

TIOMIN
RESOURCES INC.

August 8, 2000

Joan Kuyek
National Coordinator
Mining Watch Canada
880 Wellington St. Suite 508,
Ottawa, Ontario K1R 6K7

Dear Joan Kuyek

Thank you for your letter regarding the Kwale Mineral Sands project in Kenya. Thank you also for the objective tone of the letter.

As we discussed on the phone the report prepared by the group from Kenyatta University is based on a number of incorrect assumptions, especially regarding the scale, of the project. As a result many of the postulated impacts will not occur or are of a significantly smaller scale.

That's why we are please to hear from you and to have the opportunity to share the facts with you.

I have attached the first few pages of a note I sent to Action Aid regarding their report.

I will review these in the order they were addressed in your letter.

The Displacement Issue

This is the most challenging issue faced by any group, private, government or NGO, involved in the development or change of use of occupied land. The issue is compounded in Kenya by the variations within the land laws and irregularities in historical land dealings.

Based on the premise that, if this project goes ahead, we will be operating in the area for many years the company must have a mutually beneficial relationship with the local residents. The company has placed a strong emphasis on developing an understanding and relationship with the local communities.

This principal has defined our efforts in the Kwale District of Kenya, is indicated by the following documented facts.

- Since 1997, Tiomin has solicited the participation of the affected communities and other interested parties. As part of the baseline study interviews with 200 heads of households were held in August 1997. Public meetings with the communities, both on the deposit and in Shimoni, started in October 1997. Further, in 1998 and 1999, a total of 19 formal meetings along with many more informal meetings with the public and community representatives were held. The objectives of these meetings were to inform the people of the progress made on the project and to gather and discuss their concerns. (EIA Vol. 2 Public Participation).
- Discussions on the leasing of land were initiated in 1998 and over the last couple of years the majority of landowners have entered into a lease agreement with the company.
- The compensation package offered by Tiomin to the landowners in the area of the project was based upon the valuations produced by a registered Kenyan Land Valuer who individually valued the properties.
- Rather than purchase the land outright, the option to lease the land from the landowners was chosen. The objective was to compensate the landowners with sufficient funds to allow them to purchase a similar piece of land elsewhere and to reestablish their dwellings.
- Once the project was completed the landowner would then own two properties - the new property and the original piece of land.

- The cash compensation package offered to the landowners is comprised of the following three elements.

1. A base payment of Kshs 9,000 per acre

The Kshs 9,000 per acre was based upon the records of the land sales in the area held at the Kwale Government Land office. Average sales in the three localities (18 sales over 4 years) were between Kshs 3,930 and Kshs 10,532 per acre with a weighted average of Kshs 9,020 per acre. These sales were for land including improvements and crops.

2. A payment for improvements and crops

For the resident landowners this payment comprises the bulk of the compensation. The numbers were arrived at by the valuer on an individual basis. The amount of money paid ranges from zero (for undeveloped land owned by individuals residing elsewhere) to Kshs 254,675 per acre (for a well developed farm).

3. An annual payment

An annual payment of Kshs 2,000 per acre escalating at 10% per annum for the life of the lease.

To tabulate this data for the three locations;

Location	Land Sales (1996-99)		Tiomin offer	
	# Sales	Av. Price Per acre	# signed	Av. Price * per acre
Mwaweche	3	Kshs 3,930	53	Kshs 25,768
Kidiani	7	Kshs 9,886	18	Kshs 48,888
Mchingirini	8	Kshs 10,532	5	Kshs 60,218

* Excluding annual payment and other commitments

- The Action Aid report has selectively merged two handouts prepared by Tiomin to prepare their land values table and give an inflated impression of the land values (table above). As can be seen the cash component of the offer is a multiple of the land values and will enable the landowner to purchase another similar or larger property in the region.
- It is important to note that all the processed leases are registered and are available on file at the Kwale Government land office. Despite all the recent comment from Kenya no one has actually reviewed the land files.
- Through discussions over the last few years a number of related issues, such as physical and legal assistance with the move, relocation of infrastructure such as schools, churches, mosques, graves, employment, training, monitoring, have been discussed and resolved or methods for resolution established.
- The Company still has to complete the Resettlement Action Plan, which will address the relocation of the residents as a group. The residents must of course support this proposal.
- Kayas in Kenya are registered with the National Museums and are protected under law. No Kayas are present in the proposed mining area.

The Environment Issue

The EIA coordinated by Coastal Environmental Services of South Africa who have worked on a number of mineral sands projects in Africa. The study utilized of Kenyan specialists for sections of the study. CES had a high level of input into the engineering project design and a number of major changes to the project were made as a result.

- "The proposed mitigation measures will maintain the agricultural potential of the Central and South Dunes, and will improve the land capability of the tailings dam area by providing a better soil mixture in this area than before" – EIA (vol. 7 & vol. 4)
- The envisaged process (subject to the desire of the landowner) is that the people will relocate to and develop a new piece of land. Although some of the crop trees (i.e. mango) can take 7 years before they crop significantly many of the cash crops bear within 3 years (bixa, casurina). Whether they keep the original piece of land, sell it or move back at the end of mining will be the decision of the landowner.
- The zircon at Kwale contains the stated, low, levels of uranium and thorium (0.031% & 0.014%). The levels at Kwale are similar to those found in minerals mined in Australia, South Africa and the USA and do not present a risk to public health. The uranium and thorium is contained within the Zircon crystal lattice and has not significantly leached out into the environment over the last few million years.

- These elements will not be released into the environment as a result of the mining operation. The Radiation Protection Board (Ministry of Health) has been to the site and has carried out tests in the soils, water and the minerals and will present its findings to the Inter-ministerial committee on the project. Tiomin is working with the radiation Protection Board to establish procedures for monitoring the environment and employees and ensuring that safe working practices are developed and followed.
- The Company will ensure that the WHO emissions standards are met. The most commonly utilized method for reducing the emissions is to use scrubbers in the power generating plant.
- The impacts on the marine environment will be limited as no dredging will take place and the risk of a shipping accident is extremely low
- The project will have a net water consumption off around 500 cubic metres per hour. The calculated sustainable supply (Groundwater Kenya Limited) from the river and groundwater sources is approximately 1,000 cubic metres per hour.
- The wet plant (which consumes 99% of the water) does not use any chemicals and can therefore not contaminate the water. Saltwater incursion into the aquifer will not occur as long as the drawdown is kept well below the recharge. This will be monitored by the department of water.

The Corruption Issue

- Tiomin has not, and will not, become involved in any corruption or bribery. It is against our policies and practices. The company believes that it is possible to operate in Kenya without resorting to bribery.
- The Company is not negotiating with an individual within the Kenyan Government but is working through each issue with the respective Ministry.
- Due to short notice, only three days, Tiomin was unable to attend the meeting in Diani on the 18th of June. However the company did attend a follow up meeting on the 19th of July in Nairobi.

I hope this information is of assistance and if you have any further questions please do not hesitate to contact me.

Sincerely,



Mathew Edler
Vice President
Tiomin Resources Inc.

Comments on the Report by Kenyatta University sponsored by Action Aid

The report contains a number of incorrect assumptions regarding the project and the scale of operations. Unfortunately the result is that the potential impacts of the project (as defined by the group) have been significantly magnified and a number of impacts that would be considered too small to measure become significant. These errors seem to arise as a result of a poor level of understanding of mining in general and this project in particular.

I will note the main erroneous assumptions in the first section and then refer back to them as needed.

1. **Page 1 - The project will involve mining to a depth of over 30 metres over an area of 64 square km.** The mineral deposits cover an area of just over 5 square km and are located on the top of a hill (ancient sand dunes). As such the mining project will remove the top of the hill and not produce a pit. The mining process will commence at the northern end of the deposit and move south. Once sufficient flat land has been created behind the mining face the redeposition and rehabilitation programme will commence. This means that at any one time the area being mined is much smaller than the area of the deposit.
2. **The minerals contain appreciable levels of Uranium and Thorium which will be leached into the environment and cause mutation, death and loss of species.** The Zircon contain a very small amount of Uranium and Thorium (0.045%) which even after the zircon has been separated out will not pose a threat to humans or the environment. This mineral has been in the ground for the last 4 - 5 million years and in that time has been acted upon by groundwater. If the zircon was vulnerable to leaching the elements would have been leached out millions of years ago. The U and Th will also not be leached out in the HAL process as the residence time is short and the zircon is an inert mineral. The HAL process is used in many countries such as Australia and no leaching of radioactive elements has been observed.
3. **The project will use 3,900 cubic metres of water per hour which will deplete the local water resources and result in saltwater contaminations of the aquifer.** The project was projected in the EIA to have a net water consumption of 540 cubic metres (most of the water is recycled). Further engineering work since the printing of the EIA has reduced this number to approximately 480 cubic metres per hour. Groundwater Survey Kenya, who have significant experience in the coast region in particular, calculated that the sustainable supply (50% of aquifer recharge and surplus river flow) would be approximately 1,000 cubic metres per hour.

4. **Tiomin is only paying Kshs 9,000 per acre for the land and Kshs 2,000 per acre per year.** The compensation package offered to the landowners is comprised of ;
- a base payment of Kshs 9,000 per acre;
- The Kshs 9,000 per acre was based upon the records of the land sales in the area held at the Kwale Government Land office. Average sales in the three localities (18 sales over 4 years) were between Kshs 3,930 and Kshs 10,532 per acre with a weighted average of Kshs 9,020 per acre. These sales were for land including improvements and crops.
- a payment for improvements and crops;
- For the resident land owners this payment comprises the bulk of the compensation. The numbers were arrived at by the valuer on a individual basis. The amount of money paid ranges from zero (for undeveloped land owned by individuals residing elsewhere) to Kshs 254,675 per acre (for a well developed farm).
- an annual payment.
- An annual payment of Kshs 2,000 per acre escalating at 10% per annum for the life of the lease.

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* excluding annual payment and other commitments

The action aid report gives data on sales in the surrounding locations (courtesy Tiomin). As you can see the cash component of the offer is a multiple of the historical land values and will enable the land owner to purchase another similar or larger property in the region. It is important to note that all the processed leases are registered and are available for verification on file at the Kwale Government land office.

Comments

- P 6 The mineralised sand make a very small percentage of the Margarini Formation and occur (in Kwale) above the 90 -100 metre contour
- P 7 The three minerals do not contain "appreciable" amounts of Uranium and Thorium (0.031% and 0.014% respectively for Zircon only) under general definitions of the word.
- P 9 The legal position of the "squatters" can only be remedied by the Government however it has always been Tiomin's stated intention that the company will offer the "squatters" a similar compensation to that offered to the residents with titles.
- P 11 As can be seen in volume 2 there have been a large number of meetings and barazas with the local community.
- P 12 see Point 2