POLICY NOTE

Evidence of the negative impact of regulatory changes, including GN417, on community-based forest management, with recommendations for enhancing CBFM's contribution to the national economy

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Summary

Recent regulatory change has caused a significant reduction in employment and revenue to community-based forest management (CBFM) areas from sustainable charcoal. The change is driving up deforestation and undermining efforts to enhance the value of the forestry sector. Regulatory amendments are needed to get community forestry back on track.

Introduction

Tanzania's Forest Act (2002) grants communities the right to manage forests on village land as 'village land forest reserves' (VLFRs). Village Land is land that is under the authority of Village Councils, as defined in the Village Land Act (1999). Between 2013 and 2022, a pilot project supported 30 villages in Morogoro Region to integrate sustainable charcoal production into the management of their VLFRs. Based on a 24-year harvesting cycle, communities allocate up to 30% of the forest in their VLFRs to sustainable charcoal, with the remaining 70% set aside for protection and selective timber harvesting. Communities set annual charcoal production quotas according to the ecological limits of their forests.

By mid-2019, 1,400 people were employed in sustainable charcoal production in these villages. Community revenues from charcoal fees plus producer incomes reached TZS 1 billion. Communities used the fees to invest in forest management and local development projects including education, health and infrastructure. Communities and forests were both benefiting. However, in May 2019, the Forest (Sustainable Utilization of Logs, Timber, Withies, Poles or Charcoal) Regulations, (Government Notice 417) came into effect, causing the collapse of the sustainable charcoal model and lost revenues to communities of more than TZS 2.3 billion (US$ 1 million) since its enactment (Figure 1).

This policy note explores why the sustainable charcoal model has been affected by regulatory changes and offers recommendations on resolving the situation. The policy note is based on extensive consultation with government (central, regional, district and village), lawyers, charcoal producers and traders; literature review; and economic analysis.

The legal basis for sustainable harvesting in Village Land Forest Reserves

The Forest Act 2002 grants communities the '*right to … use and harvest the produce of the forest* [VLFRs] *jointly with all other members of the village, in a sustainable manner in accordance with the terms of any village land forest management plan, by-laws, rules, agreements or customary practices* (40 (a)); and *the duty to pay tax or other levy imposed by the village council to assist in defying the annual costs of managing and developing the village land forest reserve* (40(f)).

Before GN 417, Village Councils were empowered to establish and implement harvesting in VLFRs, and to decide on fees. Harvesting rules were set out in VLFR management plans, and the Village Council agreed on fees. The Forest Act empowers Village Councils to issue harvesting permits and set fees, including for charcoal (Section 49(6) & 50(1)). With the intention of supporting communities to benefit from their VLFR, the Forest Act also exempts communities from paying royalties to Central Government, with the statement '*78 (3) No royalties shall be required for the harvesting or extraction of forest produce within a village forest reserve or a community forest reserve by the resident of the village or the members of a Group as the case may be unless such a requirement is specifically provided for any agreement under which they are managed*.' The Forest Act provides communities with the legal basis to manage and benefit from their VLFRs. It supports communities to retain forest on village land, and provides a way for forests to contribute to rural development and the national economy.

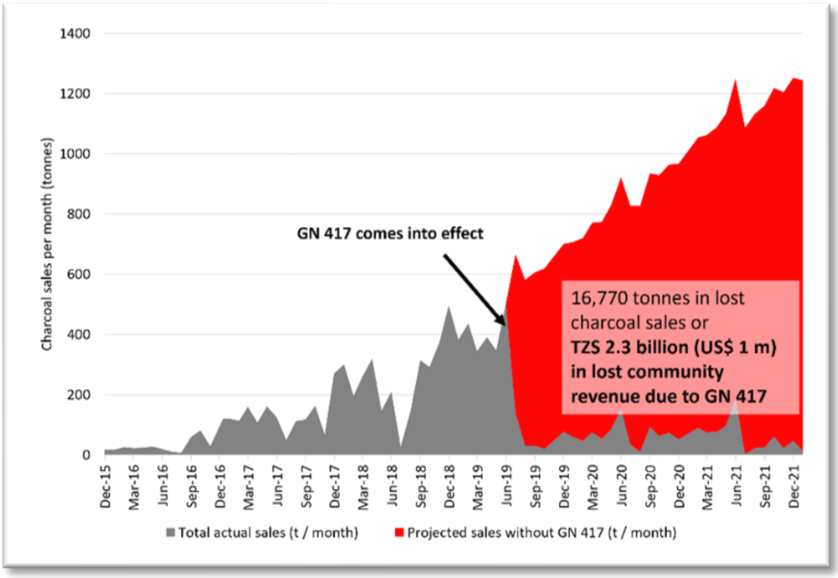


Figure 1. *Monthly sustainable charcoal sales in 30 villages in Morogoro Region between December 2015 and December 2021 (area in grey), showing the collapse in sales following the introduction of GN 417 in mid-2019. The area in red shows projected sales without GN 417, based on the sales growth rate before mid-2019. The area in red represents lost revenues due to GN 417. Losses shown in Fig 1 only include revenue from production fees. Producer incomes also collapsed, with further losses to the communities.*

How GN417 has affected CBFM

Regulatory change since 2019 has caused two key issues:

Issue 1. Requiring villages to set higher fees has made sustainable charcoal from VLFRs too expensive to compete with other charcoal

The requirement that villages set their charcoal fees to be equal with government royalty rates has meant that CBFM charcoal is no longer economically viable. Before GN 417, villages could charge charcoal fees according to their circumstances. For example, distant villages with high charcoal transport costs could lower their fees to attract buyers.

Between 2015 and May 2019, villages charged an average fee of TZS 140 / kg of charcoal (range: TZS 33 – TZS 221 / kg). With GN 417, communities must charge TZS 250 / kg, in line with GN 255 of 2017 and GN 59 of 2022. Since villages have had to align their fees with government rates, traders have stopped buying charcoal from the VLFRs and charcoal revenues have collapsed. Effectively, GN 417 has forced communities to price VLFR charcoal out of the market. If fees are paid at the full government rate, VLFR charcoal becomes much more expensive than charcoal from non-VLFR forests.

In some cases, faced with the higher village government fees, traders negotiated to reduce the amount paid to the producer from ~ TZS 8,000 to ~TZS 5,000 / 50 kg bag. However, the lower price does not cover producers' labour and direct costs. Many charcoal producers became discouraged and abandoned the sustainable charcoal enterprise.

How did GN 417 change royalty rates for VLFRs?

Before GN 417, the rate for fees payable on forest products, as prescribed in government regulations, was only applied to products from Government Forest Reserves and General Lands. It was not used for products from Village Land Forest Reserves. Instead, villages set their VLFR forest produce fees, as permitted in the Forest Act 2002 (49(6)). Then, the Forest (Sustainable Utilization of Logs, Timber, Withies, Poles or Charcoal) Regulations 2019, also known as Government Notice 417 (GN), said that forest produce from VLFRs must also follow the government rates. The regulations state:

7.-(1) A person shall not be considered to be granted a licence under these Regulations, unless such person: (f) has paid the appropriate fees as prescribed in the Forest Regulations, 2004.

This means that charcoal will only be considered as being licensed if a fee has been paid at the rate set through the 2004 Forest Regulations, and later amendments. The most recent amendments (GN 255 of 2017, GN 59 of 2022) set the charcoal rate at TZS 250 / kg. Compared with previous amendments, GN 59 of 2022 further embedded the requirement for CBFM areas to follow the rates set in the regulations, by changing the scope of the fees and tariffs to include all 'Forest reserves and general lands'. Previously the scope of the fees had been limited to '*Government* Forest Reserves and General Lands' i.e. excluding Village Land Forest Reserves.

Case Study: Sadick Kondo from Matuli Village, Morogoro District

"Revenue collection of Matuli village dropped since the GN 417 Forest Regulations. Since GN 417, traders do not come to our village to buy charcoal. Traders complain that the costs of buying sustainable charcoal are too high and, as a result, they get no profit from their business, contrary to the situation before GN 417. Previously, the village government charged a royalty of TZS 7,000 for one bag of charcoal but since GN 417 was introduced, the royalty rose to TZS 12,500. In the 2018/2019 period when the royalty was TZS 7,000 the village collected about TZS 50 million but after the changes introduced by GN 417, in the 2020/2021 period, the village only collected TZS 10 million. This situation is the same even in other villages and this has reduced the morale of community members to continue managing their forests."

Case Study: Eliasi Kato from Maharaka Village, Mvomero District

"The price directive as introduced by GN 417 has affected implementation of forest management activities in Maharaka village. A royalty rate of TZS 12,500 per 50 kg bag of charcoal has meant that traders can no longer afford the cost of transporting charcoal from the charcoal production area (forest management unit (FMU)) to the main road, due to the poor road conditions. Previously the village set the royalty rate in consideration of Maharaka's poor road condition so as to attract traders to come to the village. Since the establishment of GN 417 no trader has visited the village to buy sustainable charcoal. This discourages sustainable charcoal producers from continuing to produce charcoal in a sustainable way.

If the royalty rate is the same for all charcoal, why does it make VLFR charcoal so much more expensive?

Under the sustainable charcoal model, communities were highly effective at revenue collection. In contrast, MNRT (2021) describe government revenue from charcoal as 'meagre'. **Government data indicate that, out of a TZS 2 trillion annual trade, only TZS 9.9 billion is collected in charcoal royalties. This is equivalent to an average royalty rate of TZS 5.2 / kg for non-VLFR charcoal, compared with the rate of TZS 250 / kg set in GN 255**. Only 2% of charcoal revenues are collected from non-VLFR charcoal (Box 1). High rates of royalty evasion mean that the price of non-VLFR charcoal reflects an effective average royalty rate of TZS 5.2 / kg, while charcoal from VLFRs must cover TZS 250 / kg. This makes VLFR charcoal much more expensive (Figure 2). Before GN 417, communities had adjusted for this by reducing their fees. With GN 417, this adjustment is no longer possible. The overall price has increased, and traders are no longer interested. Or, traders have tried to pay the same price while making the producers absorb the additional cost. In this case, the producers have lost interest. The market has broken down because the high fees mean that the charcoal producers and the charcoal traders can no longer agree on a fair price, in the context of a trade dominated by charcoal that is effectively royalty-free.

Case Study: Charcoal Trader, Kudra Ally

The uniform charcoal royalty rates introduced by GN 417 have made many traders stop buying charcoal from VLFRs. This is because villages with VLFRs are stricter about the weight of charcoal bags than non-VLFR villages. Many traders, with little capital, have failed to continue with the charcoal business as the royalty fees were increased by more than 40% in many VLFRs. A few traders are still struggling to do business with charcoal from VLFRs, but only in villages with good road access and where the producers have agreed to be paid less than before GN 417. The number of willing producers has fallen. This increases the investment cost for traders as the production time is prolonged. However, some traders still buy a few bags per year when they can get a higher price by selling directly to consumers. Previously, the charcoal traders sold the VLFR charcoal wholesale to charcoal yards. They could make many more trips per year to buy and sell charcoal.

Box 1. Charcoal royalty collection rates from non-VLFRs

The government reported that the value of the charcoal trade is TZS 2,056,771,556,434, of which TZS 9,903,475,000 is the value of royalties currently collected from non-VLFR forests (MNRT 2021, p 26, Table 6.) In the same report, the total volume of the charcoal trade is estimated at 1,895,248 tonnes / yr (1.89 billion kg) (MNRT 2021, p 23).

Dividing the royalties (TZS 9.9 billion) by the volume (1.89 billion kg) gives an average collection rate of TZS 5.2 / kg, or TZS 261 / 50 kg sack.

If royalties were collected on all 1.9 million tonnes, the royalties should have been ~TZS 474 billion / year, i.e. missed royalties are equal to ~TZS 463 billion / year, giving a royalty capture rate of 2% (TZS 9.9 bn in collected revenues / TZS 474 bn in revenues due).

The Contribution of Forest Sector to the National Economy

Table 6. Aggregate gross value-added of charcoal along chain

S/no	Charcoal value chain node	GVA (TZS)
1	Producers	284,287,234,050
2	Transporters/traders	337,354,179,600
3	Wholesalers/retailers	1,425,226,667,784
4	Government royalty for charcoal from general land and central government (TFS, 2019)	9,903,475,000
	Total chain value added (TZS)	**2,056,771,556,434**

Source: Ministry of Natural Resources and Tourism 2021. The contribution of forest sector to the national economy. p. 26

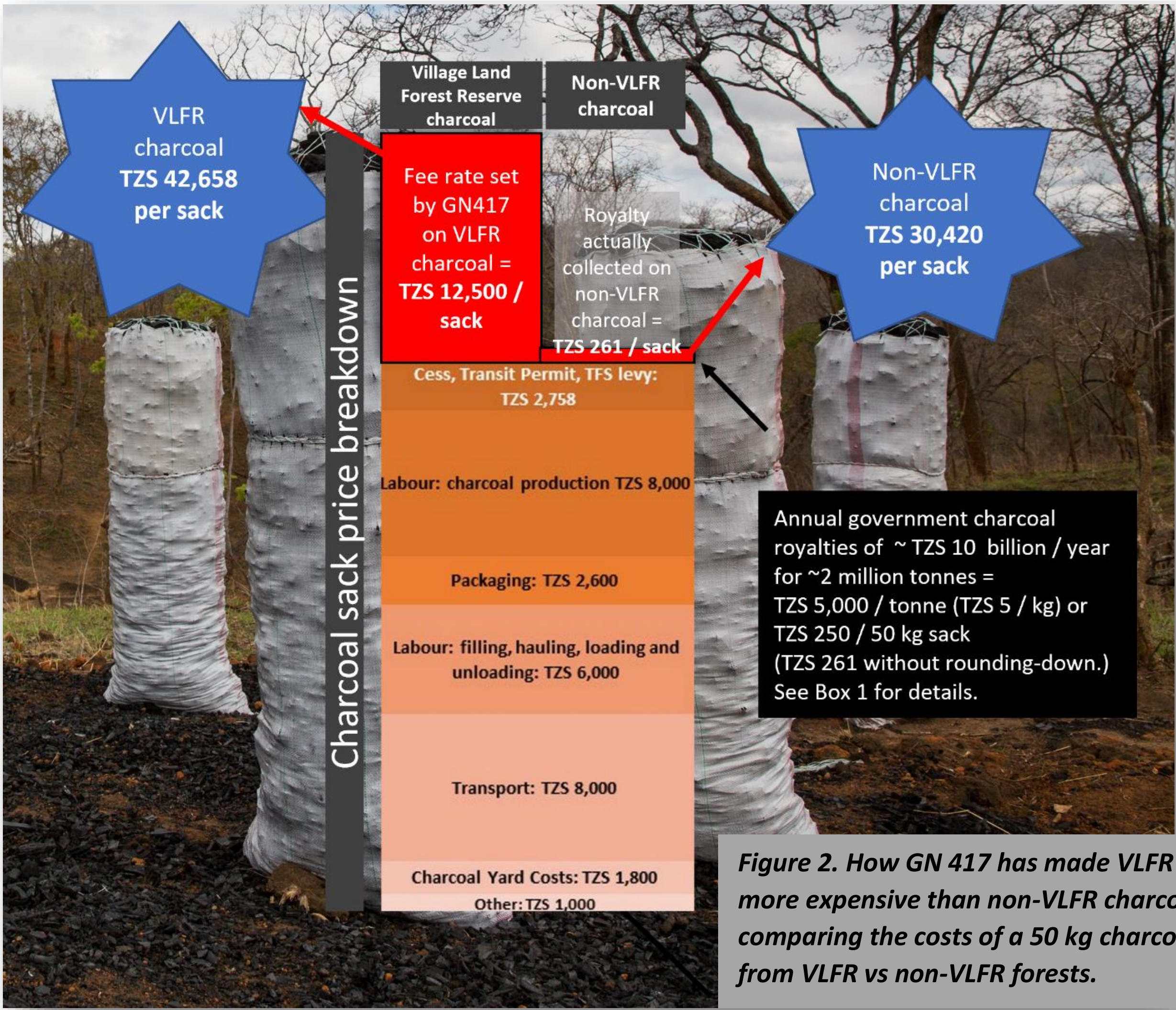


Figure 2. How GN 417 has made VLFR charcoal more expensive than non-VLFR charcoal, comparing the costs of a 50 kg charcoal sack from VLFR vs non-VLFR forests.

Price breakdown for a 50 kg charcoal sack, comparing charcoal from VLFR and non-VLFR forests

Figure 2 shows the cost breakdown for a sack of charcoal produced in Kilosa District and transported to Dar es Salaam. Values are based on consultation with traders, producers and local government in Kilosa District in April 2022. Costs vary between villages, charcoal production site and time of year.

In Kilosa, the costs of producing and transporting a sack of charcoal from a VLFR are approximately TZS 42,658 / 50 kg sack, including fees. Since GN 417, the charcoal fee of TZS 12,500 / sack comprises 29% of the total cost. This compares with non-VLFR charcoal where the average royalty that is collected is only TZS 261 / 50 kg sack or 0.9% of total cost (based on data from MNRT 2021. See Box 1). By requiring that VLFR charcoal pays a higher royalty than is collected on non-VLFR charcoal, GN 417 has made VLFR charcoal economically uncompetitive. Average wholesale prices in Dar es Salaam range from TZS 38,000 / 50 kg sack in the dry season to TZS 45,000 in the wet season. If the full royalty rate is paid, traders risk making a loss.

The charcoal trade is sensitive to royalty rates because the charcoal fee comprises 29% of the total cost and is the largest single item. For charcoal from non-VLFR areas where the royalty capture rate is only 2% (see Box 1), traders can afford to sell at a lower price while still making a profit. This is why GN 417 has had such a devastating effect on sustainable charcoal from VLFRs. If communities could continue to set charcoal fees to reflect market conditions, trade could rapidly resume.

Note that, in the example above, fixed costs including yard costs and trader licences are calculated to assume sales of 4,000 bags / year. Per trip costs are calculated assuming approximately 150 bags per trip.

Issue 2. The transfer of the authority to issue charcoal permits from village to district level limits villages' trading options and causes delays.

As a result of GN 417, the authority to issue charcoal production licences has shifted from the village to the district. GN 417 grants the District Harvesting Committee (DHC) the authority to approve charcoal production licences for VLFRs. This contrasts with the Forest Act 2002, which gives the Village Council the authority to issue harvesting permits (49(6)). Before GN 417, licences were issued by the Village Council, and information on the licences was shared with the district. One problem arising from this change is that a village may have only one or two approved traders per year. In the absence of competition, these one or two approved traders can demand a low price from the village-level producers. Market forces of supply and demand are distorted by the monopolistic or oligopolistic market structure that has been created. For example, in 2020, producers reported that traders in Kilosa District were offering only TZS 5,000 per 50 kg bag, compared with TZS 8,000 before GN 417. With only one or two pre-approved traders to choose from, producers are forced to sell at the low prices, or leave the trade. Some traders put pressure on producers to exceed the official bag weight, effectively reducing the unit price. In other cases, the approved trader(s) does not turn up and no sales can be made. No alternative trader can be approved until the next DHC meeting the following year.

Reduced trading time has been another impact of requiring DHC licence approval. Licences run from July to June. If the DHC only meets in late July or August, the start of production is delayed by one or two months and producers will miss the peak dry-season production period, as occurred in Kilosa in 2020 (Kilemo & Nyagawa 2021). This results in significant lost trading time. Delays are caused by late release of funds for DHC meetings, difficulties in securing the availability of the District Commissioner, or late submission of documents by Village Executive Officers. Communities in Morogoro District have sometimes had to rely on NGOs for information about DHC meetings rather than being invited to participate by the District Forest Manager. Overall, GN 417 has weakened communities' negotiating and marketing options, resulting in fewer sales. The delays and the increased administrative costs erode financial sustainability.

The impact of GN 417 on deforestation

Higher revenues are associated with lower deforestation. Between 2016 and 2021, the average annual deforestation rate in the VLFRs of the 30 Morogoro Region villages participating in the sustainable charcoal pilot project was ~1.4%, in those villages that received little or no royalty income. In contrast, the average annual deforestation rate was only 0.7%, in those villages with the highest average annual royalty incomes. Forests on village land in Tanzania are under intense pressure from agricultural expansion. The halving of the rate of forest loss for communities able to valorise their forest resources highlights the importance of a policy environment supportive of forest-based enterprises in VLFRs. By reducing revenues to VLFRs, the new regulations contribute to increased deforestation in two ways:

1. **There is less money available for forest management.** As outlined above, GN 417 has reduced revenues to VLFRs. There is less money to pay for patrols, boundary-marking and other management costs, resulting in more deforestation.
2. **There is less economic incentive to allocate the land to natural forests.** The collapse of charcoal revenues makes it less attractive to allocate land to forests. If the land is not delivering an economic return when it has forests on it, it is rational to convert it to another land use, usually agriculture.

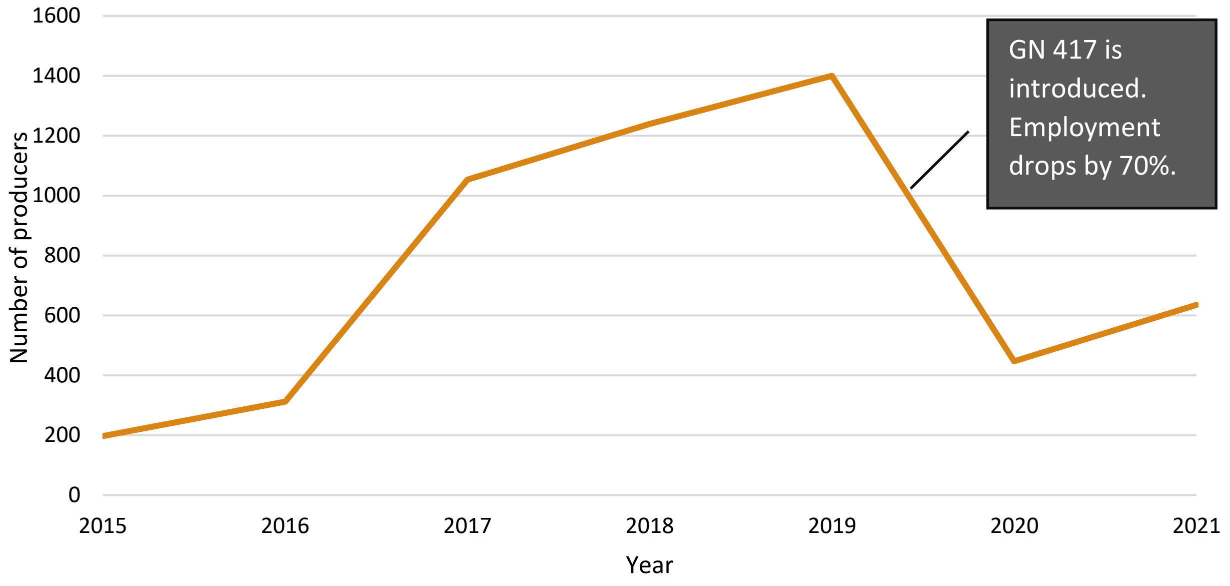
How did GN 417 change communities' right to select traders?

Before GN 417, villages were empowered to select traders for forest produce from VLFRs. Due to GN 417, this authority was transferred to the District Harvesting Committee:

7. (2) A person intending to apply for a licence for felling trees for … charcoal production shall: … (c) in the case of village forests areas, submit an application to the respective Village Executive Officer who shall submit the same to the District Forest Officer.

(3) The District Forest Manager or the District Forest Officer shall submit the applications to the District Committee for consideration, approval or otherwise.

Figure 3. Employment: number of active sustainable charcoal producers in Morogoro Region CBFM areas 2015 - 2021



Implications for the forestry sector's contribution to the national economy

The collapse of the sustainable charcoal model undermines an essential opportunity for the forestry sector to boost its contribution to the national economy. Community forestry has been effective in collecting revenue. Transparency in the revenue-collection system provided a robust way to assess the value of the charcoal trade. In addition, by investing VLFR charcoal revenues in improved social services, improvements in communities' education and health outcomes could be directly attributed to the forest sector. In 2018, there were 43 charcoal-financed community development projects worth TZS 229 million underway in Morogoro. Since GN 417, the number of active projects has dropped to 13 (Fig. 4).

Sustainable charcoal has provided employment, especially for youth. Since GN 417, the number of sustainable charcoal producers has fallen from 1,400 in early 2019 to 635 by 2021 (Figure 3). By strengthening the governance of the trade, sustainable charcoal was also improving working conditions for producers.

The shift to a less favourable regulatory environment for CBFM also undermines the confidence of development partners to invest in the sector, and risks wasting donor funds.

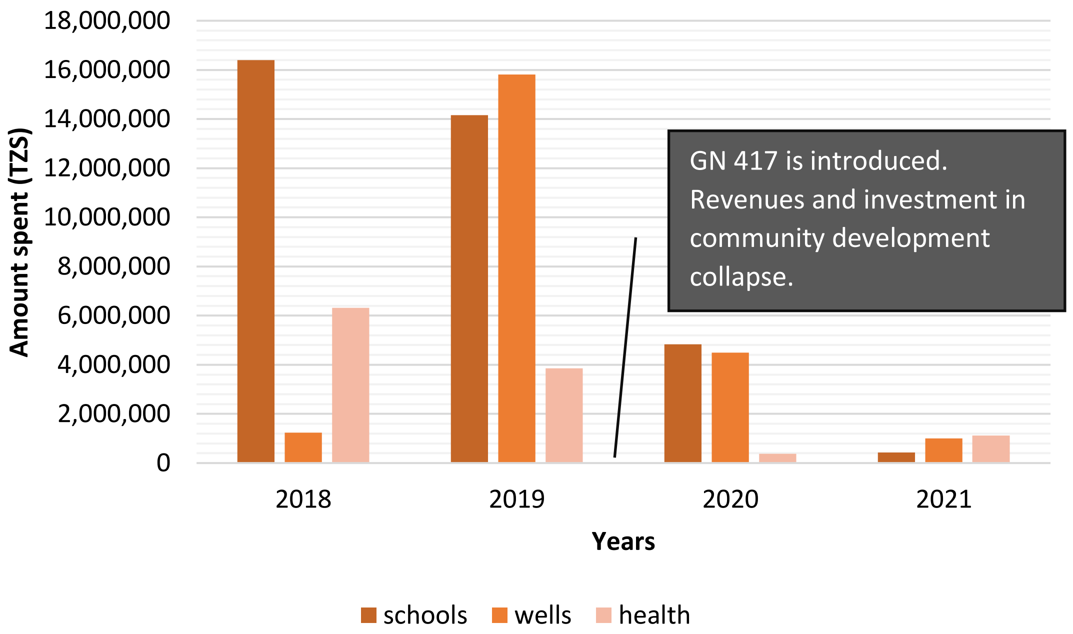


***Figure 4.** Expenditure on community development projects using community revenue from sustainable charcoal, in three CBFM villages in Kilosa District before and after GN 417.* Source: Hepelwa and Mrema 2021.

Discussion

Sustainable charcoal helps to reduce deforestation. A supportive regulatory environment is needed.

Most deforestation in Tanzania occurs on village land. The National Forest Policy establishes community-based forest management as the policy tool for the sustainable management of forests on village land. To reduce deforestation on village lands it is essential that CBFM functions effectively and is scaled-up to additional areas. Many communities with VLFRs have struggled to pay management costs. The sustainable charcoal model resolved that issue by generating a reliable source of funds to pay for VLFR management. A supportive policy and regulatory environment is critical for sustaining CBFM. Changes introduced through GN 417 undermine the potential for sustainable charcoal from VLFRs to contribute to reducing deforestation.

The forestry sector's contribution to the national economy is undervalued. Well-governed charcoal from VLFRs boosts the value of the forestry sector.

Current regulations, including GN 417, restrict communities from benefiting from their forests and limit the economic contribution of the forestry sector. Charcoal is Tanzania's most valuable forest product, worth TZS 2 trillion yr^{-1} and comprising 44.2% of the forest sector's value. However, ***the government collects only 0.5 % of the charcoal trade's value as fees and taxes*** (MNRT, 2021), despite a royalty rate equal to 29% of the wholesale price of a sack of charcoal. In contrast, communities have effectively collected revenue from VLFR charcoal and invested it directly in social services and forest management. By supporting communities to collect and report on charcoal revenues, the value of the forestry sector would be boosted. This requires the removal of regulatory barriers to charcoal from VLFRs.

Classrooms financed with VLFR charcoal revenues in Ulaya Kibaoni Village, Kilosa District, prior to GN 417.

Recommendations

1. Strengthen community capacity to manage forests on village land by providing a supportive policy and regulatory environment where communities can benefit from sustainable forest-based enterprises, including sustainable charcoal.
2. Revise regulations to exclude Village Land Forest Reserves from the requirement to apply fixed charcoal royalty rates.
3. Support communities to market sustainable charcoal by empowering producers and Village Councils to select traders, independent of the District Harvesting Committees.
4. Increase the contribution of forest-based enterprises to the national economy by scaling-up sustainable forest-based enterprises, into more Village Land Forest Reserves.
5. Uphold the decentralised management model for forests on village land and resolve tensions between policy tools seeking to centralise, rather than decentralise, forest management.

References

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