and operational costs and the urgent need that the country has to achieve economic development, which seems to have its basis not in the exploration and use of clean energy sources, but in fossil fuels like coal and natural gas which are the resources that currently have higher rates of exploration investments.

The point is that the ap-

proach over energy efficiency, inevitably involves a greater technological and economic progress, conditioning its adoption to rich countries only. The economic structure of Mozambique, at least this century, seems far from reaching the required threshold. This logic underpins the arguments of developing countries giving a different interpretation to the energy efficiency concepts.

Growth of today's developed countries was driven by intensive exploration and use of fossil fuels like coal, taken as the driving force of the Industrial Revolution in the eighteenth century and later in the nineteenth century onwards, and the omnipresent oil considered responsible for the development of the capitalist economy.

Ignacy Sachs (2007), referring to Energy Revolution of the Twenty-first century, suggests that the international community must urgently promote a rigorous and proactive policy to reduce consumption of fossil fuels, maximizing renewable energy production and consumption.

This reduction according to Sachs, should be made regardless of economic costs, which shows that this change implies important economic capabilities. But what does it imply reducing the exploration of fossil fuels to Mozambique, a country which is expected, as mentioned above, to have its development based precisely on the exploration of these fossil fuels? Wouldn't it mean to amputate a legitimate avenue for ambitions of this country? Why not adjust the debate on energy efficiency to the reality in countries like Mozambique?

However, the environmental benefits of an economy relying mainly on clean energy, cannot be ignored.

Environmental sustainability should prevail. But it is important to find a balance in order not to force a way by which some countries may go down without a deep knowledge of the advantages and disadvantages of different possible energy strategies. Mozambique must find urgent responses to answer the main concerns about energy efficiency in the twenty-first century. ■





COAL

It's all organic material found in any combination of bedrock or as a miner product.

METALLURGICAL COAL AND COKE COAL

Are all varieties of bituminous coal convertible to coke for use in the process of steelmaking.

COAL OPERATIONS

All prospecting and exploration operations, development, mining operations, processing operations, transport, export, handling, marketing, disposition and sale of coal, minerals and associated by-products, recovery and closure activities required for the effect.

EXPLORATION AND OPERATIONS RESEARCH

All searching activities, identification and evaluation of mineral deposits of mineral resources through various research methods related to the surface and subsurface geological structure, excavation, drilling and probing, analysis of the physical and chemical properties of mineral resources and examination of environmental and economic viability for the development and exploration of a mineral resource

ENVIRONMENTAL IMPACT ASSESSMENT

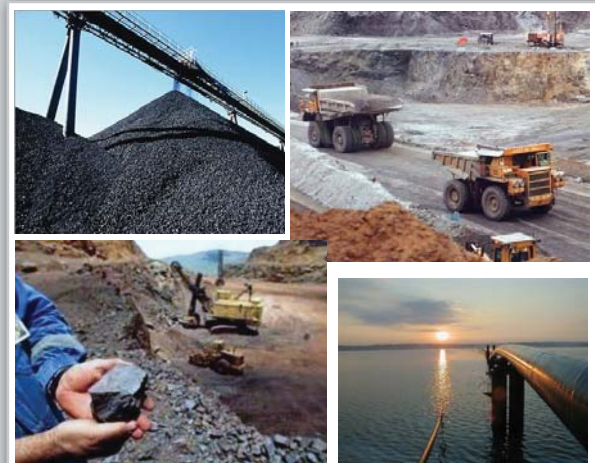
Is it a study carried out as defined in environmental regulation for mining, N.26/2004 approved by Decree of 20 August, and the Regulation on the Procedure for Environmental Impact Assessment approved by Decree No. 45/2005 of 29 September.

INICIATIVA DE TRANSPARÊNCIA NAS INDUSTRIAS EXTRATIVAS (ITIE)

The Extractive Industries Transparency Initiative (EITI) is a coalition of governments, business, civil society groups, investors and international organizations that require to the companies engaged in the exploration and



production of oil, gas and mining industries to publish what they pay and that governments publish what they receive. The EITI focuses on payments made to the governments for oil production, gas and minerals (see www.eitransparency.org). The EITI initiative examines the entire supply chain, from the granting of licenses and contracts to the regulation and monitoring of the operations, management and allocation of revenues and implementation of sustainable development policies (*Mayorga Alba, 2009*)....





Coal Mozambique 2012

First time attending Coal Mozambique? Book and pay before 30 July 2012 and save up to USD 300!

In partnership with:



Unlocking the value and shaping the future of Mozambique's coal industry

17 – 19 September 2012 • Hotel Avenida, Maputo, Mozambique

Your expert leader panel includes insight from:

- **Hon Dr. Esperança Bias**, Minister, Ministry of Mineral Resources
- **Hon Paulo Zucula**, Minister, Ministry of Transportation and Communications
- **Hon Aiuba Cuereneia**, Minister, Ministry of Planning and Development
- **Samuel Buomar**, Permanent Secretary, Government of Tete
- **Dr. Manuel Sithole**, Provincial Director: Mineral Resources & Energy, Government of Tete
- **Ricardo Saad**, Chief Executive Officer, Vale Mozambique Lda
- **Eric Finlayson**, Chief Executive Officer, Rio Tinto Coal Mozambique
- **Antonio Manhiça**, Chief Executive Officer, Empresa Moçambicana de Exploração Mineira SA
- **Casimiro Francisco**, Chairman, AMDCM (Mozambican Coal Development Association)
- **Eduardo Alexandre**, National Director of Mines, Ministry of Mineral Resources
- **Michel Thysbaert**, Chairman, Cobramar Group of Companies
- **Doctor Lin Tu**, Executive Director, Clean Coal Technologies, South Africa
- **Pascoal Bacela**, National Director, Ministry of Energy
- **Carlos Fernandez Alvarez**, Senior Analyst: Gas, Coal and Power, International Energy Agency
- **Ben James**, Managing Director, Baobab Resources plc
- **Cedric Lemarie**, General Manager: Energy, Vale Mozambique Lda
- **Captain T.V Nargundkar**, Head of International Business Development, ESSAR Ports
- **Stephan Morais**, Board Member and Deputy Chief Executive Officer, Banco Nacional de Investimento
- **Marcelina Joel**, Chief Legal Advisor, Ministry of Mineral Resources
- **Vanderlei Marques**, GM: Logistics, Vale Mozambique, Lda
- **Samuel Levy**, Senior Partner, SAL & Caldeira Advogados, Lda
- **Nozomu Sasaki**, General Manager: Mozambique, Mitsubishi Corporation
- **Partha Sengupta**, Vice President: Raw Materials, Tata Steel
- **Manoj Gupta**, Country Head, JSPL Mozambique Minerai, Lda
- **Rosario Muateka**, President and Chairman, CFM
- **Louren Sambo**, Director General, Centro de promocao de Investimentos (CPI)
- **Ajit Singh**, Associate Vice President, Asian Oil Services

Why you should attend

- Gain first hand insight into projects from Mozambique's major producers
- Key developments and innovations into coal infrastructure – Rail, ports and alternative strategies for transporting coal
- Infrastructure financing
- The outlook for regional coal prices – how are demand and supply trends evolving? Where are prices headed?
- Regulatory considerations – strategies for navigating policy and increasing productivity

Bigger conference. Don't miss out on this leading coal event changing the face of Mozambique's coal industry!

NEW! 3 Ministerial keynote addresses

NEW! Join us for a networking cocktail reception

PLUS! Don't miss our interactive masterclass - The new mining law – A legal framework to doing business in Mozambique on the the 19 September 2012

Plus! Don't miss the evening masterclass on the 17 September - Macro economic growth in Mozambique and how coal impacts business designed for investors, lawyers, Central bank, commercial banks, Government and mine stakeholders on what mitigating measures need to be implemented to avoid negative impact and how to attract local and international financing.

Coal Mozambique 2012 ... If you are involved in current or upcoming coal projects in Mozambique , there is nowhere more important for you to be

1. **Strategic insight into the latest project updates** – gain exclusive insights into projects from major producers
2. **Latest regulatory and policy updates** – new mining law, resettlement strategy, recent developments in the mega-project law and regulations
3. **Extended networking opportunities** – The leading Mozambique event where global experts and regional leaders meet to discuss the latest coal mining projects, infrastructure developments, transport logistics and innovations, considerations for infrastructure financing and the new Mining Law and policies affecting the region

Associate Sponsors:



Exhibitors:

Lanyard sponsor:



Don't miss out, Register Today: www.coalproductionmoz.com

Post Conference Masterclass: Wednesday 19 September 2012

The new mining law – A legal framework to doing business in Mozambique

This masterclass is designed to introduce you to the basic fundamentals and new updates to the legal framework for mining in Mozambique and addresses the following:

- **Mining** – the different mining titles, how they are granted and the related reporting obligations, including prospective changes in the Mining Law
- **Environment** – the different levels of compliance as they relate to different levels of activity
- **Tax** – review of mining specific taxes (surface tax and royalties), the general tax regime and the use of bilateral treaties against double taxation
- **Land** – the need to acquire land rights before mining activity can start
- **Labour** – general introduction with a focus on special, more favourable rules for the employment of foreign skilled labour
- **PPP (Mega Projects Law)** – How does this relatively new law and its regulations affect mining investment
- **Foreign Exchange** – highlights of the foreign exchange law, including rules on remittance of sale proceeds and repatriation of profits



Samuel Levy, Senior Partner, SAL & Caldeira Advogados, Lda

About your workshop leader:

Samuel Levy handles SAL & Caldeira's clients in relation to oil & gas and mining, among other matters. He has advised clients in respect of most of the recent mining contracts signed with the Government of Mozambique. He is also involved in legal reform in the sector, having participated in the drafting of regulations relating to installation licensing, environmental licensing, special labor regulations, special regulations for foreign labor and the mega projects law. Mr. Levy helped found both the Mozambican Association of International Petroleum Operators (AMOPI) and the Chamber of Mines of Mozambique (CMM). He is admitted to practice in both Mozambique and New York."

DOWNLOAD CENTRE

Keep abreast of all the latest industry developments in the lead up to the conference.

Join our global series speakers online for:

- interviews
- podcasts
- white papers
- and much more...

www.coalproductionmoz.com



Join our Coal Mozambique LinkedIn group

Stay up-to date with industry and conference developments by joining our Coal Mozambique community.

See www.coalproductionmoz.com for further details.

What IQPC's global attendees say about our mining series

"Highly recommended if you need an informative, high level snapshot of the extractive coal game in Mozambique"
Senior Advisor External Relations, Rio Tinto

"A good networking opportunity with current role players in the industry"
Group Marketing Manager, Set Point

"Very good well organised"
General Maanger Surface Mining, Sandvik Mining and Construction

"Very informative – good networking opportunity"
Senior Consultant, Hatch Associations

"Excellent presentations and knowledge"
Engineering Manager, BHP Billiton

"Well presented technical information"
Technical Planning Manager, Impala Platinum

"Highly informative sessions and an eye opener in some cases"
Management Consultant, Hatch

Register your conference ticket online at
www.coalproductionmoz.com

Media Partners:

