

## **Climate Change and Poverty Reduction Strategies: Challenges and Lessons from Tanzania**

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### **Abstract**

There is no doubt that climate change has significantly impeded poverty reduction and development efforts in many countries. Recent climate-related catastrophes have caused significant damages to developing countries and their citizens. This article analyses the nexus between climate change mitigation and its impact on Tanzania's poverty reduction strategies. With the government's decision to abandon poverty reduction strategies in 2011, it is vital to understand how these issues are mainstreamed in national plans. Drawing on extensive literature of secondary sources and official publications, the article demonstrates that, notwithstanding many promising features of the new national development plan, Tanzania has performed poorly within the overarching notion of mainstreaming climate change in its various national development plans. Findings further show that despite all these efforts made in previous climate change and poverty reduction strategies, Tanzania is still ill-prepared to face future climate change challenges. The article concludes that climate change issues are real and have already caused a significant setback to agricultural production and other productive sectors, posing a serious threat to human and food security. It recommends reconsidering mainstreaming climate change in development plans, adequate budgetary allocation, and establishing an effective National Adaptation Programme of Action (NAPA) to coordinate climate-risk information at national and local levels.

**Keywords:** *climate change, poverty reduction, mainstreaming, development policy, Tanzania*

### **1. Introduction**

Adaptation strategies and the call for mainstreaming climate change into development planning are closely linked (Ehrhart & Twena, 2006; Eriksen et al., 2007; Eriksen & Brien, 2007). Also, literature recognizes that poor people are likely to be highly vulnerable to food and climate change, particularly in developing countries due to their limited resources to adapt to climate change (Parvin & Ahsan, 2013). Accordingly, more attention needs to be paid to this area, to find out how climate change can be mainstreamed in development policies. Mainstreaming involves a purposive action of integrating climate change issues in development policies and plans to mitigate the effects posed by climate change (Ayers et al., 2014). The main thrust is to have integrated policies that are greatly sustainable, effective, and efficient in addressing climate change

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effects. Mainstreaming climate change into sector policies such as poverty reduction strategies is important at all levels of government (Ayers et al., 2014; Griebenow & Kishore, 2009; Rauken et al., 2015).

Poverty reduction strategies are underpinned by considerable efforts to address various forms of vulnerability (Ehrhart & Twena, 2006; Rozenberg & Hallegatte, 2015; Zhou et al., 2017). In other words, good development policies must also be firm with corrective adaptation measures in development policies (Dasgupta & Baschieri, 2010; Griebenow & Kishore, 2009; Kibugi, 2013; Rauken et al., 2015). In the case of Tanzania, climate change has been widely seen as a national policy concern. It presents a serious challenge to policymakers because of its uncertainty (TERI & IISD, 2006). Some physical manifestations of climate change—such as inadequate precipitation, floods, rise in sea levels and droughts—have already become widespread, and pose major threats to human security (Chandio et al., 2020; Parry et al., 2007).

However, such threats seem to be overlooked in the current approaches and policies to eradicate poverty in many developing countries (World Bank, 2009). Experience shows that poorly designed policies may severely aggravate poverty and make the poor more vulnerable (Ruckert, 2009). This is the issue of human security that needs to be adequately incorporated into poverty reduction strategies.

The government of Tanzania has been implementing various poverty reduction strategies. The first National Strategy for Growth and Poverty Reduction (NSGRP) ended in 2010 and was succeeded by a second strategy (2010-2015). Both strategies shared common clusters that addressed issues of economic growth, poverty reduction, social wellbeing, and good governance and accountability. However, more emphasis was given to sustainable development, where climate change issues were scattered across several sectoral policies and plans (Shemsanga et al., 2010). Since climate change can have severe consequences on agriculture and many other economic sectors, it is necessary to understand sufficiently how these issues are mainstreamed in national plans in the absence of poverty reduction strategies.

Climate change, agriculture and poverty are closely linked and must be considered in any poverty reduction strategy (PRS) process (Griebenow & Kishore, 2009). For example, agriculture is the backbone of Tanzania's economy, contributing about 25% of its gross domestic product (GDP) (URT, 2014; World Bank Group, 2019). It also contributes about 24% of all exports, making the sector the pillar of 75-80% of people's livelihood in Tanzania. The sector supports a majority of the poor people in Tanzania, who are also the most affected by climate change, particularly during famine and food insecurity. While crop diversity is high in some parts of the country, most households are engaged in food crops for subsistence, which makes them vulnerable to food security and economic shocks (URT, 2014). Nonetheless, the sector has been negatively affected by low productivity and the lack of reliable markets.

Since the agricultural sector in Tanzania is the main backbone of the economy, it has been considered the most vulnerable to climate change. This is also true to other key economic drivers for Tanzania such as tourism, commerce, fishing, livestock, and mining, which may additionally be directly or indirectly affected by climate change (Yanda et al., 2013). While these sectors may be somewhat secure from climate change, the agricultural sector is highly climate-sensitive. For example, more than 90% of agricultural producers in Tanzania depend on rains. Similarly, most rural people depend on natural resources for their livelihood (Ahmed et al., 2009; Mushi, 2013; Pantaleo & Ngasamiaku, 2021). A more recent study, which used three waves of national panel survey data in Tanzania, has shown a higher risk of being poor in future for those who are employed in agriculture and residing in rural areas (Pantaleo & Ngasamiaku, 2021). These findings indicate that when agriculture is affected by climate change, the poor are severely impacted since their food security chain is also disrupted.

Climate change, agriculture and food security are also closely related. These issues have attracted a considerable attention of academicians and policymakers (Chandio et al., 2020). This point is also echoed by Bird and Yanda (2014) who argue that the majority of Tanzania's population depends on livelihoods based on agriculture, with low nutritional status that makes them highly vulnerable to drought and food insecurity. This calls for more effective development and adaptation policies that should wrestle with climate change and poverty reduction issues. Accordingly, the government of Tanzania has admitted—through its national plan of action—that the country is already experiencing climate change, including, for example, frequent and severe droughts, six of which have been droughts that the country witnessed over the past 30 years (Armah et al., 2015).

Although extensive research has been done on the impacts of climate change and poverty reduction strategies in Tanzania (Armah et al., 2015; Arndt et al., 2012; Bezabih et al., 2010; Ehrhart & Twena, 2006; Kangalawe & Lyimo, 2013), there is still opportunity to review some of the recent development plans—including policies—and the extent to which they address climate change in Tanzania.

The rest of this article is organized in six sections. Section two, which follows immediately after this introduction, outlines methods used to collect and analyse data in this study. Section three discusses conceptual debates about climate change and poverty reduction strategies, while section four provides an overview of climate change and poverty reduction in Tanzania. Section five is devoted to an analysis of poverty reduction strategies and the recent five-year development plans (FYDPs), and how these have addressed climate change and poverty in Tanzania, as well as the challenges involved. Section six is the conclusion.

## **2. Methodology**

This study employed a participatory approach, which included the collection and analysis of qualitative data. The study actively engaged stakeholders in

dialogue and reflection by collecting and triangulating data through a participatory research approach. A thorough review of the literature on climate change and poverty reduction strategies in Tanzania was conducted using a variety of policy documents, national development plans, laws, regulations, circulars, government reports, research reports, journal articles, and other secondary sources; as well as interviews with a few officials from the Vice President's Office (Union and Environment), and the Ministry of Agriculture, which is responsible for the environment. Tanzania's five-year national development plans, national poverty reduction strategies, and implementation reports were also reviewed. The documentary method and its thematic analysis were therefore chosen to provide a broader perspective on the study's themes, which included a national analysis of climate change, poverty reduction, and challenges and lessons learned.

### **3. Climate Change and Poverty Strategies: Some Conceptual Definitions**

#### ***3.1 Climate Change***

There is minimal consensus on the optimal definition of climate change. For example, climate change has been defined as "... a systematic change in the key dimensions of climate" (Paavola, 2008: 2). This includes change in average temperature, wind, and rainfall patterns over an extended period. The definition from the Intergovernmental Panel on Climate (IPCC) refers to climate as "... any change in climate over time, whether due to natural variability or as a result of human activity" (Parry et al., 2007: 6). According to these authors, this usage is different from that of the Framework Convention on Climate Change (FCCC), which refers to climate change as change attributed directly or indirectly to human activity by altering the composition of the global atmosphere. Pielke (2004) argues that these two definitions are incompatible and not politically or scientifically correct. Accordingly, some authors have concluded that, given the incompatibility between the definitions used by science and policy organizations, it has been a challenge to effective implementation of climate change policies (Haibach & Schneider, 2013; Pielke, 2004). Despite various definitions of climate change advanced in literature, the concept has not been accepted and well understood by politicians – including some local people – leading others to call it a myth. Some sceptics have claimed that global warming is associated with climate change as a fantasy dreamed up by climate scientists (Pearce, 2005).

There are important benefits of clearly understanding the concept of climate change. The danger of climate change may not be entirely visible to many countries as there are no technical capacities to track and predict major natural disasters. However, the changes that are happening now are rapid enough to raise the eyebrows of government leaders (Bonsall et al., 2002; Gregory et al., 2005; Hallegatte et al., 2014; Lekwot et al., 2012). For example, the IPCC states that the 1990s was the hottest decade since records started 150

years ago, when the temperature rose by 1.1°F (0.6°C). The average temperatures on the earth are now projected to rise by 10.4°F (5.4°C) by the end of this century (Spence, 2005).

This brief review indicates that climate change is frequently viewed as a stressor because of its varied implications on human security, including loss of lives and livelihoods, as well as increased unavailability of food and water. The same stressor can manifest itself in many ways, such as in droughts, soil salinization or greater climate variability. Similarly, shocks—such as storm surges or pest outbreaks—can strike without warning, sometimes with devastating consequences. Each of these stressors may elicit a variety of government reactions, which may result in either favourable or negative effects (O'Brien & Leichenko, 2007).

### ***3.2 Poverty Reduction Strategies***

The Poverty Reduction Strategy Papers (PRSPs) are publications produced by developing countries to describe their macroeconomic, structural, and social policies together with programmes to promote growth and poverty reduction (Driscoll & Evans, 2005; Hickey & Mohan, 2008). These documents are generally prepared for external financing needs. The documents are supposed to be country-driven and prepared through a participatory process that should include civil society organizations and development partners. The core principles guiding PRSPs aim to provide a practical framework for achieving sustainable development results at country level (WB & IMF, 2005). In short, PRSPs have been regarded as country-level operational frameworks for achieving the millennium development goals (MDGs) (Kalinda, 2008). Since their inception, the papers have been regarded as key instruments for funding diverse social and economic projects by the international development community. By late 2005, approximately 49 countries had completed their PRSPs, while a substantial number were still in the early stages of developing—or had completed—their second poverty reduction strategies (Hickey & Mohan, 2008; WB & IMF, 2005).

Driscoll and Evans (2005: 6, 10) have done excellent work in summarizing experiences of the first generation of PRSPs. They suggest that the strategies have made some important progress in reducing poverty; have engaged civil society organizations in addressing issues of poverty; and have also attracted more attention from various donors. However, some challenges have remained, including the need to build stronger government attention as well as commitment, and build more commitment together with the harmonization of efforts by governments and donors for securing behavioural changes. However, although donors have been committed to support various poverty reduction strategies, the extent to which climate change issues have been mainstreamed in such strategies is still unclear. For example, Griebenow and Kishore (2009) argue

that the degree to which climate change and environmental issues have been mainstreamed in the PRSPs is improving although there has been a general tendency to improve this process over time. Nonetheless, the extent to which environmental issues and climate change issues are mainstreamed in the PRSPs is highly variable (Ehrhart & Twena, 2006).

Global experience suggests a need to mainstream environmental issues into poverty reduction strategies (Dawson & Allen, 2007; Griebenow & Kishore, 2009; Harvey, 2008; Zhou et al., 2017). This should go hand-in-hand with the introduction of some sustainable measures to cope with climate change. Sustainable adaptation measures involve an interface between poverty and vulnerability by addressing climate risk, the poor's adaptive capacity, and causes of vulnerability (Eriksen, 2007). Sustainable measures are also based on the understanding that vulnerability is a contextual issue that is contingent on environmental, social, cultural, and political conditions (Lawson & Clair, 2009). Therefore, it should be noted that countries are at different stages in the implementation of PRSPs, and an assessment of such strategies must take into account domestic policy formulation and implementation processes.

#### **4. Climate Change and Poverty Reduction in Tanzania**

The implementation of climate change activities in Tanzania is carried out within the National Environmental Policy and the Environmental Management Act (EMA) of 2004. The Act empowers the Vice President's Office (VPO), through the Division of Environment (DoE), to oversee all the country's environmental and climate change-related activities. The Act provides for the establishment of various committees at the national and local levels (Yanda et al., 2013).

The first NSGRP (2005-2010) provided a useful framework for examining how climate issues have been mainstreamed in development policies and strategies. The document was conceived in line with meeting the Millennium Development Goals (MDGs) (Holtom, 2002). The NSGRP was regarded as the kernel of development policy in Tanzania. Both the NSGRP I and NSGRP II (2010-2015) addressed sustainable development as key principles for sustainable growth and poverty reduction in Tanzania. Administratively, the programmes were run through the Vice President's Office, with some specific initiatives to integrate the programmes with environmental policies and institutions such as the National Environmental Policy (NEP), the Environmental Management Act (EMA), and other related regulations. In general, the programmes were outcome-orientated, and organized on three clusters: growth and reduction of income poverty, improved quality of life and social wellbeing, and governance and accountability (URT, 2005, 2010b). The programmes were also aimed at fostering sustained economic growth, building sound macroeconomic management, increasing investment, and improving productivity (URT, 2011b).

It should be noted that the country's PRSs were frameworks to implement the Tanzania Vision 2025 before the introduction of the FYDPs. Therefore, the PRSs were successively integrated into FYDP I (2011/2012-2015/2016), FYDP II (2016/17-2020/21) and the FYDP III (2021/22-2025/26). As discussed in the following sections, mainstreaming of issues on climate change and poverty reduction has not been given the upper hand in all these plans.

## **5. Assessing Climate Change and Poverty Reduction Strategies in Tanzania**

### **5.1 Poverty Reduction Strategies and Agriculture in Tanzania**

Although there is no clear established evidence on the relationship between poverty and natural disaster risks, many of the indicators for measuring poverty in Tanzania are linked to climate change variability (Assey et al., 2007; Brant, 2011; Kazungu & Cheyo, 2014). For example, drought has been a frequent natural disaster that affects most of the poverty-stricken areas in many parts of the southern and northern highland areas, which were once highly productive but are now becoming increasingly tropical due to declining rainfall and frequent droughts. Such a situation has worsened food insecurity, livestock as well as crop productivity, and has led to the outbreak of some infectious diseases (World Bank Group, 2019).

The government of Tanzania has embarked on various strategies to eradicate poverty since the 1960s, as discussed in the previous sections. The implicit assumption has been that poverty could be eradicated with sound economic growth (URT, 1998). Bird and Yanda (2014) argue that although much progress has been made in developing a national response to climate change in Tanzania through the PRS, less attention has been given to its implementation and its linkage to budgetary allocation. For example, there was no strong linkage between policy and budgeting on climate change action in Tanzania.

The problem of linking budgetary allocation to PRS is not unique for Tanzania. For example, Armah (2008) showed Ghana's failure to link the Ghana Vision 2020 and the Medium-Term Development Plan (MTDP) with the annual budget through a macroeconomic framework. The work of Twerefou and Osei-Assibey (2008) extends the idea of Armah (2008): that although many countries such as Ghana may be signatories to almost all international agreements on the environment, the problems of climate change and poverty persist mainly as a result of institutional failure and challenges in policy implementation.

For the case of Tanzania, both NSGRP I & II explicitly focused on risks of climate change, especially in agriculture and disaster risk-reduction through ensuring that food and nutrition security, environmental sustainability, and climate change adaptation and mitigation are in place (URT, 2010a). Agriculture in Tanzania is primarily rain-fed, and only two 2% of arable land has irrigation facilities. Also, Tanzanians cultivate staple foods that are all susceptible to adverse weather events (URT, 2011a). Hence, the PRSs recognized this threat and

identified droughts and floods as primary threats to agricultural productivity and poverty vulnerability (Ahmed et al., 2009; URT, 2016a). Despite achievements made during the implementation of NSGRP II, there were notable challenges, including natural hazards like pest and disease infestation, persistent droughts, floods and climate change effects (URT, 2016a).

Climate change has had severe impacts on Tanzania's agricultural sector in general. According to some past and present statistics, the sector grew at a rate of only 4.7% between 2000 and 2006 (Kangalawe, 2013). One reason for the agricultural sector's slow growth is the severe drought that struck Tanzania in 2006. The drought also affected the crop subsector, which grew by 5.2% in 2005 compared to 4.0% in 2006 (URT, 2009). The growth of the agricultural sector was much slower between 1990-2007 than other sectors of the economy such as GDP, manufacturing and services (URT, 2016a). There is substantial literature that has examined the effects of climate change on agriculture in Tanzania (Ehrhart & Twena, 2006; Kangalawe & Lyimo, 2013; Mushi, 2013; Yanda et al., 2013). Climate change affects food security in a complex way. According to Parvin and Ahsan (2013), climate change directly impacts on the food production chain through agro-ecological conditions. It indirectly affects food distribution, accessibility, price, and local food creation. Climate change also affects temperature, and hence reduce rainfalls, which in turn affects growing seasons (URT, 2016a; World Bank Group, 2019).

The analysis of the interventions of PRSPs and how they have addressed climate change impacts in Tanzania is mixed. This is because PRSPs have mainly focused on reducing climate change impacts by introducing drought-resistant crops, irrigation schemes, and direct support for people affected by shocks through the provision of food-for-work and creation of employment schemes (Ahmed et al., 2009; Paavola, 2004, 2008). What seems to be missing in the said interventions are important issues of climate and vulnerability. Generally, there were no precise details given on the concept of vulnerability and its operationalization in the context of PRSPs (Ayers et al., 2014; Dasgupta & Baschieri, 2010; Rauken et al., 2015). Such omission was a fundamental mistake in the whole document as local people could not assess the potential risks of climate change. People needed to be aware of the dangers of climate change, and the government needed to advance the existing local knowledge in dealing with climate variability. The lack of specific knowledge about adapting to climate change seriously affected local people's power to respond to disasters caused by climate change (Armah et al., 2015). In this case, some specific population sections were more likely to be vulnerable than others, for example, people living with Acquired Immunodeficiency Disease (AIDS), the elderly, the disabled, orphaned children and refugees (Ahmed et al., 2009; Dasgupta & Baschieri, 2010; Eriksen & Brien, 2007).



Experience from other countries has shown little progress from the PRSPs in addressing climate change issues. For example, Ruckert (2009) assessed the social impacts of three poverty reduction strategies in Latin America (Nicaragua, Honduras, and Bolivia) and concluded that there were few gains in poverty reduction despite the strong emphasis provided on the three PRSPs. The study found further that the participation of Civil Society Organizations (CSOs) remained extremely low as more than 100 Bolivian CSOs expressed their dissatisfaction with the content of the final PRSP documents (ibid.).

### *5.2 Tanzania's Commitment to the Adaption to Climate Change*

Tanzania has found itself juggling the need to adapt to climate change. There is no operational national adaptation programme of action (NAPA) to deal with climate change, although Tanzania is one of the 39 least developed countries (LDCs) to have submitted its NAPA to the UN Framework Convention on Climate Change (UNFCCC) (IIED, 2009). Nonetheless, Tanzania's commitment to international climate change treaties is somewhat positive. It is a signatory to the following international environmental treaties: Environmental Strategies or Action (1994), Biodiversity Assessments Strategies or Action Plan (1988), Climate Change (1996), Ozone Layer (1993), Law of the Sea (1994), Biological Diversity (1996), Kyoto Protocol (2002), Cities (1979), and Stockholm Convention (2004) (WB, 2009: 191). Membership in all of these initiatives demonstrates the government's commitment to environmental health.

However, as is the case with other international treaties, the implementation of these agreements is entirely up to individual governments. For instance, the government has undertaken additional environmental initiatives in the development of the National Gender and Climate Change Strategy (2012) and the National Guidelines for Gender Mainstreaming in the Environment (2014) (URT, 2019). Despite these initiatives, the same documents acknowledge that there are still some obstacles to good environmental governance. These include the absence of policy guidance on good governance in environmental management; the absence of comprehensive guidelines for formulating environmental by-laws; and insufficient capacity to enforce environmental laws and by-laws. Additionally, evidence suggests that the ineffective implementation of environmental legislation and international treaties may be attributable to the low priority that the government puts on these concerns in comparison to other commitments (Anderson & Chandani, 2008; WB, 2009).

Ironically, climate change issues seem to be brushed aside in Tanzania's current efforts to eradicate poverty. This is demonstrated by the fact that the current FYDP III and previous plans include no explicit reference to climate change or poverty reduction (URT, 2011a, 2016b, 2021). Instead, the government has always been complaining that efforts to address environmental problems – i.e., climate change – have been hampered by several factors, including: people's

perceptions and inability to address the problems, lack of accountability and transparency, rapid growth in population, rural-urban migration, poor economic infrastructure, and the devastating nature of the HIV/AIDS scourge (Armah et al., 2015; URT, 1998: 14; Yanda et al., 2013; Yanda et al., 2019). Government leaders appear to be convinced that these are the only setbacks hindering the eradication of poverty, while climate change issues are treated as secondary.

Similarly, some other countries still view the dangers from climate change as somewhat speculative, incomplete, and uncertain; but the truth remains that poorer countries and their people with such views are more likely to be vulnerable to the adverse impacts of climate change than rich countries (Gregory et al., 2005). Nevertheless, it is noteworthy that India and Mali have managed to integrate climate change issues into their policies and planning compared to other developing countries (Reid & Huq, 2007). However, this does not mean that the two countries provide the best models in terms of mainstreaming climate change in PRSs, only that they can offer some valuable lessons which can be adopted by the other developing countries, including Tanzania.

### ***5.3 Mainstreaming Climate Change in the Poverty Strategies in Tanzania***

Despite efforts made by the government to address climate change issues, Tanzania does not have an overall national climate change policy. Instead, the only policy direction is the National Environmental Policy of 1997 (Yanda et al., 2013). Nonetheless, Tanzania is not the only country that has not seriously taken climate change in its various PRSs. For example, a study conducted by Watkins (2007) revealed that just twelve (12) out of nineteen (19) countries had mentioned climate change in their entire PSRPs. However, according to this study, overall Tanzania scored poorly in the assessment: it received no points on a five-point scale (0-5) for measuring climate change in PRSPs, i.e., mention of climate, national change scenarios, regional climate change, sector/community vulnerability identification, and research gaps and needs.

Adaption measures, as addressed by the PRSPs, cannot bear any fruits without addressing specific factors and conditions that make poor people highly vulnerable to climate change (Eriksen & Brien, 2007). Policies that address poverty reduction may become a hindrance if they cannot face the anticipated and unanticipated challenges of climate variability. Therefore, and as O'Brien et al. (2010: 36) contend, this calls for rethinking "... climate change as a matter of human security." Furthering this idea, the authors argue that global ideas about poverty have often overlooked the danger posed by market relations and emphasize technical matters with managerial solutions (ibid.). In this sense, global poverty analysts tend to brush aside the significant role of social relations (Escobar, 1995). Unfortunately, this situation has become all too common in today's discussion of poverty and its reduction measures.

Sustainable adaptation requires integrating various ministries at the national and local levels, particularly in local authorities that are regarded as the best institutions to deal with people's vulnerability. The move by the NSGRPs to go hand-in-hand with local government reforms is a positive one. Decentralization is widely assumed to facilitate the eradication of poverty, although this should be taken with some precautions. For example, the World Bank has been active in supporting decentralization efforts in developing countries through measures to promote opportunities, facilitate empowerment and enhance security (Steiner, 2007). However, these measures appear to have been disregarded, despite the fact that climate change has the potential to undermine poverty reduction strategies and adversely affect decades of development progress (Bonsall et al., 2002; Busby et al., 2013; Leichenko & Silva, 2014). There is no doubt that climate change presents a major challenge for poverty reduction strategies in many low-income countries and economies highly dependent on weather-sensitive resources (Eriksen et al., 2007; Eriksen & Brien, 2007; Watkins, 2007).

#### ***5.4 Challenges for Effective Mainstreaming Climate Change in FYDP III***

The importance of addressing issues of climate change in PRSPs has been widely emphasized in literature (Ayers et al., 2014; Griebenow & Kishore, 2009; Kibugi, 2013; Rauken et al., 2015). However, despite some of the PRSPs mentioning the importance of climate change, implementation has been a critical challenge. For example, various studies on climate change in Tanzania (Armah et al., 2015; Arndt et al., 2012; Bezabih et al., 2010) have shown that some of the monitoring indicators in the PRSPs and FYDPs do not provide a comprehensive account of climate change issues in Tanzania. In this regard, one fails to systematically see how climate change has been mainstreamed in national development and local government plans (Excellensia Consulting, 2010). Other challenges have been associated with the government's inability to translate economic growth into poverty reduction by addressing critical issues such as the financing gap, the lack of aid predictability, inadequate and unqualified human resources, weak institutional set-up, and service delivery (Brant, 2011). The lack of a comprehensive national climate change strategy and policy, and the lack of explicit address to climate change in both national and local plans, means there is no clear national framework for assessing the extent to which climate change issues have been mainstreamed into the plans (Norrington-Davies & Thornton, 2011).

Fundamental issues confronting the majority of countries implementing PRSPs have been the lack of comprehensive institutional frameworks and weak commitment from national and local leaders (URT, 2016b; Harvey, 2008; World Bank Group, 2019). Bolivia and Zambia demonstrate three crucial lessons regarding the mainstreaming of climate change in PRSPs and the role of donors. First, there has been a pattern of encouraging accountability procedures without providing sufficient discretionary authority to carry out the objectives. Second,

donors lack explicit methods for enforcing accountability across multiple government departments and sectors. Third, during implementation of the PSRPs in developing nations, there has been a tendency to disregard local politics (Hickey & Mohan, 2008).

Funding for climate change in Tanzania has been somewhat challenging. According to Norrington-Davies and Thornton (2011), funding for climate change in Tanzania is provided through bilateral and global funding mechanisms. It is usually provided as grants, loans, and technical as well as institutional capacity support for addressing climate change issues. For example, donors provide about 40% general budget support in Tanzania, but it is only a tiny fraction of this that goes to financing climate change issues. Accordingly, higher institutional capacity to integrate climate change into national policies, budgets and projects remains the most critical challenge. However, this seems unlikely to be addressed soon as some national leaders still view the potential risks of climate change as less critical in their development planning and budget allocation, thus making climate change activities mostly be donor-driven.

The FYDP III's broad priorities included: (a) stimulating a competitive and participatory economy; (b) strengthening industrial production and service delivery capacity; (c) promoting investment and trade; (d) stimulating human development; and (e) human resource development (URT, 2021). While priority (d) and (e) should have reflected the main clusters of the preceding NSGRPs I and II, their emphasis has been on education, social welfare, social protection, sanitation, and – to a lesser extent – climate change consequences. Nonetheless, the new document as a whole makes only a passing reference to climate change and its impact on poverty.

### *5.5 Lessons on Climate Change and Poverty Reduction Strategies from Tanzania*

This article has summarized current thinking on climate change adaptation planning in Tanzania. Among the lessons learned from Tanzania and relevant literature is that, adaptation to climate change should be viewed as a broad range of measures aimed at reducing poverty and vulnerability to a variety of climatic changes. This means that adaptation to climate changes is highly context-specific, as it is determined by national and sectoral climatic, environmental, social, and political conditions (Adger et al., 2003). National FYPs require close collaboration between policy makers, scientists and practitioners in specific sectors (Füssel, 2007). This also takes global climate change into account, which is critical for decisions with a long planning or policy horizon. Due to fundamental and practical constraints, national development plans cannot avoid all the effects of climate change. As a result, adaptation to climate change is not a substitute for climate mitigation. Previous poverty strategies in Tanzania have had mixed results in terms of addressing climate change (Chandio et al., 2020; Parry et al.,

2007). Their integration into the FYPs, on the other hand, has been poorly considered. This is because previous strategies placed a much higher priority on mitigation and adaptation measures than the current FYDP III.

## **6. Conclusion**

This article has tried to exhibit some dangers posed by climate change on poverty reduction strategies in Tanzania. The literature surveyed has indicated that climate change has not been adequately addressed in the country's FYDPs despite its serious threat to poverty reduction strategies. The reasons for this omission seem to be linked to the lack of commitment from government and development partners. This is a fundamental flaw in plans themselves, and a serious threat to human as well as food security. The IPCC report underlies this omission by arguing that climate change effects are likely to hit hard the emerging countries given their limited capacities to adapt.

Climate change adaptation and mitigation strategies are also absent from the country's new strategy to alleviate poverty. While mitigation steps are vital to lessen the severity of problems associated with climate change, the government should prioritize adaptation strategies for poor countries like Tanzania. It should also be emphasized that local residents have been utilizing their own adaptation mechanisms to deal with natural disasters, and thus, national plans must also leverage on these mechanisms. Simultaneously, the government should demonstrate its unwavering commitment to implementing international environmental treaties that it has signed: it does not make sense just to sign these climate change treaties without implementing them.

Earlier attempts for poverty alleviation acknowledged the inextricable link between poverty and climate change. However, the government's decision to abandon poverty reduction strategies and integrate them into FYDPs raises numerous concerns about future poverty reduction efforts. This is because poverty is a multifaceted problem with numerous and complicated inter-connections that necessitate a well-defined national strategy. In this regard, the FDYP III should focus on agricultural sector development by improving rural roads, irrigation projects, and marketing infrastructures. Future strategies should also incorporate conservation agriculture and strategies for mitigating impacts of climate change. It is also critical to strengthen capacities and institutions, particularly at the local level, so as to integrate climate change more effectively into the national planning process. Additional crucial measures—such as promoting participatory risk reduction, disaster preparedness, climate change adaptation, and poverty education—are critical for achieving sustainable development goals.

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