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To cite this article: Conrad Schetter, Lucy Massoi & Venance Shillingi (13 Jan 2026): Infrastructure for peace: conflict settlement between pastoralists and farmers in Kilosa/Tanzania, Journal of Eastern African Studies, DOI: [10.1080/17531055.2025.2611657](https://doi.org/10.1080/17531055.2025.2611657)

To link to this article: <https://doi.org/10.1080/17531055.2025.2611657>



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Published online: 13 Jan 2026.



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## Infrastructure for peace: conflict settlement between pastoralists and farmers in Kilosa/Tanzania

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### ABSTRACT

This article examines the conflict dynamics between Parakuyo pastoralists and Kaguru and Saguru farmers in Kilosa, Tanzania. It focuses on the socioeconomic transformation generated by the construction of the Standard Gauge Railway (SGR), which began in 2018 and traverses Parakuyo pastoral land. Against the background of the so-called Kilosa killings of the year 2000, when Parakuyo pastoralists murdered 38 farmers, this article investigates how the SGR has affected relationships between pastoralists and farmers. Drawing on qualitative research methods, our study unveils surprisingly that peaceful coexistence between farmers and pastoralists has emerged in recent years, reflected in collaborative arrangements and the mediating role of peace committees. The construction of the SGR has emerged as a decisive turning point by providing employment opportunities for former young Parakuyo warriors (*Morans*). These jobs relieve economic pressure and promote stability by providing profitable alternative livelihood income to conventional pastoralism. However, the main question that remains is how sustainable these new jobs are and what will happen once construction of the SGR has ended.

### ARTICLE HISTORY

Received 17 November 2024  
Accepted 23 December 2025

### KEYWORDS

Pastoralism; infrastructure; Standard Gauge Railway (SGR); Parakuyo; peaceful coexistence

On 8 December 2000, the community of Rudewa Mbuyuni in Kilosa district witnessed a traumatic incident that left a deep scar on the relationship between farmers and pastoralists living in separate communities in Kilosa district. Parakuyo pastoralists ambushed ethnic Kaguru and Saguru farmers in their neighbourhood, which resulted in the killing of 38 farmers – a massacre that came to be known as the ‘Kilosa killings.’<sup>1</sup> This violence drew national attention to a protracted conflict between pastoralists and farmers over contested land use. Two decades later, in 2022, the district presented an entirely different picture: Parakuyo pastoralists herded their cattle on the harvested fields of farmers in Rudewa Mbuyuni; Kaguru and Saguru farmers and Parakuyo women were selling their agricultural products side by side in village markets; and

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children of both communities were playing together in the streets. Parakuyo warriors (*Morans*), previously working as cattle herders, were now employed as security personnel along the recently built Standard Gauge Railway (SGR).

These two vignettes – the massacre of 2000 and the peaceful coexistence in 2022 – illustrate sharply contrasting moments of social interaction in Kilosa district. This juxtaposition provided the starting point for our research, which seeks to understand how coexistence and trust between pastoralists and farmers could be re-established after the traumatic ‘Kilosa killings.’ We argue that the construction of the SGR-railway, which cuts through Parakuyo grazing lands in Kilosa, marked a decisive turning point in improving the overall relationship between pastoralists and farmers – hence the title *Infrastructure for Peace*. At first glance, the situation in Kilosa in 2022 appears to support the hypothesis that infrastructure interventions can accelerate an overall socio-economic change – at a time when pastoralism is already in decline – and foster greater cooperation between pastoralists and farmers. However, a widespread counter-hypothesis must also be acknowledged: Infrastructure interventions can intensify and amplify conflicts between pastoralists and farmers and further marginalise pastoral livelihoods.<sup>2</sup> Against this background, the aim of this article is to examine what happened in Kilosa to overcome a severe conflict situation and achieve a certain level of peaceful coexistence.

To address this question, the study employed a qualitative research design including participant observation, transect walks, six focus group discussions, and thirty in-depth interviews with key stakeholders: Parakuyo pastoralists, Kaguru and Saguru farmers, district and village government officials, peace committee members, and SGR officials. The authors extensively and repeatedly visited the villages of Twatwatwa, Mbwade, Parakuyo, and Rudewa Mbuyuni between August 2021 and March 2023. Triangulation was used to increase the dependability and accuracy of the outcomes, corroborating findings from several data sources, including a review of conflict records and previous reports from the Kilosa police station and district office. Ethical standards were upheld through informed consent from the participants, protecting participant privacy through anonymised data records and names, and thus guaranteeing non-maleficence by preventing harm or distress during data collection. While the qualitative approach provided deep insights, limitations included potential response bias, non-generalisability of findings, and a focus on immediate rather than long-term impacts.

This article begins by discussing the commonly assumed antagonism between pastoralism and farming, highlighting the major challenges facing pastoralists today as a frame for our case study. Based on that debate, we then provide an account of the livelihood of pastoralists in Kilosa, their relationship with the neighbouring farmers, and the causes for the ‘Kilosa killings’ in the year 2000. Our research’s starting point and main point of reference is the influential analysis of the socioeconomic context of the ‘Kilosa killings’ by Benjaminsen et al., who elaborated on the several layers of this conflict.<sup>3</sup> In the next section, we examine the state of relationships between the pastoralists and farmers 22 years after the massacre. Here we particularly focus on the role of the newly installed peace committees and the joint arrangements which were put in place between the two communities. We then turn to what we identify as the decisive turning point that improved the relationship between pastoralists and farmers: the construction of the SGR, which accelerated socioeconomic transformation among pastoralists. Here, we show first how the SGR provided alternative job opportunities for

pastoralists, and second, how it indirectly affected pastoralists' socioeconomic and cultural way of life. In our conclusion, we return to our initial hypotheses. We argue that, on the one hand, a transformation of pastoral communities in Kilosa can be observed, which has led to peaceful coexistence with the neighbouring farmers; on the other hand, pastoralists continue to maintain cattle-based livelihoods and associated identities and values. In other words, the financial opportunities generated by large-scale infrastructure have enabled pastoralists to adapt their pastoral livelihood to a changing environment.

### **Pastoralists versus farmers**

At the local level – below the threshold of wars and civil wars – violent conflicts between migrating pastoralists and sedentary farmers are among the most widespread types of conflict in Africa.<sup>4</sup> A common argument is that this is an antagonistic conflict constellation that is characterised by constant ebbs and flows of contestations, yet always contains a kernel of severe violent confrontations.<sup>5</sup> Pastoralism and farming are frequently portrayed as mutually exclusive ways of life that pursue different livelihood strategies (mobility vs. sedentariness), are based on different techniques (e.g. livestock vs. crop cultivation) and make use of land differently (extensive vs. intensive use of land). However, a counter-narrative argues that both ways of life are complementary and even depend on and benefit from each other – for example, in production (meat vs. crops) or land use. In addition, cooperation, particularly in marketing and trade, as well as social interactions (e.g. marriage, friendship) between pastoralists and farmers is by no means uncommon.<sup>6</sup> Finally, between the two ideal types, there are a multitude of intermediate stages of agro-pastoralism that blur any clear distinction and, instead, tend to emphasise coexistence and gradual transition between both modes of life.

Against this background, it becomes important to analyse the specific localised context that enables cooperation or generates conflict between pastoralists and farmers. It can certainly be argued that social separation and the willingness to enter into conflicts is strongest when there is an isomorphism of livelihood, cultural practices, and identities (e.g. ethnicity, language, religion) as witnessed, for example, between farmers and ethnic Fulani pastoralists in Nigeria.<sup>7</sup> In such cases, differences between pastoralists and farmers quickly harden into ethnic boundary-making or ideological antagonisms that make violent conflicts more likely than cooperation. In the wider literature, three additional primary drivers of pastoralist – farmer conflict are identified: the role of the state, the impact of climate change, and the transformation of land:

First, across Eastern Africa, there is a belief – driven by modernist ideas – that pastoralism is an anachronistic way of life destined to disappear with the continuous expansion of sedentarisation and agriculture. Due to pastoralists' mobile way of life, governments frequently view them as a challenge to state control and security. In addition, they understand their livelihood as unproductive and environmentally destructive.<sup>8</sup> Market integration and state policies have altered traditional land use practices in low-rainfall regions, increasing competition and conflict between pastoralists and farmers.<sup>9</sup> In Tanzania, the government and the public often view pastoralism as incompatible with modern development goals and in need of eradication. One such example of this is the opening address to parliament by Jakaya Mrisho Kikwete, former President of Tanzania, on 30 December 2005:

... we must modernise animal husbandry. We will have no alternative. We must abandon altogether nomadic pastoralism, which makes the whole country pastureland.... The cattle are boney, and the pastoralists are skeletons. We cannot move forward with this type of pastoralism in the twenty-first century.<sup>10</sup>

Second, it is argued that conflicts between farmers and pastoralists will increase as resource scarcity – exacerbated by climate change and population growth – becomes more acute.<sup>11</sup> Eastern Africa is considered a hotspot of climate change, and countries such as Kenya and Tanzania have seen their population double in the past 25 years. While natural resources essential to pastoral livelihood are increasingly stressed, this argument – rooted in Malthusian resource scarcity theory – views resource scarcity as a decisive driver of conflict rather than cooperation or innovation.<sup>12</sup> However, most researchers agree that the relationship between pastoralists and farmers is much more complex, with climate change and population growth representing just two significant, but not the only factors shaping the level of conflict and cooperation.<sup>13</sup>

Third, natural resources such as pasture and water play a crucial role in pastoralist – farmer conflicts in Eastern Africa.<sup>14</sup> While agricultural land has expanded continuously in recent decades, often at the expense of grazing areas, the radius of pastoral migration has increasingly been restricted and constrained.<sup>15</sup> At the same time, the volatility of pastoral livestock must be considered: In rainy years, pastoralists multiply their livestock, but – particularly during periods of drought, which are becoming more pronounced due to climate change – pastoralists increasingly turn to farmers' fields when pastures no longer yield enough fodder. Such conflicts over grazing and cultivation practices are fuelled by governmental land use politics. In Tanzania, the Land Act of 1999 and the Land Use Planning Act of 2007 have been decisive for the increase in conflicts between pastoralists and farmers.<sup>16</sup> From a spatial planning perspective, it can be argued that communal and state lands in Eastern Africa are increasingly being registered, codified, privatised, and territorialised through fences and walls.<sup>17</sup> This applies above all to intensively used agricultural land. In contrast, pastoral land often remains in collective ownership, and the demarcation of boundaries remains vague, not least because fencing is costly. Access to land is increasingly regulated or rendered impossible through processes that territorialise and enclose land and assign the corresponding rights. Collective entitlements to access and use are being called into question.<sup>18</sup> Above all, pastoralists, who need large areas of land for their livestock, are victims of this ongoing tendency of juridification, territorialisation, and privatisation of lands.<sup>19</sup>

Against this background, it is justified to ask whether pastoralism is, above all, a way of life that will sooner or later disappear. The argument is that modernisation offers pastoralists new opportunities that seem more attractive than the pastoral life. Modernity, which not only promises jobs but also education, health services, social security, entertainment, as well as a diversity of life and career pathways, is seen as an alternative to pastoralism, which is associated with economic risks, deprivation, and a physically demanding way of life.<sup>20</sup> The counter-narrative holds that for low-rainfall rangelands no land-use system more viable than pastoralism has yet been found.<sup>21</sup> This debate raises the question of the extent to which the offer of non-pastoral economic and living opportunities affects the lives of pastoralists in Eastern Africa. In this context, large, state-initiated infrastructure projects (e. g. transport corridors, pipelines, dams) or mining activities play a significant role by opening up regions to economic

development.<sup>22</sup> Such projects are generally viewed very critically by academia, as they are thought to deepen and multiply existing conflicts, exacerbate social inequalities, and worsen living and environmental conditions.<sup>23</sup> Other perspectives, however, emphasise the positive effects of such development interventions, particularly their capacity to create employment – including for unskilled workers – and their promise of modernisation and prosperity.<sup>24</sup> Infrastructure projects thus remain a matter of debate: On the one hand, it is argued that large infrastructure projects exacerbate existing conflicts; on the other hand, that these projects accelerate the dissolution of pastoral ways of life and economy.<sup>25</sup> Against this backdrop, this article examines the effects of the construction of the SGR railway line through Kilosa – a district widely recognised as a hotspot of conflict between pastoralists and farmers.

### **‘Kilosa Killings’**

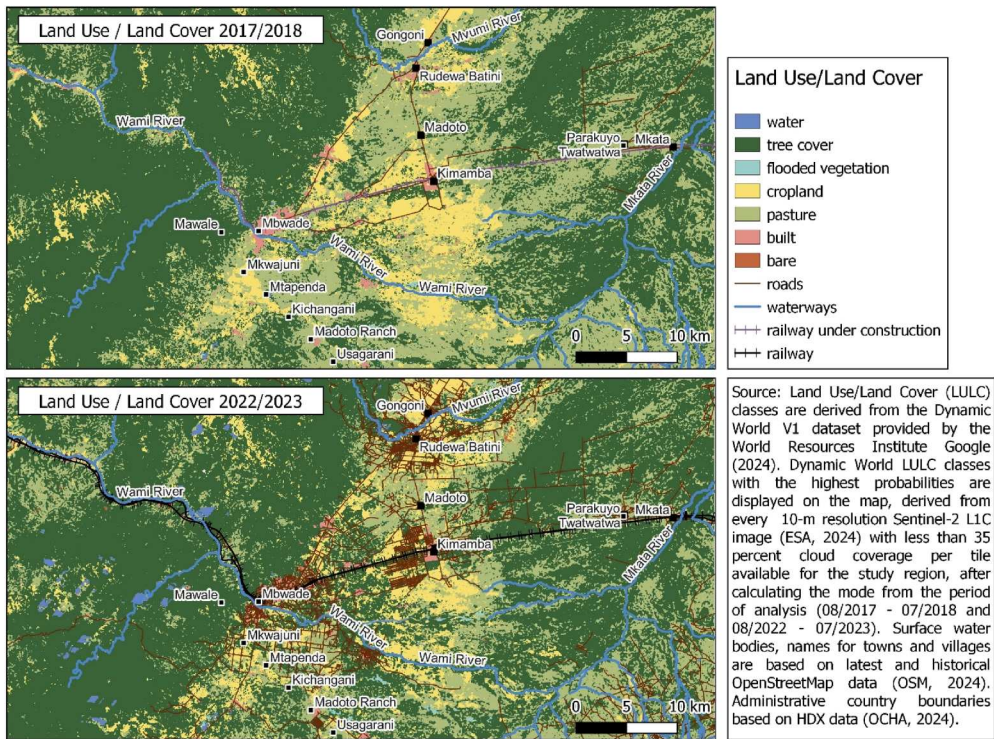
On 8 December 2000, 38 farmers belonging to the Kaguru and Saguru ethnic groups were murdered by Parakuyo pastoralists in Rudewa Mbuyuni village in Kilosa district. This event marked the dramatic peak of escalating violent conflicts between pastoralists and farmers that had been building up since the late 1960s. The ‘Kilosa Killings’ attracted attention far beyond Tanzania because of the sudden and brutal violence involved and came to epitomise what were perceived as irresolvable conflicts between pastoralists and farmers. Benjaminsen et al reviewed the ‘Kilosa Killings’ from the perspective of Political Ecology. Their work is the point of departure for our research and will therefore be outlined here.<sup>26</sup>

#### **(i) Pastoralism in Kilosa**

Around 1.5 million pastoralists live in Tanzania; most of them are ethnic Maasai or Datoga. While pastoralists are found across the country, the main pastoral areas are located in northern Tanzania, particularly in the regions of Arusha, Manyara, and Kilimanjaro. However, in the last decades, many pastoralists have lost their pastures due to eviction from national parks, the fencing off of farmland, the spread of urban centres and the appropriation of land by the government (e.g. the military), private companies and powerful individuals.<sup>27</sup>

Kilosa district, located in the Morogoro region, which borders the south of the Manyara region, is well known for conflicts between pastoralists and farmers. The district’s centre and west are under intensive agricultural use (see [Map 1](#)), where the ethnic groups of Kaguru and Saguru have been recorded as farmers since the nineteenth century.<sup>28</sup> In addition to subsistence farming, sisal plantations were established in Kilosa during the German and British colonial periods.<sup>29</sup> Some of these plantations have been used only extensively or have been abandoned since the 1960s. The far south of Kilosa district is part of Mikumi National Park, established in 1964.

The heartland of pastoralism lies on the Mkata Plains in north-east Kilosa. Bushland and open forest predominate the landscape and – unlike in the west and the centre of Kilosa district – intensive farming is not possible here due to water scarcity. Besides several smaller pastoral groups, such as the Wagogo, Barabaig, and Sukuma, who live in separate settlements, the majority of pastoralists in the area are Parakuyo. Daniel



**Map 1.** Socio-ecological situation of Kilosa.

Ndagala and Christian Jennings describe the Parakuyo (also known as Ilparakuyo) as a distinct ethnic group, although they share commonalities in pastoral livelihood and language (Maa) with the ethnic Maasai.<sup>30</sup> This is why the Parakuyo appear content with a vaguely Maasai identity when interacting with unfamiliar outsiders.<sup>31</sup> Since the nineteenth century, the Parakuyo have moved southwards from the Maasai Plains and have been present in Kilosa.<sup>32</sup> Later, particularly from the 1980s onwards, additional Parakuyo pastoralists migrated to Kilosa, prompted by the reduction of pastoral land in northern Tanzania.<sup>33</sup> Today, the Parakuyo are scattered between coastal Tanzania, the Central Plain and the Southern Highlands.<sup>34</sup>

Not only their pastoral livelihood, but also their ethnicity – including their own distinct culture and identity expressed in certain customs (e.g. language, clothing, ornaments) – distinguishes the Parakuyo from their farming neighbours. In Parakuyo's paternalistic society, men, particularly *Morans* (warriors) aged between 15 and 35, play a crucial role in herding cattle and ensuring village security. While *Morans* were armed with firearms three decades ago, they now deny possession of arms except spears and bows. Cattle breeding is deeply intertwined with Parakuyo pastoral culture, as in other Eastern African pastoral communities. The number of cattle signifies prestige within the community, which encourages the retention of large herds even during droughts, despite the high risk of loss. Traditionally, cattle are rarely sold because of their considerable cultural and economic value, as one interviewee put it: 'Cattle is everything to the Parakuyo.'<sup>35</sup>

Parakuyo pastoralists have been settled through the Tanzanian villagisation programme (Operation Vijiji) since the late 1960s, when the government sought to concentrate its population in Ujamaa villages.<sup>36</sup> The main Parakuyo villages are Parakuyo, Twatwatwa, Mawale, and Mbwade (see [Map 1](#)). After the former Mkata Experimental Ranch in the east of Kilosa was closed in the late 1970s, pastoralists expanded their grazing areas to the south and the east.<sup>37</sup> Beyond their grazing areas in Kilosa, Parakuyo pastoralists also migrate to other regions in Tanzania. Their migration patterns are primarily dictated by the annual rhythm of dry and rainy seasons. The main rainy season occurs in March, with a lighter rainy season in November. During the rainy seasons, the Parakuyo's grazing areas, characterised by gentle slopes, become submerged, allowing water to seep into the ground and ensuring sufficient grass availability for the months that follow. Towards the end of the year and the beginning of the next, however, these areas dry up, resulting in a shortage of fodder.

As a consequence, pastoralists migrate to neighbouring regions where intensive agriculture is practised, moving within the region (Dakawa, Kimamba, Rudewa, Mvumi, Mbwade, Mikumi) and beyond to locations such as Gairo, Mvomero, and Melela. During severe droughts, they may migrate as far as Kilindi in the Tanga region or Kongwa in the Dodoma region. Despite these migration patterns, the Parakuyo maintain a permanent settlement base and practice a flexible herding system, where *Morans* typically leave the village with the livestock – except young calves and milking cows – during the dry season to find pastures, while the women, young children, and older people stay in the villages.

#### (ii) Conflicts between Pastoralists and Farmers

Although conflicts between pastoralists and farmers in Kilosa date back to the 1960s, Benjaminsen et al.<sup>38</sup> argue in their analysis of the 'Kilosa killings' that the primary cause of the massacre was the government's implementation of new land rights rather than the consequences of climate change or environmental stress. The Village Land Act of 1999 and the Land Act of 1999 sought to formalise land tenure systems but inadvertently led to confusion. Pastoralists and farmers were often uncertain about which laws applied to which land (village land vs. reserve land vs. state land). Although these policies intended to promote agricultural development and secure land tenure, they often ignored customary pastoral land-use practices. As a result, pastoralists became increasingly marginalised, with their traditional grazing lands appropriated for agriculture or other development projects. The lack of clear and inclusive land governance mechanisms created an environment where conflicts over land became inevitable and ultimately culminated in the 'Kilosa Killings'.<sup>39</sup>

In addition, from the 1990s onwards, farmers in Kilosa increasingly shifted to water-intensive rice cultivation. This transition significantly affected the availability of water resources, exacerbating the challenges faced by pastoralists. Competition over water became a central issue, as diversion to rice paddies reduced water availability for pastoral use. This strained pastoralists' ability to sustain their herds and forced them to seek grazing land and water in areas designated for agricultural cultivation, thereby intensifying conflicts. During dry seasons, pastoralists entered cultivated land with their livestock without compensating the farmers.<sup>40</sup> Finally, state inaction played a central role in the outbreak of violence. The government failed to intervene effectively when farmers

accused pastoralists of repeatedly using their pastures without permission. Farmers believed that the pastoralists bribed government officers to ensure their inaction, allowing the situation to escalate unchecked. This perception of corruption and favouritism further fuelled animosities and contributed to the eruption of violence.<sup>41</sup>

In 2000, the conflict between pastoralists and farmers escalated rapidly. Pastoralists were armed and entered farmers' land by force, time and again, to graze their livestock. In response, the farmers established a *Sungusungu* militia, as illustrated by the following interview:

Farms and crops continued to be destroyed by livestock. However, when farmers reported incidents to the police, no action was taken. ... The farmers decided to form a traditional militia group known as *Sungusungu* for self-defence. ... This led farmers and livestock keepers to always carry guns and traditional weapons.<sup>42</sup>

The two sides present contradicting narratives regarding the escalation of violence and the 'Kilosa Killings.' While the Parakuyo present the massacre as an act of revenge after the *Sungusungu* had burned down their huts, the farmers claim that the pastoralists staged a deliberate ambush after the farmers confiscated their livestock. These divergent narratives highlight the deep-seated mistrust and animosity between the two groups, each viewing the other as the primary aggressor.<sup>43</sup>

The 'Kilosa Killings' certainly hardened the relationship between pastoralists and farmers, resulting in a complete loss of trust, the separation of the two communities, and a high number of conflicts reported to the police. Although the government had remained inactive in the run-up of the 'Kilosa Killings' it later identified pastoralists as the main troublemakers in the district. As a consequence, eight years after the massacre, the district government launched 'Operation Kilosa' (OKI) between January and March 2009 to remove and punish pastoralists who entered farmers' land. The operation began on 29 January 2009 and involved the seizure and transportation of Parakuyo livestock to distant cattle markets such as Pugu in Dar es Salaam. The aim was not only to auction the livestock but also to enforce the relocation of cattle and pastoralists, whose livelihoods are intrinsically tied to their herds. Transportation costs – ranging from TZS 600,000 (US \$240) to TZS 8,000,000 (US \$3,200) per trip – were to be borne by livestock owners, placing a substantial financial burden on pastoralists.<sup>44</sup> Despite these rigorous steps, OKI failed to resolve the conflicts by use of force.<sup>45</sup> After the OKI ended, the pastoralists swiftly returned to their grazing areas in Kilosa, and the conflicts between pastoralists and farmers re-emerged.

In January 2015, shortly before the construction of the SGR began, violence erupted again: 38 houses of the Parakuyo sub-village of Lujenge (part of the Mabwegere village) were burned down, and three people were killed. This time local elites from Kilosa town were accused of evicting the pastoralists in order to expand rice cultivation in the nutrient rich floodplains belonging to Parakuyo grazing land.<sup>46</sup> In 2018, Falanta and Bengesi<sup>47</sup>, based on a survey of 203 respondents, concluded that a persistent conflict constellation between pastoralists. The authors identified the interplay of '... socio-economic factors, environmental factors, overstocking, unethical behaviour, policy and regulatory deficiencies' as key drivers of the resurgence of conflict.<sup>48</sup> This raises the question of what has happened since 2018 to de-escalate the conflict. Two developments stand out: the establishment of joint peace committees and the construction of the SGR.

## Kilosa peace: peace committees and compensation

In September 2022, we began our field research in Rudewa Mbuyuni, the village where the ‘Kilosa massacre’ took place 22 years ago. Contrary to our expectations and the prevailing literature, we observed a scene of peaceful coexistence between farmers and pastoralists. Parakuyo women, dressed in traditional attire, walked from their hamlet Mbwade to Rudewa Mbuyuni to buy and sell goods, indicating an integration of pastoralists into the local economy. Local village boys and Parakuyo youth played billiards together in the village square, and there were no visible signs of hostility or animosity. The shrine commemorating the 38 murdered farmers is located at the northern end of Rudewa Mbuyuni, near the site of the massacre. Surprisingly, it appeared neglected and infrequently visited, suggesting that the killings had faded from the collective memory and were regarded as a distant, isolated event. The extent to which the massacre seemed to have been forgotten became evident in the fields behind the shrine. Here, Parakuyo pastoralists were grazing their cattle on harvested fields while engaging in a friendly chat with a farmer.

According to the Kilosa Police Station, reported conflicts still existed but had declined from 342 in 2018 to 269 in 2021 – with most disputes concerning grazing rights, water supplies, and land usage, but rarely escalating into direct violence.<sup>49</sup> Interestingly, our conversations with farmers revealed that conflicts with pastoralists were now considered less problematic and not very high on the agenda. Instead, farmers complained bitterly about a herd of wild elephants that had escaped from Mikumi National Park and caused extensive damage to agricultural land. The construction of the SGR railway line cut the elephants off from their trail back to Mikumi National Park.<sup>50</sup>

The formation of joint peace committees at the local level was a decisive response to the ‘Kilosa Killings’ and can be regarded as a significant reason for the decline in violent conflict between pastoralists and farmers. In 2004, local leaders in cooperation with the government authorities of the ward initiated these committees. In particular, the local government institutions realised that there was a need for a formal mechanism through which pastoralists and farmers could be brought together to mediate their differences. The peace committees consisted of members from both, pastoralist and farming communities and aimed to promote dialogue, conflict resolution, and peaceful coexistence. This joint effort proved instrumental in minimising tensions and preventing the violent escalation of conflicts.

The peace committees were created to function as associations responsible for mediation and conflict resolution in fringe areas between pastoralists and farmers alike. Such committees were established in sub-villages such as Mkwajuni, Mtapenda, Kichangani, and Madoto Ranch, and comprised mainly Parakuyo pastoralists and farmers from the Kaguru and Saguru ethnic groups. The peace committees usually consist of six members: three representatives from the farming communities and three from the pastoralists’ communities, elected directly by the village members of both groups. When the committee chair is a pastoralist, its secretary should be a farmer, and vice versa. The peace committees usually meet in village offices – either in that of the farmers or of the pastoralists. The committees deal primarily with emerging conflicts between the communities, which typically revolve around livestock and land use. The peace committees set the rules for grazing and the separation of pastoral and agricultural land, as the following statement by the chair of one committee illustrates:

First, our committee stopped the movements of pastoralists and their cattle from their designated areas to areas designated for farmers. The same rule applies to the farmers; they cannot farm in areas designated for pastoralists. This has helped to reduce conflict between these two communities.<sup>51</sup>

Generally, the rules set by the peace committees were accepted by both communities, as the following quotation shows:

Throughout my involvement in this committee, I have never witnessed extreme cases that involved fights. So far, people have observed the laid-down rules and regulations in order to avoid paying the fines when they are caught violating them.<sup>52</sup>

In addition, the peace committees deal with cases in which the agreed rules are not followed, particularly when livestock enters someone's farmland. Based on the extent of the damage, the peace committees decide on the amount of compensation. The usual solution is a payment in the form of a fine. The person at fault who allowed cattle to enter someone's farm must pay compensation corresponding to the damage caused.<sup>53</sup> In Mbwade village, for example, between January and March 2023, farmers reported eighteen cases. All cases were resolved through the payment of fines, which ranged between TZS 5,000 (US \$2) and TZS 40,000 (US \$16). In some cases, however, the affected landowner chose not to pursue compensation. In general, the peace committees have gained authority, and their decisions are accepted by the aggrieved and the perpetrating party.<sup>54</sup> However, in some cases, one of the conflicting parties did not agree. For example, the committee had recorded one pastoralist for trespassing his cattle seven times on farmers' land. It was reported that he did not pay all fines and sometimes refused, claiming he was not at fault. In rare cases in which the committees could not find a solution, the matter was referred to the police.<sup>55</sup>

The peace committees do not receive any financial support from government authorities or the communities. However, when fines are paid in conflict cases, a certain percentage is allocated to the peace committee for solving the conflict and to cover expenses, such as transport. Many of our interviewees reported that the peace committees were able to reduce tensions between farmers and pastoralists, as the following interview illustrates:

As we know, there are always a few people who tend to go against the rules and regulations, so when we find a pastoralist in an area designated for farmers' use, he has to pay a fine of TZS 50,000 [US \$20] for trespassing. When the cows have destroyed the farmer's crops, we bring the farmer and the pastoralist together to assess the damage caused. Then we ask the pastoralist to compensate the farmer for the damages caused by his cattle.<sup>56</sup>

In addition, a new arrangement between the pastoralists and the farmers has been put in place. At the time of writing, pastoralists pay farmers between TZS 50,000 (US \$20) and TZS 100,000 (US \$40) per season and hectare to use their harvested fields as pasture during dry season.<sup>57</sup> The general arrangement between farmers and pastoralists is as follows: Pastoralists are not allowed to enter the farmers' land until July, when the farmers have finished harvesting their crops.<sup>58</sup> In July, representatives of both communities meet to agree on the price of maize stalks and other crop residues. After harvesting, the farmers either sell or give the stalks to the pastoralists as fodder for their cattle. As the dry season progresses and crop residues are depleted, pastoralists may, during severe seasonal droughts, even purchase fodder such as maize bran and sunflower seeds from neighbouring farmers.<sup>59</sup> Summing up, the impression is that the new arrangements,

including the peace committees, have not only established certain grazing rule, but have also mediated a number of individual conflicts between the two communities. Our interviewees stated that, as a result, the overall security situation had improved significantly:

Since the existence of the conflict resolution committee, inter-ethnic conflicts are now resolved amicably. The committee has greatly helped because conflicts have decreased drastically.<sup>60</sup>

One Parakuyo elder who is chairperson of the peace committee at Mbwade village explained:

Violence in our community has significantly decreased due to the communication and respect that the committee fosters.<sup>61</sup>

This view was echoed by a female farmer:

We are now able to reside and engage in employment without continuous fear of conflict.<sup>62</sup>

A decisive reason for the decline in conflict and the emergence of peaceful coexistence was that ambiguities regarding applicable rules could be overcome through the establishment of peace committees and through the agreement by Parakuyo pastoralists to pay monetary compensation for using the farmers' fields as grazing areas during the dry season. However, this arrangement required Parakuyo pastoralists to access new financial sources of income to cover the costs of renting fields. The construction of the SGR, which we will discuss next, played a vital role in this regard.

### **The construction of the SGR – a turning point**

The Tanzania Standard Gauge Railway (SGR) intends to connect the port of Dar es Salaam on the Indian Ocean to Mwanza on Lake Victoria, with future extensions to Rwanda, Burundi, and the Democratic Republic of the Congo (DRC). A labour force of over 20,000 Tanzanians has been employed in the construction of this multi-phase project, conducted by the China Civil Engineering Construction Corporation (CCECC) and China Railway Construction Company (CRCC). The second phase, passing through Kilosa, was launched on 14 March 2018 and was finished in 2024. The Turkish company Yapı Merkezi oversees the construction in Kilosa, with local Tanzanians, predominantly Parakuyo and farmers from Kilosa, forming the bulk of the workforce.

The SGR project has provided temporary employment opportunities, particularly for local youth in functions such as drivers, security guards, and flagmen. This employment especially appealed to young men of the local Parakuyo community of Kilosa because it aligned with the masculine image of *Morans* in pastoral society. The Parakuyo dominated the security guard positions, ensuring construction work was not hampered by theft or vandalism. The guards were paid TZS 380,000 (US \$150) per month, with deductions for social security, under 12-month renewable contracts. Notably, the security staff for the entire railway construction between Dar es Salaam and Dodoma is primarily comprised of Parakuyo, recruited by Star Warriors Security Company Limited, owned by a Parakuyo businessman from the village of Twatwatwa in Kilosa. The CEO of the security company, Mainga Kalaita, noted during the interview:

Our company is particularly attracted to recruiting the Parakuyo because their vigilance, bravery, and discipline align with their cultural role as *Morans*, making them well-suited to meet the demands of security work, the working areas, and ensure smooth operations.<sup>63</sup>

The Parakuyo *Morans* see employment with SGR as a lucrative alternative to pastoralism, as noted by a Parakuyo security guard:

I was selected for the job after applying for six months. I was lucky to be hired to guard near my home.<sup>64</sup>

The employment at the SGR is highly competitive and requires proximity to seize opportunities quickly. The desire among young Parakuyo to work for the SGR while still following pastoral livelihoods indicates the economic attractiveness of these jobs.<sup>65</sup> Despite the overall positive perception of the SGR construction by the Parakuyo, it is notable that the Parakuyo village communities did not receive financial compensation for land, since the SGR was built on Reserve Land owned by the state. Even though some facilities were built in the villages, such as water ponds and pumps, dispensaries, schools, and access roads, community members complained about unfulfilled expectations. One village official stated:

Despite our requests for water ponds, wells, schools, and dispensaries, only one water pond was built in Parakuyo village.<sup>66</sup>

One major negative impact of the SGR railway line construction is that it has clearly divided the rangelands of the Parakuyo. While cattle could cross the railway line during construction, high and solid fences have prevented this since the railway became operational. There are far too few underpasses and bridges, which restricts pastoralists' access to the eastern rangelands of Mkata Ranch. This infrastructure barrier complicates traditional grazing patterns, posing challenges for the Parakuyo's pastoral practices.

The job opportunities from the SGR construction in Kilosa have had significant impacts on the pastoralist way of life of the Parakuyo. Most interestingly, the livelihood of the Parakuyo SGR-security guards still revolves around cattle breeding and pastoralism, which shape their self-understanding and cultural identity. The *Morans* who are employed with the SGR, are the breadwinners for their families. However, they still invest large parts of their monthly salary in purchasing cattle, as the following quotations show:

With my salary, I buy young steers and use some money for other requirements. Every month, I buy steers or goats, depending on family needs, and save money to buy cows. The best time to buy cattle is in the dry season when prices are lower.<sup>67</sup>

And another *Moran* states:

Much of my income is dedicated to meeting our daily needs and covering household expenses. The remaining money is allocated to buy cattle.<sup>68</sup>

Thus, one can argue that the construction of the SGR is indirectly stimulating the growing size of pastoralists' cattle herds, which contributes to the overgrazing of the pastures on the Mkata plateau.<sup>69</sup> Pastures cannot sustain the large herds during the dry season, prompting frequent movements within and outside the district. However, it seems that the salary from the SGR is substantial enough to rent harvested fields from surrounding farmers to feed cattle with maize stalks during the dry season.

The new job opportunities outside pastoral life have also fundamentally altered the relationship between the Parakuyo and their cattle. Previously, cattle held significant symbolic and prestigious value. In Kilosa during droughts, Parakuyo pastoralists preferred to see their cattle die rather than sell them on the market. The symbolic value of cattle was higher than the economic one. This has changed drastically, with many Parakuyo pastoralists now engaging in cattle trading as a business, as several interviews show:

I am employed as a security guard in the SGR. When I get my salary, I use the money to buy cattle during the dry seasons when they are sold at low prices between TZS 100,000 [US \$40] to TZS 150,000 [US \$60] and sell some during the rainy seasons for prices between TZS 500,000 [US \$200] and TZS 800,000 [US \$300].<sup>70</sup>

And another *Moran* states:

I normally buy cattle at a price of TZS 100,000 [US \$40] to 150,000 [US \$60] during the dry season and sell them at TZS 300,000 [US \$120] to 500,000 [US \$200] during the rainy season. One can sell one cow during the rainy season and buy four cows during the dry season.<sup>71</sup>

As both interviews underline, a drastic change in the self-imagining of the pastoralists has taken place. A strong symbolic relationship with the cattle, which previously led them to keep their cattle rather than sell them, has been replaced by an acceptance and adaptation of the terms of the market economy.

Another impact of the SGR construction is a shortage of cattle herders among the Parakuyo because most *Morans* we interviewed preferred to be employed with the SGR. Education has also gained importance, with many Parakuyo children now attending elementary school, which delays their involvement in herding until they are older.<sup>72</sup> This shift has necessitated the hiring of herders from other communities, mostly from the neighbouring Wagogo ethnic group, which is a small pastoralist community with fewer cattle. Often, young boys from the Wagogo pastoralists accompany a Parakuyo *Moran*. Recently, the Parakuyo have also begun hiring young men from surrounding farmers' communities to take care of their cattle. This change has had a significant impact on the livestock rearing system. Traditionally, all cattle were tended by young Parakuyo *Morans*, who received a head of cattle as compensation for their work after six months of herding. At the time of writing, herders from non-Parakuyo communities are more often paid in cash. One can also argue that the hiring of external labour for herding the cattle has not only changed the daily routines of the *Morans* but also fostered a cooperative atmosphere between the Parakuyo and the neighbouring communities engaged in herding and agriculture.<sup>73</sup>

The influx of SGR workers has raised demand for goods and services, particularly in villages such as Twatwatwa and Mbwade, which are close to the railway line. Such demand encouraged entrepreneurial activity in the Parakuyo community by driving shifts from a traditional subsistence economy towards employment and entrepreneurship. These ventures improved livelihoods and demonstrated the pastoralists' ability to diversify income sources and integrate them into a broader economic system while preserving their cultural heritage.<sup>74</sup> One pastoralist elder said:

Due to changes in life patterns, Parakuyo communities are no longer relying on one business of selling cattle, milk, meat, and beads. They are now diversifying into other businesses.<sup>75</sup>

This economic diversification included the establishment of small businesses (e.g. shops, *bodaboda*), house renting, and guest houses in the villages of Twatwatwa and Mbwade, linking the Parakuyo community to broader economic opportunities driven by SGR activities.<sup>76</sup> With the SGR, a small number of non-Parakuyo providing a wide range of services settled in the villages of the Parakuyo close to the railway line. These non-Parakuyo residents include food vendors, store owners, barbers, transportation providers (*bodaboda*), and civil servants such as teachers and healthcare personnel. Under Tanzanian land laws non-Parakuyo are prohibited from buying land in communal pastoral areas.<sup>77</sup> They have to lease properties from pastoralists, which creates additional income for the Parakuyo. Overall, the SGR and economic diversification have intensified connections between the Parakuyo and other communities, which they generally view positively. A Parakuyo woman told us:

Before, my life was mostly about taking care of the home. Now, with my work at the SGR, I am meeting new people, learning new things, and contributing to my family in ways I never could before. It's changed how people see me, and it's changed how I see myself. We are all learning to work together in new ways.<sup>78</sup>

The rise in business activity has created new opportunities particularly for Parakuyo women. Previously, they were largely confined to household tasks like cooking, fetching water, and raising children. With the construction of the SGR, women began establishing their own businesses, including small retail shops, food stalls, and other ventures. One Parakuyo woman shared:

The construction of the SGR project and the influx of workers has led to a more demand for food. As I earn more, I can meet my family's financial needs, including providing critical essentials like food and clothing for our children.<sup>79</sup>

A small number of Parakuyo women were also able to work directly on the SGR construction.<sup>80</sup> One female interviewee told us:

Other girls from this village and I have been granted permission by our families to participate in the project. Previously, we were restricted to staying within our households, venturing out only for essential tasks such as collecting water, firewood, and medicinal plants. However, nowadays, it is considered normal to move around freely. We are actively involved in the SGR project, conducting thorough inspections of our female colleagues at each security checkpoint. Several of us have established food stalls.<sup>81</sup>

Thus, the SGR's introduction has initiated socioeconomic changes in women's roles within the Parakuyo community.

With the SGR, everyday consumption practices among the Parakuyo have changed. Their traditional diet consisted exclusively of pastoral subsistence products – meat, milk, and animal products. Although some shifts in food habits had already begun, the consumer demands of the SGR workers introduced a diverse range of new food items (including French fries, rice, and beverages such as soda) into Parakuyo communities, which – as a side effect – also altered pastoralists' eating habits. A Parakuyo woman confirmed:

Unlike in the past, when Parakuyo ate mainly meat, milk, and animal products, today we eat rice and other starchy foods. We also farm maize and rice for food and buy food from local markets when our husbands are paid their salaries as security guards at the

SGR. At least now we don't depend only on cattle; we have alternative means of sustenance.<sup>82</sup>

Not only food items, but also new technologies entered pastoral society with the construction of the SGR. The spread of contemporary technologies such as smartphones facilitated greater interconnectedness and the adoption of novel customs within the Parakuyo community. Owing to income generated through employment by the SGR, many young *Morans* have acquired smartphones and actively use popular social media platforms such as TikTok, Instagram, and WhatsApp. The advent of connectivity has brought about new behaviours and lifestyles, including sharing of daily activities, engaging in wider social discussions, and even participating in digital commerce. Some Parakuyo now sell and purchase cattle via online transactions.<sup>83</sup>

Summing up, although cattle breeding remains the core economic activity of the Parakuyo and has even expanded due to income from working for the SGR construction, the overall economy of the Parakuyo has diversified. Changes in the livelihoods of the *Morans*, together with shifts in gender roles, have impacted the Parakuyo community's social structure. Traditional ideals and modern realities have increasingly blended, prompting a reassessment of what it means to be a Parakuyo man or woman in the current setting. The community itself has recognised these substantial socioeconomic changes and views them positively, as the following quotation shows:

Our community is changing in ways we never expected. The *Morans*, who were once solely focused on protecting the village and herding cattle, are now involved in new work. This has made them more open to working with others, including people from outside our community. The women, too, are stepping up in ways we didn't see before. It brings us closer together, even as our roles change.<sup>84</sup>

## Conclusion

The 'Kilosa Killings' which made the Tanzanian district of Kilosa notorious for protracted conflicts between pastoralists and farmers, appear as a historical event from the distant past, fully decoupled from the everyday realities of today's inhabitants of Kilosa – although the violence took place only 25 years ago and many people who were involved in this violent incident are still alive. At the time of writing, interactions between pastoralists and their farming neighbours seem to have entered a completely new chapter: The peace committees have emerged as an authority recognised and accepted by all sides for resolving conflicts between pastoralists and farmers. In addition, pastoralists have intensified their interactions with neighbouring communities by recruiting non-Parakuyo herdsmen, doing business and trade with SGR-workers and letting houses to foreigners. While three decades ago interactions between pastoralists and farmers were overwhelmingly defined by fierce conflicts about resources, at the time of writing, a variety of diverse activities – generally assessed positively – characterise their relationships. At the same time, the Parakuyo have maintained a high degree of social cohesion: Marriages are still endogamous, cultural norms and values are still shared, and everyday life still revolves around cattle breeding, which dominates the mindset of all Parakuyo.

The construction of the SGR, which has had a tremendous impact on the socio-economic livelihoods of the Parakuyo, has not softened the social kernel of the pastoral way of life. Quite the contrary, Parakuyo *Morans* have interpreted their employment as security guards as an affirmation of their outstanding warrior identity. They have invested their income from SGR in renting harvested fields from farmers during the dry seasons and have thereby contributed to a reduction in confrontations. It appears that all parties accept this system of financial compensation, which can hardly be reversed. At the same time, income from working with the SGR was so high that the Parakuyo were able to increase the size of their cattle herds, which places an extra burden on the environmental capacities of the pastures in Kilosa. Interestingly, the Parakuyo no longer view cattle predominantly as symbols of prestige but as an investment and economic asset.<sup>85</sup>

While the Parakuyo assess the overall socioeconomic change of their lives positively, prospects for the future appear rather concerning. On the one hand, the Parakuyo culture is traditionally structured rigidly by age and gender. Through employment with the SGR, the young generation of *Morans* earns considerably more than elders do, who traditionally hold the authority within the community. In addition, *Morans* gain knowledge of using new technologies and non-pastoral jobs that the elders do not have. In the long run, this may undermine the legitimacy of the elders' authority. A similar dynamic applies to gender relations. With the advent of the SGR, young women – who traditionally occupy a subordinated position in the Parakuyo society – have begun to emancipate themselves.<sup>86</sup> It is therefore conceivable that in the future, the lowest common denominator of Parakuyo identity will be the language and the economic activity of cattle-breeding, while all other social institutions will gradually change.

On the other hand, the socioeconomic equilibrium observed in Kilosa between 2021 and 2024 may collapse once the SGR construction is fully completed. While construction in Kilosa district was finalised in early 2024, work on the modern railway line towards western Tanzania will continue for several years. Most of the Parakuyo security guards have been ensured that they can continue to work for the construction company and will move westwards as construction progresses. However, once the SGR is fully completed, *Morans* may return home and face decisions about whether to continue pastoral life or not. If the extra income from the SGR ceases and no alternative income sources are available, the compensation arrangements with farmers will be difficult to sustain. In that case, Kilosa may enter a new phase of conflict, and memories of the 'Kilosa Killings' could be revived. From an ecological perspective, the Parakuyo would need to substantially reduce herd sizes to adapt to an environment whose carrying capacity has been exceeded.<sup>87</sup> However, it seems unlikely that developments can be reversed. Only some Parakuyo may be able to continue a pastoralist livelihood, while others will be compelled to migrate to the cities in search of jobs. We therefore conclude that infrastructure investments such as the SGR have brought peace to Kilosa for a while, but not in a sustainable manner.

Finally, it is necessary to consider the extent to which the Kilosa case is consistent with other mega infrastructure projects. In the Eastern African context, Kenya provides an instructive comparison. During roughly the same period, an SGR line from Mombasa to Narok was constructed, and the LAPSET corridor was initiated – an undertaking

that traverses the pastoral land of several ethnic communities in northern Kenya and has thus far only been implemented in rudimentary form. In both instances, conflicts with local populations emerged as a result of land speculation, evictions, and poor labour conditions during construction.<sup>88</sup> The plans for LAPSET even intensified inter-pastoralist conflicts, as grazing land became an increasingly contested object of speculation.<sup>89</sup> Consequently, a straightforward transfer of Kilosa's purported success factors – such as peace committees and the provision of employment opportunities for *Morans* – to other infrastructure projects would be inadequate, since the specific local context ultimately proves decisive for the trajectory of conflict.

## Notes

1. Benjaminsen et al., “Kilosa Killings”.
2. Enns, “Infrastructure Projects”; Lesutis, “Infrastructural Territorializations”.
3. Benjaminsen et al., “Kilosa Killings”.
4. Setrana and Adzande, “Farmer-Pastoralist Interactions”; Shettima and Tar, “Farmer-Pastoralist Conflict”.
5. Thébaut and Batterbury, “Sahel pastoralists”.
6. Adebayo et al., “Indigenous Institutions”; Babiker, “Resource Competition and Conflict”; Catley et al., “Development at the Margins”.
7. Lenshie and Jacob, “Nomadic Migration”.
8. Sivini, “Resistance to Modernization”.
9. Ripkey et al., “Climate Variability”.
10. Askew & Odgaard: “Lions of Lesoit”, 222.
11. On Climate, see Ericksen et al., “Climate Change in Sub-Saharan Africa”; also on population growth see Bollig and Lang, “Demographic Growth”.
12. Scarcity theory, see Homer-Dixon, “Environment, Scarcity and Violence”; also see Allouche, “Sustainability and Resilience”.
13. For Researchers, see McGuirk and Nunn, “Nomadic Pastoralism”; for conflict and cooperation: Schareika et al., “Critical Transitions”.
14. Flintan, “Prevent Land Use Conflicts”.
15. Walwa, “Growing Farmer-Herder Conflicts”.
16. Walwa, “Land Use Plans”.
17. Greiner, “Guns, Land, and Votes”.
18. Lesorogol, “Transforming Institutions”.
19. Galaty, “Land Grabbing”.
20. Seitz, “Beyond Pastoralism”.
21. Little, “Future of Pastoralism”.
22. Bachmann and Schouten, “Infrastructure as Peacebuilding”.
23. Academic criticism includes Lesutis, “Techno-Politics of Differentiation”; and Kallianos et al., “Infrastructural Harm”; and Enns and Bersaglio, “On the Coloniality”. On worsening living conditions see Peters, “Inequality and Social Conflict”.
24. Palmer, “Skills for Work?”.
25. Flyvbjerg et al., “Delusion and Deception”.
26. Benjaminsen, “Kilosa Killings”.
27. Brockington, “Conservation, Displacement and Livelihoods”.
28. Benjaminsen, “Kilosa Killings”.
29. Jackson, “Visions”.
30. Ndagala, “Pastoralists”; and Jennings, “Scatterlings of East Africa”.
31. Jennings, “Scatterlings of East Africa”.
32. Galaty, “Maasai Expansion”; and Benjaminsen, “Kilosa Killings”.
33. Greco, “Village Land Politics”.

34. Jennings, “Scatterlings of East Africa”.
35. Interview with a Parakuyo elder, Parakuyo village, 14th July 2022.
36. Freyhold, “Ujamaa Villages”.
37. Benjaminsen, “Kilosa Killings”.
38. Ibid.
39. Ibid.
40. Ibid.
41. Ibid., 45.
42. Ibid.
43. Ibid.
44. Massoi, “Land Conflicts”.
45. Ibid.
46. IWGIA, “Ethnic Violence”.
47. Falanta and Bengesi, “Drivers and Consequences”.
48. See also Nyamhanga et al, “Village land governance”.
49. Falanta and Bengesi, “Drivers and Consequences”, 23.
50. Interview with a farmer, Rudewa Mbuyuni, 15<sup>th</sup> October 2022.
51. Interview with a Parakuyo elder, Chairman of the Committee, Mbwade Village, 16<sup>th</sup> April 2023.
52. Interview with a farmer, Mbwade village, 16<sup>th</sup> April 2023.
53. Interview with a member of a peace committee, Mbwade Village, 16th April 2023.
54. Interview with a Parakuyo elder, Mbwade village, 16<sup>th</sup> April 2023.
55. Interview with the chairman of a peace committee, Mbwade Village, 16<sup>th</sup> April 2023.
56. Interview with a Parakuyo elder and chairman of a peace committee, Mbwade Village, 16<sup>th</sup> April, 2023.
57. Temporary lease is a common practice in Kilosa which is in line with the 1999 Tanzanian Land Act. See Nyamhanga et al, “Village Land Governance”.
58. Interview with a Parakuyo *Moran*, Twatwatwa Village, 7<sup>th</sup> October 2023.
59. Interview with a Parakuyo pastoralist, Parakuyo Village, 7<sup>th</sup> October 2023.
60. Interview with a peace committee member, Mbwade Village, 16<sup>th</sup> April, 2023.
61. Interview with the chairman of a peace committee, Mbwade Village, 16<sup>th</sup> April, 2023.
62. Interview with a female farmer, Mbwade Village, 10<sup>th</sup> April 2023.
63. Interview with Mainga Kailaita, Star Warriors Security Company Limited, Head Quarter Office, Morogoro, 19<sup>th</sup> April, 2024.
64. Interview with a Parakuyo *Moran*, Parakuyo Village, 30<sup>th</sup> June 2023.
65. Interview with a Parakuyo elder, 10<sup>th</sup> February 2023, Parakuyo Village.
66. Interview with a village executive officer, Parakuyo Village, 7<sup>th</sup> October 2023.
67. Interview with a Parakuyo *Moran*, Parakuyo village, 30<sup>th</sup> June 2023.
68. Interview with a Parakuyo *Moran*, Mbwade village, 10<sup>th</sup> February 2023.
69. Lind et al., “Pastoral and Post-Pastoral Rangelands”.
70. Interview with a Parakuyo *Moran*, Mbwade Village, 16<sup>th</sup> April 2023.
71. Interview with a Parakuyo *Moran*, Twatwatwa Village, 14th March 2023.
72. In cases where families cannot afford to pay herders, daughters step in as herders, providing them with more responsibilities but denying them the opportunity to continue formal education.
73. Interview with a Parakuyo pastoralist, Parakuyo, 15th March 2024.
74. Kisoza, “Local Institutions”.
75. Interview with a Parakuyo elder, Mbwade Village, 16<sup>th</sup> April 2023.
76. Interview with Parakuyo elder, Mbwade Village, 16<sup>th</sup> April 2023.
77. Walwa, “Land Use Plans”.
78. Interview with Parakuyo *Moran*, Parakuyo Village, 10<sup>th</sup> February 2023.
79. Interview with Parakuyo Woman, Mbwade Village, 24<sup>th</sup> April 2023.
80. In the SGR construction women are underrepresented, and the majority of women are employed in unskilled occupations. In Lot 1 Dar es Salaam to Morogoro

(Kilosa), there was a total of 1,871 personnel, with an estimated 200 of them being female. Lot 2 Morogoro to Dodoma comprised 4,723 individuals, including 309 females.

81. Interview with Female Parakuyo, Parakuyo Village, 20<sup>th</sup> December 2023.
82. Interview with Female Parakuyo, Mbwade Village, 16<sup>th</sup> April 2023.
83. Interview with Parakuyo *Moran*, Parakuyo Village, 5<sup>th</sup> August 2023.
84. Interview with Parakuyo pastoralist, Parakuyo Village, 15th March 2024.
85. Scoones, “Perspectives on Agrarian Change”.
86. Massoi, “Gender Roles”; Brockington, “Women’s Income”.
87. Kitasho et al., “Adaptive Capacity”.
88. Mkutu, “Left in the Dust”; Enns, “Infrastructure Projects”; Lesutis, “Infrastructural Territorializations”.
89. Mkutu, “Anticipation”.

## Acknowledgments

We are very thankful for the extremely helpful and stimulating comments by two anonymous reviewers, which contributed strongly to an improvement of this article. In addition, we like to thank our colleagues at Mzumbe University, at the Bonn International Centre for Conflict Studies (bicc) and in the CRC 228 for their great comments.

## Disclosure statement

No potential conflict of interest was reported by the author(s).

## Funding

This article is the result of research done in the Collaborative Research Center [SFB TRR 228] Future Rural Africa, generously funded by the Deutsche Forschungsgemeinschaft (DFG). The funding agency had no involvement in the research design and writing of the article. We also like to thank the University of Bonn for generously funding the open access fees of this article.

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