

# ENERGY FOR ALL OR ENERGY FOR THE FEW?

**The Case of the South Africa-Mozambique Gas Pipeline**



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# CONTENTS

	page
<b>Introduction</b>	<b>1</b>
<b>Section One: Background as to how this initiative emerged</b>	<b>3</b>
<b>Section Two: Who is involved in building the pipeline?</b>	<b>4</b>
<b>Section Three: What is the motivation for the pipeline?</b>	<b>5</b>
<b>Section Four: What are the development issues related to the pipeline?</b>	<b>7</b>
<b>Section Five: Are there alternatives?</b>	<b>9</b>

# Introduction

**F**or years South Africa has relied on coal as a source of energy. Across the country we find massive coal mines. Electric power plants make use of coal. In addition, many households use coal as their main energy source. Yet, increasingly there have been complaints about coal. In particular, environmentalists have argued that coal contributes to air pollution. As a result, currently there is a major effort under way to reduce our reliance on coal. One of the most important initiatives in this regard is the gas pipeline which is being constructed from Mozambique to Secunda in Mpumalanga. This pipeline is one of the biggest infrastructure investments we have seen in South Africa since 1994. Some people view this pipeline as a major step forward for development in the entire southern African region. Others argue that the pipeline is a bad investment which will not benefit the majority of the people on the ground. This booklet will look at this gas pipeline and the debates around it.

**The booklet is divided into four sections**

**Section One will provide the background to the pipeline initiative**

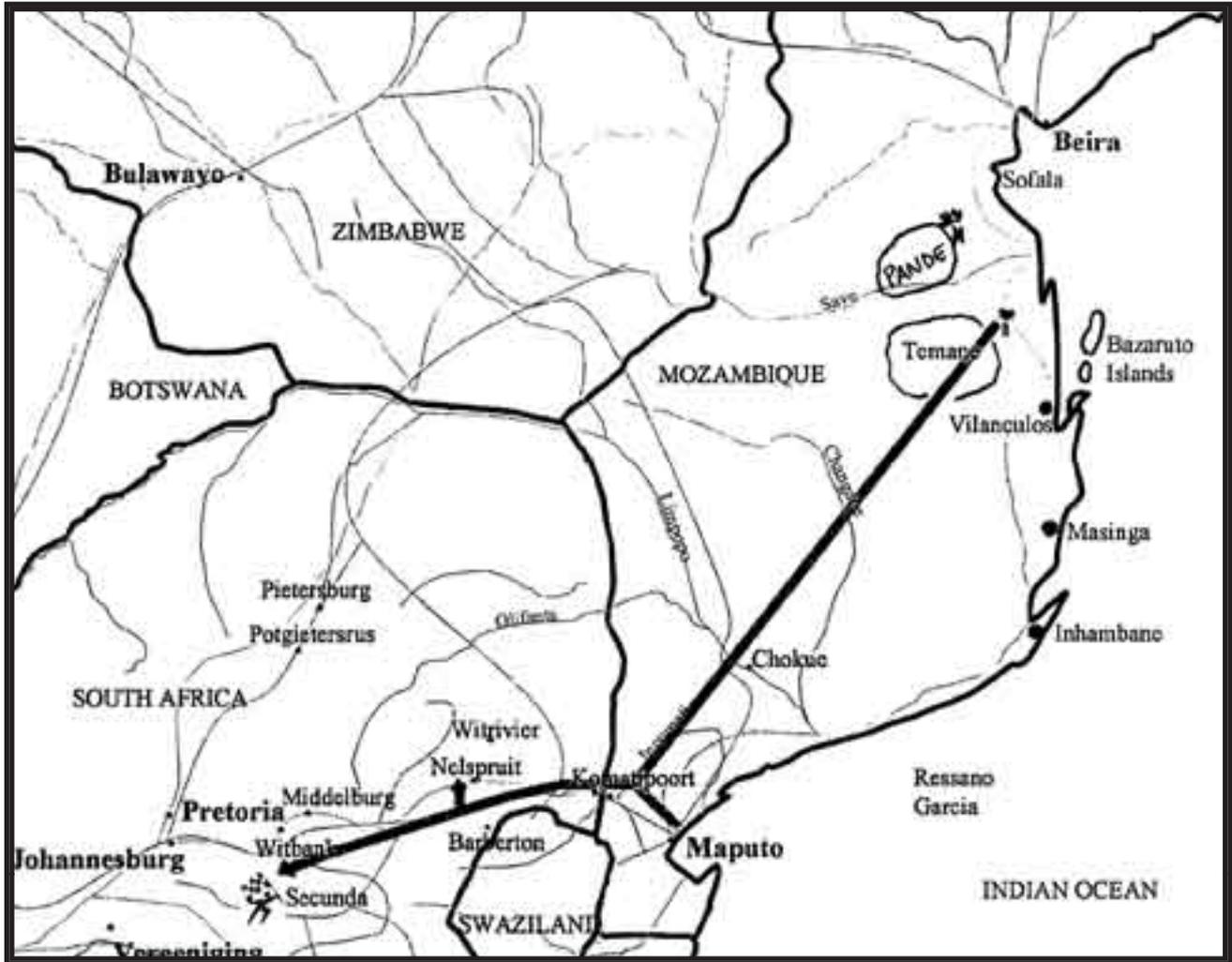
**Section Two will outline who is involved in the initiative**

**Section Three will present the main motivations for the pipeline**

**Section Four will discuss key development issues which emerge from this initiative**

**Section Five will look at alternative approaches to energy.**





Map showing pipe line from Temane in Northern Mozambique to Secunda in South Africa.



# 1

## Background as to how this initiative emerged



**T**he gas fields of Mozambique have been the target of energy companies ever since the Temane fields were discovered by US-based Gulf Oil in 1956. Six years later, Gulf also uncovered the Pande fields. After their discovery Russian companies as well as Mozambican state companies had plans to extract the gas. But little was done for decades.

In recent years a number of multinational energy companies have become involved in further exploration for gas in Mozambique. These included US based companies Enron (now closed) and Arco, Elf from France and SASOL (South African Coal, Oil and Gas Corporation) from South Africa. However, in the late 1990s, SASOL began to take a stronger initiative toward gaining control Mozambique's gas fields. In 2000 they bought up Enron's rights to the Pande gas fields. In May of 2000,

they took over the right to the Temane fields from ARCO and Zarara, an energy company based in the United Arab Emirates. SASOL paid about R300 million for the rights to these gas deposits. SASOL intended to build a pipeline from Mozambique into South Africa and sell the gas to customers in both countries. This initiative is known as the SASOL Natural Gas Project or SNGP.

The construction of the pipeline began in May 2002. It will run from Pande and Temane some 531 kilometres to the South African border. The pipeline will then extend for another 334 kilometres to Secunda, a centre of SASOL's gas distribution network. The pipeline is to be buried at least one metre underground all along the route. The first gas will be taken out of the pipeline at Secunda in early 2004.



## 2 Who is involved in building the pipeline?



**T**here are many aspects to the building of this pipeline and many companies are involved. SASOL is the overall driver of the project. However, they have contracted out much of the work of making the pipeline. Below is a list of some of the components of the pipeline project and which companies are involved:

\* Engineering, design, and procurement for the pipeline (value, R1,7 bn) will be done by a consortium of companies: Grinaker-LTA (South Africa), McConnell Dowell (Australia) and CCIC (Lebanon). These companies have formed an alliance with a number of black economic empowerment initiatives including Ulusha Projects (Mpumalanga) and Zainveste and Focus 21 (Mozambique).

\* Engineering, design, and procurement for the central processing facility in Mozambique: Foster Wheeler (overall cost of the Central Processing Facility is R3 billion)

\* Pipeline supply (value R1,2 bn) Europipe (Europe) and Itochu (Japan)

\* Pipeline manufacturing: Hall Longmore (South Africa), Kawasaki (Japan) and Salzgitter (Germany)

\* Altogether 25-35% of the money invested in the gas fields will go to African-based companies. The rest will go to European, North American and Asian firms.

The overall cost of the pipeline is estimated at R14 billion.

### Who is SASOL

SASOL was formed by the South African government in 1950. Throughout the apartheid era, one of SASOL's main aims was to increase local energy supplies so that the apartheid regime would be less dependent on imported petroleum. This was seen as increasingly important when sanctions against South Africa were intensified and supplies of oil from the Middle East began to dry up.

Sasol makes a staggering R26 million operating profit per day. This amounts to R3000 per second.



# 3 What is the motivation for the pipeline?



**T**here are a number of arguments for constructing this pipeline. The most frequent argument in favour of the pipeline is that South Africa currently relies heavily on coal for energy production. Coal has several drawbacks. Firstly, mining coal is destructive to the environment. Typically coal mining is done in massive pits which are unsightly and disturb the general environment of a community where they are located. Secondly, the burning of coal contributes heavily to air pollution. Thirdly, burning coal in households presents many health hazards. Prolonged exposure to burning coal may lead to respiratory disease. Also, coal-burning stoves can often be a source of fires, particularly in informal settlements. For these

reasons, many people see natural gas as a much cleaner and safer alternative.

There are also economic arguments for gas. For large-scale industry, gas could prove to be a much cheaper source of energy than coal. For example, it has been argued that the Saldanha Steel plant, located in the Western Cape, could reverse its losses if it were able to use gas instead of coal as an energy source. From the Mozambican side, there is also an economic argument. Mozambique is one of the poorest countries in the world. The foreign investment into the pipeline is estimated to be equal to 20% of the value of everything produced in the Mozambican



economy in a year (annual GDP). Over the current 25-year life span of the project, it has been estimated that the Mozambican government will earn about R210 billion for selling the gas to SASOL.

There will also be benefits for SASOL and for the South African government. The projections are that SASOL will earn profits of R180 billion over the 25 years, with the government bringing in a smaller amount of R32 billion.

Then there is the question of global trends. Currently, natural gas comprises about 15-20% of global energy supplies. Yet in South Africa, the percentage is only 2% and in sub-Saharan Africa it is 5%. Increasing gas usage

would bring the region more in line with the international patterns of sourcing energy.

Lastly, there is the question of job creation. Like South Africa, Mozambique has a high rate of unemployment. It is estimated that the construction of the pipeline will create some 3 000 temporary jobs and somewhere between 200 and 600 permanent jobs.



**PRIVATIZING GOVERNMENT**



# 4

## What are the development issues related to the pipeline?

**T**here are a number of issues which have emerged in the discussion about the pipeline.

### **1. Question One: who should control the resources of the region?**

Energy is essential for any country's development. Yet, there is a concern that initiatives like the pipeline hand over control and planning of Mozambique's energy resources to a group of multinational corporations who have little concern for the specific needs of Mozambique or the Mozambican people. In the plan that has been developed for the next 25 years of the pipeline, there is little to suggest that Mozambicans will gain the skills or resources to operate the pipeline. The Mozambican government will earn tax revenue from the operations of the pipeline and royalties for selling gas. But the control and management of the resources will remain in the hands of a large foreign-owned corporation, in this case, SASOL.

Even in the construction phase of the pipeline, the main contractors are foreign firms.

### **Question 2: Who will benefit from the gas?**

Gas could be a cheaper and cleaner source of energy than coal. But the question is: who will benefit from this gas? At present SASOL has an existing infrastructure of 1 500 km of piping which supplies about 700 commercial and industrial consumers in South Africa. This system makes use of synthetic gas or coal. The natural gas from the pipeline would replace the synthetic gas and coal for these commercial and industrial users.

SASOL has undertaken to explore the possibilities of supplying gas to low-income households. But there are no definite plans in this regard. Moreover, in Mozambique and South Africa there are few households in townships or rural areas which are equipped for using gas.

There is the further question of the financing of gas provision. SASOL operates through iGas a state-owned enterprise. Most state-owned enterprises are operating on the basis of cost recovery. This means that consumers must pay the full cost of the services which they use. In the case of gas, this would likely mean that low-income consumers would have to pay SASOL for installing the pipes as well as for the usage of the gas. This type of costing is likely to make the gas unaffordable for most low-income households.

A smaller side effect of the pipeline is the estimated 90 to 100 households in Mozambique that will be displaced because of the pipeline. SASOL has pledged to carry out a human resettlement plan "in line with the guidelines of the World Bank and International Finance Corporation" to deal with the displacement of these people.

### **Question 3: How effective will the project be in creating jobs?**

With an estimated cost of R14 billion, the pipeline will create about 600 permanent jobs. This means that creating one job costs about R20 000 000. Given the severity of the unemployment problem in both South Africa and Mozambique, the job creation aspect of the project raises serious questions. At a project level, there is the question of whether



the pipeline construction and operation could not be structured in a manner that would make less use of technology and provide more employment opportunities.

Then there is the problem of job losses. While 600 permanent jobs are being created, there will be some 1 000 permanent jobs lost at SASOL mining. These job losses will largely be due to the shift from coal to gas. Thus, overall the gas project will show a net loss of permanent jobs of about 400! This is what some economists refer to as jobloss growth.

#### **Question 4: What should be the investment priorities of state-owned enterprises?**

The lack of job creation in such a large investment raises a much bigger question about the investment priorities of state-owned enterprises like SASOL. Should the main priority of these state-owned enterprises be to provide cheap energy to make South African and Mozambican-based business operations better able to compete in the global markets? Clearly tapping into the Mozambican gas fields presents an opportunity for both countries to be able to provide a cleaner and cheaper source of energy to millions of poor citizens. If this were the priority of the project, perhaps it could be a very positive form of investment. But providing cheap gas to households is a very minor part of the plans of this project – one which may never even happen at all. The main aim of the project is to make more profits for SASOL and profits are far more likely to come from supplying large industry than township and rural houses.

If SASOL is a state-owned enterprise, to whom should it be accountable in its choice of investments? State-owned companies more and more frequently are operating like private businesses where their profit margins are the priority – not the service they provide to the

taxpayers who have sustained their existence over the years.

Today, SASOL is one of the largest companies in South Africa. In the financial year of 2001, the total sales by SASOL amounted to R41 billion.

Like other South African energy companies such as Eskom, SASOL is a major energy company across Africa and also operates in other parts of the world as well. For the most part, these initiatives are undertaken with a profit-making motive.

### **Removing land mines for gas**

One benefit of the gas pipeline will be the removal of land mines along the 500 km pipeline corridor in Mozambique. These mines were planted during the war between Renamo and the Mozambican government which lasted from the early 1980s to the early 1990s. The question one might ask is: why did it take a gas pipeline to remove these mines? Was the fact that they threatened the lives of local people not a strong enough motivation to get rid of the mines?

### **Gas pipelines and Privatisation**

Apart from the Mozambican fields, there are at least two other local fields which are being explored at the moment. Firstly there is the Ibhuhhesi field which is located off the West Coast of the Western Cape. This is being explored by a consortium which includes the black economic empowerment grouping Mvelaphanda Holdings as well as US-based companies Forest Oil and Anschutz. Secondly, there are the Namibian fields. These were originally given over to the multinational company Shell. They conducted a feasibility study for building a pipeline to the Western Cape and building a gas-fired electricity plant in Cape Town. The plans were to make this a privately owned electricity supplier for the city of Cape Town. This would have replaced the present electricity suppliers – the municipality and Eskom. In this case, the handing over of gas reserves to a private company would have paved the way for the privatisation of electricity – doubtless leading to higher prices for consumers. In mid-2002 Shell pulled out of the Namibian fields, arguing that they did not contain enough gas to make them profitable in the long run. But privately owned gas may yet be used as a method for privatising electricity supply in the Western Cape and other parts of the country as well.



# 5

## Are there Alternatives?



**C**ontinuing to rely on coal as a major energy source is not viable. Coal leads to environmental destruction and health problems for consumers. Gas could be a cheap alternative if the SNGP were targeted at providing affordable energy to low income consumers. At present the SNGP is designed solely for industrial and commercial users. Any access to gas for low income consumers will merely be part of a “trickle down” effect of the project. To target low income consumers would ultimately cut into SASOL’s profits since it would involve constructing more infrastructure to reach townships and rural areas. As long as profits are the main aim of energy provision, industrial and commercial users are most likely to reap the benefits.

Another approach would involve using renewable forms of energy such as solar or wind power, both of which are possible options in southern Africa. However, in many instances renewable forms of energy do not offer as much long term profit as gas, coal or petroleum. With renewable forms of energy the main expenditure is on the infrastructure. For example, once a household solar energy system is in place, the owner need not pay for sunlight. By contrast with non-renewable forms of energy like gas or coal, users have to pay for each unit that is consumed.

Posing alternatives to the planned pipeline ultimately involves examining the role of the state in the energy sector. Energy access can only become a reality for the majority if the state ensure that prices are set at an affordable rate. This would mean either the state becomes an energy provider or subsidises the cost to the consumer. In either case, this is not in line with the dominant thinking internationally which pushes for private sector involvement and a profit orientation. But as long as energy is provided with the aim of maximising profits, low income users will be cut out of the system. And in countries like Mozambique and South Africa the vast majority of households are poor and millions of people are unemployed. As long as multinational corporations control energy provision, these people will be left with no alternative but to buy coal, cut down trees or burn paraffin just to carry out the basic tasks of cooking pap or making a cup of tea.

