

***Trip report by Ute Koczy, Member of the Bundestag, and Prof. Egon Jüttner, Member of the Bundestag
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**Uranium mining in Tanzania -
Local population not informed of plans or risks**

The fact-finding trip undertaken by Ute Koczy (Greens) and Prof. Egon Jüttner (CDU) focused on three main issues:

1. The consequences of the planned mining of uranium in the Bahi region (Central Tanzania near Dodoma)
2. Gold mining (Northern Tanzania, visit to a gold mine operated by African Barrick Gold) and
3. The planned highway through the Serengeti National Park.

With the assistance of FEMAPO and CESOPE, local organisations with their headquarters in Dodoma, we had talks in Dar es Salaam, Dodoma, the Bahi region and the Tarime district in North Mara.



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Summary:

Since the 1990s Tanzania has developed into an important country for raw materials extraction. It is rich in a variety of mineral resources including precious metals, gemstones, industrial minerals and now also oil. The institutional and political structures needed for control and transparency with respect to these resources are, however, underdeveloped. Tanzania continues to be one of the poorest countries in the world, ranking 151 out of 182 in the 2009 Human Development Index. It is a matter of concern that poverty reduction, which is a genuine priority, is not proceeding at a faster pace and that there are even signs of the economy taking a step backwards.

German development cooperation efforts focus on water supply and sanitation, the health sector and on supporting decentralisation and local self-government. Particular progress has been made in this last sector. This exciting process devolves more rights to districts and local communities. In the most recent intergovernmental negotiations in 2009 a total of around 147 million euro was pledged bilaterally for three years. Germany, as one of 11 donors, supports poverty alleviation through general budget support (30 million euro for 2009-2011).

It is likely that following the parliamentary elections on 31 October 2010 planning for uranium mining in Tanzania will proceed and mining licences issued. The soil investigations conducted by the foreign companies involved were positive and the Australian company,

Mantra Resources Unlimited, plans to start mining uranium in Southern Tanzania (Mkuju River Project) in the Namtumbo district (see annex 1) in 2011. Unfortunately the time factor and coordination effort involved prevented us from including a visit to this region, too. We therefore concentrated our visit on the Bahi region near to the capital, Dodoma.

Information on the discovery of uranium in the region is published in the internet by both Mantra Resources and Uranex, which likewise operates out of Australia. During visits to three places (Ilindi, a settlement at Bahi, the Bahi Swamp), we discovered that the soil investigations which have been conducted in recent years have provoked a large degree of mistrust and uncertainty amongst the local population. Numerous soil samples were taken from several metres depth without the customary personal introductions, e.g. introduction to the chief dignitary of the village or ward, and without providing the local population with background information and information about the plans of the companies and the government. Similarly, no information was provided about uranium, its dangers and the security problems involved with mining it. We believe the local people are justified in their demand for information, education and the right to be consulted.

Unfortunately weeks of effort on our part to make contact with the Australian companies, Uranex and Mantra, prior to our visit were unsuccessful. We therefore had no opportunity to discuss the questions arising from our visit directly with the companies. This still has to be rectified.

In order to have a point of reference with regard to how mining operates in Tanzania and what problems there are, we visited the North Mara gold mine in the far northwest of Tanzania which has been operating for several years. Here on the border with Kenya it was apparent how extensively mining alters the landscape and how difficult it is to overcome the obstacles to communication between the local population and the mining companies (in this case African Barrick Gold). Although the director of this mine is keen to help improve the situation for the outlying villages and their population (health, education), these efforts have, for reasons not altogether clear, been unsuccessful. The management of the mine is, nevertheless, aware that working in collaboration with the government and the local communities is the only option, particularly since acts of sabotage (contamination of lakes with toxic effluent, illegal mining operations, destruction of machinery) and criminal actions are on the increase in the region and the situation is worsening. The pollution of the Tigithe river in May 2009 by contaminated water from the mine which sparked outrage may also, according to the company, have been caused by an act of sabotage. Some village residents talk about permanently polluted river water but have no way of proving this. Instead the company pointed to numerous illegal prospectors who try to use mercury to rinse out the gold, hence adding to pollution. According to African Barrick Gold, the company itself does not use mercury.

There is no transparency for the local population about the rules under which African Barrick Gold operates. There is a lack of confidence-building measures (opportunities to talk and offers to the local population) and organisations which can mediate between the sides and handle compensation claims.

Parliamentary elections are taking place in Tanzania on 31 October 2010. We therefore had few possibilities to hold official talks with government bodies to find out the state of play with regard to the proposed Serengeti highway. However from informal inquiries we made during our trip we discovered that the people were well aware of the construction of the highway. They repeated the arguments of President Kikwete, who is seeking re-election and who is canvassing support for the project. This gives great cause for concern. Our impression is that the key arguments against the project (the road will attract traffic, the fencing-off of the road will hinder animal migration, this would have a drastic impact on wildlife and represent a very grave threat to the National Park) are not known and are not being aired in the country.

Recommendations:

1. Mining companies and the government should notify the local people in the exploration areas at an early opportunity both orally and in writing of concrete plans for uranium mining
2. Education campaign on the structures and dangers involved in mining uranium
3. Education campaign conducted by independent experts and medical personnel on the dangers of radioactivity
4. Exchange of experience on uranium mining in other countries (visits)
5. Support for civil organisations
6. A scientific study into the basic economic conditions of the local population should be conducted before uranium mining commences. It is particularly important in the Bahi Swamp to lay the foundations in advance in order to be able to advise on the consequences of changes and compensation for them

Information about uranium¹:

Health risks associated with uranium mining

All natural uranium isotopes (U234, U235, U238) are radioactive. Uranium 238, the most common, decays naturally into 13 further isotopes. These decay products, like natural uranium itself, are likewise radioactive. With the exception of radon 222, which is a radioactive gas, all uranium decay products are, like uranium itself, metals.

Uranium emits alpha, beta and gamma radiation. The uranium found in the soil has a specific radioactivity of 40 Bq/kg. Providing the uranium remains in the ground, it poses little radioactive risk to humans and animals. Even if it is just 1 cm underground, this depth is enough to protect against alpha and beta particles. To protect directly against gamma radiation, however, the uranium needs to be several metres underground.

Once brought to the earth's surface through mining, however, the uranium, together with all its decomposition products, poses a threat to all forms of life.

The pathway of uranium through the body:

Uranium can enter the human body through inhaling air or drinking water contaminated with uranium. From the lungs it migrates to the lymph nodes and into the blood circulation. It is expelled through the kidneys or the intestines. Uranium is radiotoxic and chemotoxic. Once inside the human body, it concentrates in the skeleton, liver, kidneys, lymph nodes, brain and testes.

Principally on account of its decomposition products, uranium causes lung cancer, stomach cancer, lymphoma, leukaemia and other blood diseases. As a metal it has a toxic effect on the kidneys and causes severe kidney damage. In embryos it can lead to deformity, increased infant mortality, stillbirths and Down's Syndrome.

¹ Dr. Angelika Claußen, Chair of the IPPNW (International Physicians for the Prevention of Nuclear War): „Gesundheitliche Folgen des Uranbergbaus allgemein und am Beispiel des Konzerns Areva in Niger“

Wednesday, 11 August 2010:

Bahi – fact-finding tour

We travel in three vehicles in a north-westerly direction towards Bahi. After turning off the main road towards the north, we travel through the currently dried-up salt pan. As we drive past a herd of goats and sheep, a sheep jumps out immediately ahead of us and is run over. It is so seriously injured that it dies within half an hour. While negotiations proceed over the payment of compensation, we discover women at a nearby stream who are boiling salt water in pans. They tell us that using felled wood they can get three bucketfuls of salt each day. The subsoil is so salty that it is relatively straightforward to recover salt along the course of the stream by digging a hole which fills up with the salty water. The water is caught in metal pans and brought to the boil. The women earn the equivalent of 1 US dollar per bucket.

After some toing and froing the equivalent of 25 euro is paid for the female animal. We make a present of the sheep to the women who had criticised the shepherds for not heeding their warnings not to allow the animals to graze by the side of the road.



Signpost to the village of Ilindi

Arrival in the village of Ilindi: We introduce ourselves and the group to the administrative head of the village (ward), Mrs M, who did not want to be named. It is customary in Tanzania to sign the visitors' book on such occasions. Gradually more and more people arrive so that the small visitors' room fills up rapidly. A suggestion that we move outside is rejected, however, because this would then have been perceived as a formal meeting which could have caused trouble for Mrs M.

A year ago the village had received an unannounced visit from a team of researchers who, without introducing themselves (writing in the visitors' book), began to take soil samples close to a house. This caused a commotion since the villagers had not been notified of the activities of the research team. When the villagers asked the team whether they had a permit for the work, they were told that the research activities had been approved in Dar es Salaam, although the team was unable to produce any written evidence of this. Moreover, an entry in the visitors' book on 30.1.2010 records a visit by five people from TANZOR (T) Unlimited, including a geologist and a geotechnician.

Several people report that they do not feel they have been given information about the uranium mining project and that they have had contradictory information about the consequences and dangers. This makes it difficult for the villagers to form an opinion. Now the villagers are divided in their opinions.

We are asked questions about the risks posed by uranium which we answer briefly, but at the same time we point out the need for the villagers to consult independent experts for information to help them make up their minds about the project.



View of a possible future site for the mining of uranium near to Ilindi

A question about who owns the land provokes a debate among the villagers. It appears that the land is owned by the village. Who uses what land for what purposes, e.g. for growing crops, raising livestock or forestry, is decided locally. Conflicts are therefore inevitable if the government steps in and issues other land use titles. If uranium mining is to commence, it is essential, therefore, to ascertain to what extent the rights of the village community are being taken into account. The villagers tell us as we are leaving that the people of Ilindi are against the mining of uranium.



Men at the well

Back on the main road we head northwards through Bahi to a remote settlement of cattle farmers. There the headman in the village leads us to an unfinished well. He explains to us that the well had already been dug down to a depth of around 9m when he was told by officials that he could not use the well because it could be harmful to him. The reasons were not, however, made clear to him.

The headman, however, sees a connection between the ban on using the well and the exploration team which had been prospecting for uranium in the area. It seems possible that the uranium in the soil makes the well water undrinkable.

We walk through the dried-out bed of a stream to a place marked with a stake by the exploration team. A hole several metres deep had been dug in the streambed in search of uranium. The site may well be documented by satellite. The hole was not covered in at the time but had later filled up with earth during the rainy season. Once again we are told that there had been no communication between the research team and the villagers about these circumstances but that the team had simply driven up to take soil samples without explanation.



The stake marks the exploration site in the streambed; the six of us are grouped in front of it

We are underway again for another two hours to visit our last, extremely interesting documentation point, the Bahi Swamp. The Swamp is a lake with a closed drainage system which retreats in the dry season, leaving a muddy bank which continues to grow and harden. The approx. 40 km-long lake is a fascinating place. The bank is lined with the huts of fishermen who row out in their dug-out canoes along a water channel to the lake, now several hundred metres away, and catch some three tonnes of fish a day. This is kept cool in ice delivered from Dodoma, then packed and driven to the capital. We count almost one hundred dug-outs lying along the channel. There are apparently some 80 of these villages along the lake. We are told that the length of the dry seasons is variable and that the lake sometimes dries up completely. The fish survive by burrowing into the mud or migrating up the course of the river Bubu. Our initial, no doubt superficial impression is that the people here have adapted to and can live with these conditions.



A fisherwoman carries her catch home across the Bahi Swamp

Some time ago soil samples were taken from the Bahi Swamp, too, and these holes refilled during the next rainy season. In the conversations we have with the fishermen we are told that they had not been informed of the precise reasons for the borings in the area of the Swamp. There had been no talks and even after the visit by the research team, the local people had been told nothing about future plans. The fishermen fear, however, that if there were to be mining, they would have to move, but nobody knows anything more precise.

Friday, 13 August 2010

Tarime, Kiwanja and African Barrick Gold, visit to the North Mara mine

At 5 in the morning we set off in the company of Mathias Lyamunda and China Belosi Alkadi to the North Mara hinterland. We make a short stop at Tarime in order to introduce ourselves to the police (District Officer Ernest N. Kadokola). The area is one of the few in Tanzania to have its own police station. The reason for this is the increasing incidence of criminal attacks

in the area due to the proximity to the border, the attraction of the mine and government neglect. We explain our business to the District Officer and then set off for the mine, roughly 43 km away.

A short time after we arrive in the village of Kiwanga, the headman arrives. He seems very reticent in his attitude to us. It appears that there have been many visitors to the village but that nothing has changed with respect to the problems with the water and animals. Nevertheless, we are able to head off to the small Tigithe river in the company of a few men. On the way there we cross the wide road to the mine marked by large rocks which indicate that this is a private road and turning off the road is forbidden. We drive to the spot where there was a large-scale seepage of toxically contaminated water into the river in May 2009. Even now, over one year after the event, the grass is scorched and the cassava and banana trees planted there are not growing properly. We meet the 72-year-old owner of the property, Mr Richard Masoya-Masaite, who leads us through the undergrowth to a water course to show us where the water went. He points out that this water course to the river is new and that there is clear evidence of the pollution of the water as it entered the Tigithe. The men are anxious to show us the harm that the pollution of the river has caused to them and their people. They show us an official letter instructing them to report deaths of cattle more quickly in order that the dead animals can be examined to determine the cause of death.



North Mara Gold Mine

Arrival at main entrance to the North Mara Gold Mine at 12.30 h.

We receive a very friendly welcome to the North Mara Gold Mine. Kevin Jennings, Chief Financial Officer of African Barrick Gold, gives us a Powerpoint presentation which explains the situation in detail. The North Mara Gold Mine, an open-cast mine, has been in operation since April 2002. In ten years Barrick Gold with its four mines (Bulyanhulu, Buzwagi, North Mara, Tulawaka) has grown to become the biggest gold producer in Tanzania. Because of its intention to be listed on the Tanzanian Stock Exchange, the company has been trading since the beginning of 2010 under the name African Barrick Gold (ABG). According to the Society for International Development (SID), North Mara currently produces approximately 267,000 ounces (8.51 tonnes) of gold per year and employs around 1100 people, approximately 84% of them from Tanzania. Production is scheduled to run for a further 12 years and the pits are to be expanded.

ABG sees itself as a catalyst for growth in Tanzania. In 2009 the company paid 74 million US dollars in direct taxes. Mr Jennings explains that the company also believes it is important to work with the surrounding seven villages to help improve the situation. The most visible sign of these efforts are the power lines which now run to Tarime. He said that ABG had had bad experiences, however, with their involvement in the building of the hospital and schools. Even the fact that the Prime Minister conducted the dedication ceremony was not enough to keep these projects going. The problem seems to be that the opposition governs this region, which is why the government has so far held back and has invested little in schools and other infrastructure projects. The general situation, we are told, has not improved. Not even civil organisations are active here. The only way of changing anything would be if the government and local communities were to work together. ABG is willing to do so.

We are told that operations in the mine are dangerous. This is not simply due to the work itself, since high safety standards have been imposed here and statistically there are few accidents. The greater danger is posed by attacks by armed gangs, illegal mining and acts of sabotage. The proximity to the border encourages crime and attacks by foreign groups. While the majority of local people, we are told, have come to terms with the proximity of the mine and want to live in peace, there are around 10 per cent of people who cause a great deal of damage. Since attacks and theft are commonplace, the company's geological survey teams, for example, have to be accompanied by their own security guards. Where illegal mining is concerned, the material is blasted out of the open pits using dynamite and the gold separated out elsewhere, often using mercury. North Mara does not use mercury, therefore criticism about contamination of the soil is, we are told, not justified. Moreover, ABG is critical of the Norwegian study on the worrying contamination of the soil (Investigation of trace metal concentrations, see annex). There were no consultations with ABG in the course of the study and hence some of the assumptions, ABG claim, are false. The study documented a worryingly high content of arsenic and toxic metals in the water around the mine. There was an urgent need, therefore, to look more closely at the quantity of arsenic in the sediment.



Catchment basins with toxic effluent are now protected by barbed wire

After our talks a tour of the mine enables us to appreciate both the scale of the mine (a total of 750 km) and the extent of the problems in terms of surveillance and security. We are shown, for example, damage to the linings of the sumps which could have contributed to the overflow of toxic effluent into the Tigithe. In response to a question, we are told that ABG is now in talks with the owner and may well remove the soil.



Gold mine: ground destroyed by the overflow of contaminated water



At the Tigithe: Matthiasi Lyamunda, Prof. Jüttner, Richard Masoya-Maseite, Ute Koczy

We are told that more and more banana trees are being planted around the mine. This is not a normal crop for the area and hence bananas will not grow properly. The trees, it is claimed, have only been planted with a view to possible compensation payments in the event of an expansion of the mine.