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Freedom Railway: The Unexpected Successes of a Cold War Development Project

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Freedom Railway

The unexpected successes of a Cold War development project Jamie Monson

When the local train pulls into Makambako station on Tanzania’s TAZARA railway, porters scramble to load the heavy bags of maize and baskets of vegetables stacked high on the platform. The noise grows as traders shout and quarrel over the limited space in the baggage wagons, which, like the passenger compartments, seem always to be filled to capacity on these “ordinary trains” running between Dar es Salaam and Mbeya, challenging the railway authorities to keep order both at stations and at small stops along the route. Passengers haggle with traders over prices through the windows of the train, buying sacks of highland potatoes, onions, and cabbages. Overstuffed gunnysacks are squeezed through windows, and cash hurriedly changes hands as traders rush to unload their goods before the train leaves the station. Children pace up and down the platform selling roasted peanuts, fried snacks, and baskets of sweet bananas.

At each station along the way, this scene is repeated: the arrival of the ordinary train transforms the railway platform into a thriving marketplace. The planners of TAZARA were not expecting any such transformation when they initiated the project in the late 1960s. They imagined a grand national railway owned by the state that would be used for large-scale regional shipments of copper and other goods from Zambia—a project that would rival Egypt’s recently completed, Soviet-funded Aswan Dam. Their primary goal was not to promote rural economic development or improve the lives of rural producers by connecting local markets. But that has been TAZARA's real impact.

This is easy to miss. Conventional assessments of TAZARA, which rely on large-scale, international and transregional indicators rather than small-scale, everyday traffic in goods and people, are typically unfavorable. But local traders, farmers, and workers use the railway in many ways to improve their lives, and an analysis of these railway-platform markets suggests that the standard assessments overlook something real and important. This is what I learned from studying TAZARA with a team of researchers from 1998 to 2003. We collected passenger-parcel receipts, interviewed passengers, and observed daily life in the railway corridor. We found that TAZARA has been an important resource for the development of a thriving entrepreneurial economy along the route from Kilosa to Mbeya, in southern Tanzania. Today TAZARA connects local communities and provides farmers with the physical, social, and economic mobility they need to contend with rural Africa’s unpredictable economic conditions. And its successes—though unanticipated and hard to measure with any precision—may suggest some important lessons for economic development elsewhere.

* * *

On an August afternoon in 1969, the Chinese ocean liner Yao Ha steamed into the Tanzanian harbor of Dar es Salaam. As Chinese military music blared from loudspeakers, some 1,000 Chinese railway technicians disembarked, all wearing identical gray cotton suits and balancing small blue suitcases on their shoulders. Crowds of curious onlookers gathered, some speculating that the strangers were soldiers or prisoners sentenced to hard labor. After spending the night in camp at Kurasini harbor, the workers were corralled onto the backs of large trucks and transported south into Tanzania’s interior. There they would begin construction on China’s largest development project in Africa.

Over the next five years, 20,000 to 30,000 more Chinese railway technicians would arrive in Dar es Salaam to supervise and assist with TAZARA. They would spend months in remote areas of the interior, blasting tunnels, building bridges, and laying the track that would stretch across southern Tanzania to the Zambian copper belt. Chinese support of TAZARA was essential. Tanzania was then—as it is today—one of the world’s poorest countries. (In an economy heavily dependent on agriculture, only four percent of the land is suitable for farming.) The Chinese advisers and engineers would eventually be joined by more than 40,000 Tanzanian and Zambian workers, who were also training to become TAZARA's future technicians. The potential long-term economic impact was enormous.

During TAZARA’s construction, Western politicians and analysts criticized the project as politically motivated, and most expected failure. Tanzania and Zambia were newly independent, and Presidents Julius Nyerere of Tanzania and Kenneth Kaunda of Zambia proposed a railway that would link the Zambian copper belt to the Tanzanian port of Dar es Salaam, thus ending Zambia’s dependency on the colonial rail routes that passed through settler-ruled Rhodesia.
Nyerere and Kaunda first approached Western donors and multilateral agencies for support in TAZARA's construction. But one donor after another—including the United States, Great Britain, Japan, the World Bank, and the United Nations—turned them down, citing negative evaluations by development economists. The Soviet Union was also uninterested, and the Chinese seized the opportunity.

Throughout the 1960s, China had been actively supporting African liberation movements and claiming to be the only world power truly in solidarity with those in the Third World who were fighting against colonialism. At the time of TAZARA’s completion in 1975, a North China News Agency broadcast criticized the Soviet Union for claiming to be socialist and revolutionary when it was in reality imperialist and European and criticized the United States for “[spreading] fallacies that ‘it is too costly and is not worth the while to build railways in Africa,’ and that ‘Africans are too backward to master technology.’” The broadcast continued, “But these lies, slanders and maneuvers of the enemy were laid bare by the African people with deeds.” TAZARA promised to raise China’s profile in African development, and the project’s success would gain China recognition as a superpower. China also sought to reward Tanzania for its leadership in the international movement for non-alignment and for supporting China in international affairs, particularly at the United Nations.

After China agreed in 1969 to fund the $400 million project with a 30-year interest-free loan, surveying and construction began. When the project was completed in 1975, two years ahead of schedule, Chinese, Tanzanian, and Zambian leaders celebrated TAZARA as an example of what could be accomplished through international solidarity and hard work. Less enthusiastic observers deridingly called TAZARA not the Freedom Railway but the “bamboo railway”; roads, not rails, were the keys to transportation infrastructure and rural economic development in post-colonial Africa, Western economists argued. The TAZARA project was sure to quickly become irrelevant.

The critics had reason to doubt the project. TAZARA was, as they said, of political and strategic value to the Chinese, who did not make any direct economic gains from the railway’s construction. Moreover, the railway suffered a series of setbacks during its first decade of operation, many of them technological failures. The politics of the railway project were behind at least some of these problems: in their haste to build the railway ahead of schedule and to show the world what they could accomplish, the Chinese did not achieve their goal of training and supervising enough African technicians to take over the management of TAZARA after their departure. Indeed, the railway authority continues to rely on a team of Chinese experts.

The railway was plagued early on by frequent landslides and washouts, especially during the severe rainy season of 1979. Repairs were made relatively quickly with Chinese assistance. Other problems were more intractable. The Chinese-built engines and wagons were continually breaking down, and they languished in workshops rather than being repaired and sent back out on the track. The diesel hydraulic locomotives first sent by China were ill-suited to the task of hauling heavy loads up the steep escarpment between Mlimba and Makambako. Transshipment and offloading times were slow at Kidatu in Tanzania and Kapiri Moshiki in Zambia; there were inefficiencies and corruption at the port of Dar es Salaam; and there were seasonal bottlenecks all along the line when maize and fertilizer were shipped in large quantities during planting and harvest times. By the end of 1978, as many as half of the railway’s locomotives were stranded in workshops.

In the early 1980s, the railway’s performance looked bleak indeed. Two million tons of cargo were meant to have been shipped daily on the railway, but the actual rate was only 865,000 tons a day. Passenger traffic filled only two trains per week rather than the projected six. Then, in the mid-1980s, two important events took place that would change TAZARA’s performance, at least for a time. The first was a decision by the Tanzanian government to liberalize the economy, which resulted in a first-time agreement with the International Monetary Fund in 1986. The second event was a gathering of international donors in Arusha in 1985, where an aid package for TAZARA’s recovery was adopted, funded by seven European countries. China also gave additional aid to TAZARA at this time.

Between 1987 and 1993 the TAZARA recovery package would provide around $150 million for the rehabilitation of everything from the track to the wagon fleet. Passenger-train performance began to climb, increasing steadily into the 1990s. Passenger traffic along the length of the line, which had lingered below 500,000 in the early 1980s, reached 988,000 by 1990. Local-goods traffic in Tanzania also rose almost 50 percent between 1985 and 1988, according to TAZARA reports.

In conjunction with the improvement of TAZARA’s services, the changes in economic policy stimulated new patterns of rural settlement and exchange. When the railway was completed in the mid-1970s, rural residents of the TAZARA corridor (as elsewhere in Tanzania) were resettled into centralized “ujamaa” villages. Here agricultural marketing was organized through village cooperatives and, later, government-controlled marketing boards. The mid-1980s liberalization of Tanzania’s economy reached the agricultural sector in 1991. As
markets for agricultural products were opened up, grain and other farm produce that had formerly been sold to
government cooperatives could now be exchanged in local and regional markets. This in turn provided new
opportunities for small-scale traders to transport these products using TAZARA. But at the same time,
employment and wages in other parts of the Tanzanian economy were falling. As a result, more and more
people were relying on informal trade to make a living, again using TAZARA to transport themselves and their
goods.

In the highland maize-growing areas surrounding the TAZARA corridor, liberalization was having a different
kind of impact on rural livelihoods. Land shortages in Iringa and Njombe had already pushed many families
onto farms that were only marginally productive. As rising prices pushed fertilizers and other supplies out of
their reach, these farmers opted out of the highland maize economy and used TAZARA to migrate into the
railway corridor. In the fertile soils of the Kilombero valley they could grow not only maize but rice and other
food crops without significant capital investment. As Stefano Ponte has recently shown, farmers were making
shifts throughout Tanzania in the post-liberalization economy from “slow” crops and crops requiring heavy
investment to “fast” crops that move quickly from field to market. This was the case along TAZARA, where
farmers moved from maize and other low-price, high-input crops to “fast” crops like market vegetables and
low-investment crops like wetland rice.

While the improvements in TAZARA’s performance were not long-lasting (in 2001 Tanzania’s transportation
minister acknowledged that TAZARA was suffering once again from unsatisfactory traffic, precarious
finances, and declining customer confidence), nevertheless by the late 1990s the railway had become an
important resource for traders, farmers, fishermen, and others who were now living in the railway corridor. In
particular the section of the TAZARA railway between the towns of Mbeya and Kidatu became an attractive
destination for migrants, both those from urban areas and those from the surrounding highlands, where rural
economic conditions had faltered. TAZARA officials now call this section that passes through the Kilombero
valley the “passenger belt.”

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Farmers and traders in East Africa must contend with economic conditions that are continually shifting in
response to government policies, international markets, climate change, and other factors that are largely out of
their control. To survive and succeed in this context of uncertainty, rural people must have the flexibility to
draw on several sources of revenue; as with investment portfolios, diversification insures against risk. Farmers
may diversify by changing the crops they grow, the kinds of products they trade, or the places they live. For
these shifts to be effective, rural producers need timely and accurate information about markets and harvests so
they can make the best choices.

The railway has made it possible for traders to switch among products by linking different types of
settlements, markets, and production zones. Between Kidatu and Makambako the train passes through a
succession of distinct ecosystems that differ according to altitude, soil type, water availability, and other
variables. For example, rice is grown on a large scale in the low-lying floodplain of the Kilombero river valley,
and fish are harvested from the Kilombero River and its numerous tributaries. In the highlands to the west, on
the other hand, the main agricultural products are maize, millet (valued for brewing local beer), dried beans,
potatoes, and a variety of cool-climate vegetables including onions and cabbages. Makambako, located in the
western highlands, exports maize, millet, beans, and vegetables to stations at lower altitudes. The well-
populated floodplain settlement of Ifakara receives many of these shipments, sending back sacks of rice and
dried fish (along with the empty baskets or “cages” that are used to transport vegetables) to Makambako.
Meanwhile, Ifakara traders are shipping large quantities of rice to Dar es Salaam, the main urban market for
the valley’s rice harvest. The smaller settlements between the highlands and the floodplain each have their own
distinctive product specializations. Mlimba, the last stop in the valley before the steep escarpment climbs up to
the west, is known for sweet oranges that are grown in the nearby foothills of Masagati. Further to the east, the
stations between Mngeta and Idete are known for prime cooking bananas, the result of both ecological and
ethno-cultural circumstances.

Peddlers hawking consumer items such as plastic buckets, used clothing, and aluminum cooking pots frequent
the smallest stations and most isolated villages. They acquire their goods on consignment from wholesale
merchants in the larger towns, then carry them on the train into the countryside. Here the peddlers bicycle from
settlement to settlement, their goods dangling from the back of their bicycles to attract attention. Sometimes
they set up makeshift stalls or lay out gunnysacks on the ground adjacent to village markets. When they have
sold enough to repay the wholesaler and keep something for themselves, they take the train back to town.

These itinerant traders are known in Tanzania as warnachinga, and they are found in both rural and urban
settings. Each time a small-scale trader boards the TAZARA railway with a “parcel,” it is stored in a
compartment and a receipt is generated that records the name of the passenger (and frequently that person’s sex), the station of origin, and the passenger’s destination. The parcel receipt also lists the goods that are being carried, their quantity (in numbers of bags, for example), and their weight in kilograms. The original copy of this receipt is given to the passenger so the goods can be retrieved. The carbon copies left at stations of origin paint a comprehensive picture of small-scale trade along the railway. Because the records are not preserved in a consistent way from station to station, there are gaps in the data for some stations and some months. Nevertheless, it has been possible to gain a sense of the volume and pattern of small-scale trade in the TAZARA corridor.

We collected parcel receipts from five stations along the TAZARA corridor. The receipts show that consumer goods and bicycles are transported regularly from the large market towns of Mang’ula, Ifakara, and Makambako out to the smaller villages. Aboard the train, a young man named Anua Mtengela explained to us how he sells his goods near the small halt station of Ikule. Starting from the station, Anua rides his bicycle up the road to a training camp operated by the national army. There is a settled population at the camp living a considerable distance from town, thus providing Anua with a ready market. On Sundays he rides in the opposite direction to the town of Mngeta, where there is an active market. “The good place to sell [on Sundays] right now is at Mngeta,” he said. “At Mngeta there is a place near the market where many people bring their goods and spread them out along the ground, selling to people who are coming out of church, going to town.” On Mondays he and his fellow traders stay on in Mngeta, selling in the neighborhoods. Even in towns where there are shops and markets, Anua reports, the wamachinga get many customers because they can offer cheaper prices than shopkeepers.

Anua has been successful enough to accumulate a small profit over time, which he has invested in rice farming. He recently bought a small plot of land from a local village; he now farms two acres of grain and has built himself a small house. His goal is eventually to become settled here, to marry and to raise a family. He will probably continue both the farming and the small-scale trading as a hedge against adversity.

The railway has been an important resource for Anua Mtengela, helping him to accumulate a small amount of savings as an itinerant trader that he then invested in a farm plot. TAZARA provides the connection that links Anua’s farm with the different markets where he does business. Several other traders described following a similar strategy of combining farming and trading in the TAZARA corridor. They referred to farming as their economic foundation, or msingi, illustrating their sense that agriculture—and ownership of a plot of land—is a source of security in an uncertain economic world.

In recent years wage workers living along the TAZARA route have also sought to move into farming, not only after retirement but also during their years of employment. One of the largest employers in the railway corridor is the Kilombero Sugar Company, a large-scale enterprise built in the 1960s that has extensive sugar-cane plantations, several outgrower schemes, and a large processing factory. For many decades the Kilombero Sugar Company was run as a government enterprise, with guaranteed worker protections and other benefits. Since liberalization, however, the company has been taken over by private investors who have reduced the size of the labor force as well as the short- and long-term security of those who remain employed. Some 3,000 of the company’s workers were laid off following the plant’s acquisition by South African investors and a bitter labor dispute in June 2000. In response to these layoffs and other changes in worker security, both former and current workers are moving into the farming sector. Unfortunately, though, much of the arable land around the company is already taken up by company cane plantations and sugar-cane outgrower schemes. Newcomers must therefore acquire land for farming some distance away, and here again TAZARA plays an important role. Workers maintain their residences at or near the Kilombero Sugar Company (depending on their status), while using the railway to travel to their more distant farm plots. Frequently families are divided during the planting and harvesting seasons, as some members remain close to the factory while others live some distance away on the farm.

The rural producers who have farmed for years as outgrowers for the Kilombero Sugar Company have also used the railway to travel to outlying farm plots since the 1980s. The land these outgrowers cultivate near the company is planted almost entirely with sugar cane, so most families must plant supplemental rice and maize farms in other parts of the railway corridor. The grain they harvest there provides them with food for subsistence and also for accumulation, forming an important supplement to the income they earn by selling cane under contract to the company.

Thus, by the late 1990s, casual and temporary workers, laid-off workers, and sugar-cane outgrowers all viewed agriculture as an important form of livelihood security. As available land around the sugar company dwindled, these farmers used TAZARA to travel to plots in other parts of the Kilombero valley where fertile land was still available. Some of these farms were quite a long way from the sugar company—as far away as Chita and
Mlimba—causing families to separate on a seasonal basis. TAZARA provided an important resource for these farming families, as a link between farm and workplace.

TAZARA has also linked cultural and linguistic communities. When new migrants come into the railway corridor to settle, they seek out places that feel like home—places where they can grow their favorite staple foods in a landscape that is familiar. As new settlements grow up they develop into linguistic and cultural communities that in turn attract new migrants and commerce. Nyakyusa-speaking families from the highlands of Mbeya, for example, have settled in large numbers around Mngeta and Mbingu, where they cultivate bananas and maize in the foothills and fish in the Kihansi river. Travelers who pass through this area on the train know that it is the best place to purchase cooking bananas, which are sold at the lively banana market at the stations. Suleiman Nyumile, a trader, says he prefers to trade at Mngeta because “the people here who are good farmers are not local people—they are from the southern highlands, so it makes it very easy for me to do business because we understand one another’s language. They come from Mbeya and Iringa. It is easier to do business with people who speak the same language. It makes me feel like a local person, not like a stranger.”

For younger or first-time traders, these settlements that retain a connection to home are places where they may find a relative or other mentor who can help them to get started with connections in the marketplace or even some limited capital. Individuals of any age and either sex who find themselves far from home may rely heavily on members of an extended family or cultural community for assistance. A middle-aged man named Lazaro Mbilinyi, for example, used TAZARA to help him regain his footing after his small tailor shop in Iringa was looted and all his possessions stolen. Lazaro used the railway to visit a friend living in Ifakara, who helped him to start a new life as a market trader. Once Lazaro’s personal life and economic circumstances were stabilized, relatives began to send their children to stay with him when they found themselves in difficult circumstances. The train made it possible for many relatives to send their children to stay with Lazaro, whose household is now swollen with dependent nieces and nephews.

The railway also makes it possible for family members to return to their homes of origin when they are needed during an illness or for a funeral, wedding, or other occasion. The railway has been especially important for single women, who are frequently expected to attend these types of events and fulfill other family obligations. A young mother in the Mngeta market, for example, uses TAZARA to return to her extended family at Mbeya when there are family obligations there. She follows in the footsteps of her own mother, who was also a vegetable trader in the Mngeta marketplace as a young single mother a generation before her. In Ifakara, a market trader who sells beans and groundnuts, uses TAZARA to visit her in-laws back in Mbeya. She has been raising her children alone since the death of her husband several years ago but prefers to live in Ifakara and support herself rather than live as a dependent in the home of her husband’s parents. She is able to fill her responsibilities to visit them by using TAZARA, often combining a business trip with a family visit while living an independent life in Ifakara.

The railway is the connective tissue of this rural world. It makes socio-cultural connections possible as well as economic ones. Indeed, many economic decisions and circumstances in rural Tanzania are linked to family, ethnicity, and origins. In the TAZARA corridor, a trader like Suleiman Nyumile can feel like a local rather than a stranger in Mngeta, even while he is several miles from his home in the Nyakyusa-speaking heartland around Mbeya.

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National governments generally evaluate railroads and other large-scale projects in terms of their capacity to generate revenue or at least pay for themselves. They don’t normally look at the societal effects on a local level, at the way people have used the resource and lobbied to make it meet their own needs. In the case of TAZARA, much more extensive study at the local level is needed. The changes it brought to the way of life in the railway corridor suggest a real benefit for micro-scale economic diversification.

But whether this kind of small-scale diversity can eventually lead to the stabilization of an entire national economy—Tanzania’s or that of other African nations in the region—remains to be seen. Moreover, since the late 1990s TAZARA’s performance has once again become unreliable. There has been ongoing speculation about the future privatization of the railway, and a climate of uncertainty and allegations of corruption have clouded the railway’s future. For the rural people who live in the TAZARA corridor, performance problems are felt most often as a reduction of services for passengers and small-scale traders, particularly for the ordinary train and for the small shuttle train, or kipisi, that runs several times a week in the passenger belt. Community leaders have brought complaints to their district officials and their parliamentary representatives, but these have not so far resulted in improved service.
The environmental impact of expanding settlement in the TAZARA corridor is also a growing cause for concern. In the most densely settled sections of the region between the Udzungwa Mountains National Park and the Selous Game Reserve, there is little land left for cultivation. Several types of vegetation have been drastically reduced in this area, and one grassland ecotype has all but disappeared. As farmers use the railway to gain access to the remaining areas of productive land in the Kilombero valley, environmental resources will continue to be affected. For rural development to be productive and sustainable in the long term, some kind of land-use planning will be needed. Thus while the TAZARA railway may look like a development success story in the short term, it is unclear what the longer-term prospects may be in terms of sustainability, either for the services of the railway or for the natural environment.

For TAZARA to continue to be a resource for sustainable development at the local level, and for this development to include the long-term accumulation and livelihood security that comes with farming and agriculture, two kinds of interventions are necessary. The first would be an effort to further document and support the services the railway provides at the local level, in particular the ordinary train and the Kipisi shuttle train; this closer accounting is bound to reveal benefits (and perhaps costs) that the government does not now see. The second would be a comprehensive land-use plan for the railway corridor that would allow for controlled rural settlement and cultivation while at the same time protecting the natural resources of the Kilombero valley and its surrounding foothills. With interventions on these two fronts, the TAZARA railway could well become a stable resource for the people living along the railway corridor, enhancing their physical, economic, and cultural mobility in a world whose only certainty is its continuing uncertainty.