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Climate Compatible Development at Local Levels: Assessing the integration of climate and development strategies in Muheza District, Tanzania

Giovanni Pilato, Susannah M. Sallu* and Marta Gaworek-Michalczenia

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Sustainability Research Institute, ESRC Centre for Climate Change, Economics and Policy, University of Leeds

*Corresponding author Email: s.sallu@leeds.ac.uk

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SUMMARY

This brief outlines the results of a research project aimed at assessing the degree of integration between climate and development strategies in Muheza District, Tanzania. Findings show that, several barriers are hindering the process towards Climate Compatible Development (CCD) in local development planning. These include under-resourcing, the lack of reliable information on climate impacts, and the lack of integration between climate change and development in key national development policies. However, some activities potentially delivering triple-wins are being implemented at the village level, with the support of external stakeholders. This study suggests that moving towards CCD at sub-national levels requires both building capacity within local government authorities and enhancing coordination between national government and local government authorities. At the same time, cooperation between local government authorities, responsible for development planning, and external stakeholders, engaging with climate change activities, is essential to ensure consistency between climate and development objectives.

KEY MESSAGES

1. Though climate change is not integrated in local development planning, on-the-ground activities to cope with extreme weather events are implemented in partnership with external stakeholders

2. Partnerships with external actors are useful to overcome certain barriers to climate mainstreaming, but they may have some drawbacks

3. Climate change mainstreaming requires capacity building at local levels to cope with climate change, as well as enhancing coordination between the District and the national government

4. Cooperation between external stakeholders and local administration is necessary to ensure consistency between climate change coping mechanisms and local development objectives

The link between climate change (CC) and development, and the relative certainty of CC and its effects has led to the theorisation of alternative development pathways. A key point of these pathways is their incorporation of CC objectives, through the consideration of mitigation and adaptation measures. In fact, mitigation and adaptation objectives have traditionally been pursued in isolation from development planning. The concept of Climate Compatible Development (CCD) has been proposed as a policy framework to overcome the separation between climate strategies and development planning[1]. It promotes the linkages between adaptation, mitigation and development strategies in order to achieve 'triple-wins'[2]. The operationalization of CCD requires integrated approaches in development planning.

CCD could provide a new development landscape for sub-Saharan countries[3], which are particularly vulnerable to CC. In Tanzania CC is likely to be a stressor to future development, due to the projected magnitude of intensified climatic events,

the country's economic dependence on climate sensitive sectors (e.g. agriculture), urbanisation, population growth, and local communities' limited capacity to cope with climate variability[4]. Whilst at the national level a number of policies and institutional arrangements address the link between CC and development, it is unclear whether development and CC strategies are being integrated at sub-national levels. Sub-national administrative levels provide important opportunities for context-specific integration of development and CC strategies, through local development plans and joint action between local governments, private sector and citizens. Moreover, in Tanzania, development planning follows a bottom-up approach, with District Councils in charge of the formulation of a District Council Development Plan, with inputs from villages and in line with the guidelines and budget frameworks issued by the Ministry of Finance.

Muheza District provides a useful case study to investigate the barriers and the opportunities for CCD. Muheza District Council, in partnership with ONGAWA and the Tanzania Forest Conservation Group has initiated a project to integrate CC strategies in local development planning. This brief outlines the results of a research conducted by the University of Leeds aimed at assessing the degree of integration between climate and development strategies in Muheza District (including both District Council and local communities) and at identifying barriers and opportunities for CCD.

Research approach

Data collection took place in December 2016, through semi-structured interviews with Muheza District Executive Director, Heads of several District departments (Agriculture, Environment, Forestry, Land, Planning), Misalai and Zirai Wards leaders, and leaders from 8 villages within Muheza District. Additional data were collected in July 2017 through two semi-structured interviews with staff from a national and an international NGO, both engaged in the integration of climate change measures in local development, and through the analysis of the 2011/12-2016/17 Muheza District Five Years Development Plan (5YDP). Data analysis followed a qualitative approach. Interviews transcripts and notes, and the 5YDP were analysed using both inductive and deductive thematic analysis.

Summary of key findings

1. CC is not currently integrated in local development planning

The current 5YDP does not include any measure to address CC. In line with the 2025 Tanzania Development Vision, the 5YDP envisages 4 development priorities for the District: attaining a high quality livelihood; attaining good governance and the rule of law; building a strong and competitive economy; attaining reliable supply to all people. The 5YDP includes an improvement in infrastructure and a transition towards a more industrialised local economy, based on processing industries. However, CC is not mentioned as a stressor to local development efforts. Furthermore, the 5YDP does not mention the impact that such industrialisation process could have on CC.

2. Awareness on CC is widespread across administrative levels and it is generally framed as a local environmental issue

At all levels, environmental degradation, in particular degradation of the local forests, are perceived as the causes of CC. At the same time, respondents from the District and the village level consider the decrease in average rainfall within the District as a sign of CC. Only one respondent from the District level recognised the link between development processes and CC. Beside local environmental degradation, the respondent mentioned carbon emissions from industries as one of the causes of CC.

3. The mandate for CC within the District Council is currently unclear

The interviews at the District level suggest that across departments it is not always clear where the mandate for CC lies. Several respondents identify the District Executive Director (DED) as the central authority with the mandate on CC issues. However, they also explained that this mandate is currently being delegated to the Environment Department, due to the lack of expertise on CC within the DED.

4. A number of on-the-ground activities to cope with extreme weather events are being implemented, but triple-wins are not generally acknowledged

Although integrated CC and development actions are not included in the 5YDP, respondents at all levels (Village, Ward and District) mentioned a number of measures that are being implemented

or planned to cope with extreme weather events and to support local development.

The most reported activities are in the agriculture and in the forestry sector, and are planned or implemented to cope with droughts (see Table 1). Respondents at all levels acknowledged the adaptation benefits of these activities, for instance, shifting to drought resistant crops and diversifying livelihoods to enhance food security and increase household income. However, awareness of the potential development benefits of these activities is lacking in some cases. For example, only one respondent at the District level noticed the potential financial benefits from projects that relate to forest conservation and the REDD+ initiatives. Similarly, respondents are generally unfamiliar with the concept of mitigation that was mentioned by sole interviewee at the District level in the context of forest carbon sequestration. At the village level, CC is generally perceived as a local issue caused by deforestation and resulting in rainfall decline. In this sense, forest conservation and reforestation are perceived as 'mitigation' measures to restore traditional rainfall patterns.

5. Activities integrating CC measures in local development are generally implemented in partnership with external actors

External actors (mainly NGOs) are taking the initiative to engage with CC issues and to integrate them into local development. Respondents at all levels mentioned conservation-focused projects as also having positive impact on climate. For instance, the Pangani River Basin Management Project is supporting conservation agriculture, forest management, and irrigation. Similarly, The Eastern Arc Endowment Fund, a trust fund to finance various community projects, supports the provision of efficient wood stoves to reduce the use of fuel wood and deforestation. On the other hand, some other activities have more development focus, e.g. they provide adaptation benefits by enhancing alternative livelihood activities. For instance, in the villages bordering nature reserves, as in the case of Amani and Nilo, participatory forest management provides a channel for the integration of CC in local development through alternative livelihood projects. Commonly, many of these projects do not have an explicit CC focus, but respondents at the District and village level acknowledged their benefit for climate objectives.

	Perceived gains		
Measure	**Mitigation**	**Adaptation**	**Development**
Planting drought resistant crops	-	Reduced vulnerability to droughts	Food security
Diversifying livelihoods (livestock keeping, beekeeping, butterfly farming, agroforestry)	-	Reduced vulnerability to droughts	Income generation
Forest conservation	Preserve rainfall patterns	Protect water catchment	REDD+ payments
Forest co-management	-	Protect water catchment	Support to village development from partnership with forest reserves
Sustainable Land Management	-	Preserve soil moisture	Food security

Table 1. Measures implemented or planned at the District and at the village level to integrate climate change in local development (derived from interviews with District officials and village leaders).

6. There are multiple barriers to the integration of CC measures in local development planning

Lack of resources

Lack of financial resources is the most reported barrier to the planning and the implementation of CC measures. According to the respondents from both the District Council and the village level, insufficient funds from the national government are hindering the implementation of activities simultaneously addressing CC issues and local development, e.g. conservation agriculture. Many village leaders stated that, scarce village revenues are impeding the preparation of the Village Land Use Management Plan (VLUMP), which would contain measures to promote a sustainable use of natural resources. Therefore, community development funds, such as the Village Community Bank (VICOBA) and the Tanzania Social Action Fund (TASAF), provide important financial opportunities for the villages, that have already initiated several income-generating activities through these funds (e.g. tree planting, beekeeping).

Lack of resources also refers to the lack of technical resources and staff expertise. Interviews at the District level suggest that, within the District Council, there is no expertise on CC. Knowledge on the causes of CC is generally limited to the local factors, such as deforestation. The lack of expertise on CC was also suggested as the reason for the exclusion of climate change issues from the 5YDP.

Insufficient information and ineffective communication

A lack of reliable weather forecasts is generally perceived as a barrier to the integration of adaptation in local development planning and practice. Weather reports that are received by the District from the Tanzania Meteorological Agency (TMA) every 3 to 4 months, are usually considered irrelevant to local planning. As reported by many village leaders, those weather forecasts, which cover the whole of Tanga region, do not provide information on local variations. For that reason, the main source of information on climate variability at the village and District levels are TV and radio. This may put farmers without those devices at a disadvantage.

Respondents at all levels stated that communication across levels is ineffective, which also relates to under-resourcing. In case of extreme weather events, the District communicates information on agriculture strategies to wards and villages through extension agriculture officers. However, as stated by some village leaders, the extension officers are not frequently available due to their limited time and problems with transportation.

Finally, miscommunication on challenges faced by villages results in misconception about villages' vulnerabilities: respondents at the District level tend to perceive villages in the highlands as less vulnerable to climate extremes. However, village leaders reported that, in case of droughts, local livelihoods are usually severely affected.

Competing priorities

It is not clear to what extent CC is considered a priority for development practice across different levels. At the District level, the interpretation of development varies across sectors: whilst the planning officer identified industrial growth and extractive industries as a key aspect of local development (in line with the 5YDP), agriculture and environment officers identified protection of natural resources, sustainable land management and water supply as the development priorities for the District. At the Ward and village levels, the identified development objectives are not always closely related to CC, as the most reported development priorities are infrastructures for health and education (e.g. building classrooms or dispensaries). Thus, competing interests and development priorities might reduce attention for climate issues.

7. Partnerships with external actors are useful to overcome some of these barriers, but they can have some drawbacks

Village leaders declared that through development and conservation projects villagers learnt about CC issues. The district staff pointed out that projects are important in the provision of skills and expertise on CC measures that are lacking at the village level. For instance, through the Pangani River Basin Management Project villages are receiving technical support to formulate VLUMPs.

At the same time, reliance on external support may reduce local actors' attention for CC issues. For instance, a village leader pointed out that, since partner NGOs are already including CC measures in their projects, CC is not a priority for village development.

Reliance on external actors ties the integration of development and CC in the District to their agendas. The presence of different NGOs and projects focused on conservation results in a predominance of CC action in natural resources management. At the same time, measures in some key climate sectors, e.g. energy or health, are not being considered in local development practices. Finally, one respondent from the District Council reported that external projects usually fail to produce significant changes in long-term development practices, due to their short-term focus.

8. Environmental education and institutional arrangements are perceived as opportunities for integration

According to an NGO respondent, the current understanding of the impacts of local environmental degradation (namely deforestation) on CC offer an opportunity for integrated approaches to development at the village level. In this sense, environmental education might facilitate the implementation of reforestation and forest conservation activities, with simultaneous benefit for local development and CC objectives.

Moreover, as mentioned by an interviewee from an NGO, national sectoral policies can establish guidelines for local practice and, as such, can represent an opportunity for integration. For instance, the National Agriculture Policy includes guidelines on climate smart agriculture useful for development practice at the local level. At the same time, as pointed out by another NGO respondent, national policies in other sectors, such as water or energy, do not provide specific details on measures to integrate climate and development.

Concluding remarks

This study suggests that moving towards CCD is currently a major challenge for sub-national levels. Several barriers to the integration of climate and development strategies were identified. Some of these barriers are related to local level issues (e.g. lack of expertise on CC, ineffective communication between all levels); others depend on national level processes (e.g. the lack of funding for CC from the national government, the lack of CC consideration in the 2025 Tanzania Development Vision). As a result, moving towards CCD would require both building capacity at local levels to cope with CC impacts and enhancing coordination between the District and the national government.

The findings also show that external actors play a pivotal role in the implementation of on-the-ground activities addressing CC. For this reason, cooperation between these actors and local administration is important to ensure that measures to cope with CC are consistent with local development objectives. Currently, CC measures are mainly channelled through natural resources management projects. However, climate action should be expanded to other sectors, since, according to the 5YDP, industry, energy and infrastructure will be central in future Muheza District development.

Within Muheza District, CC is framed as an environmental issue, linked to local environmental degradation and affecting rainfall patterns. However, it is widely accepted that CC is not only an environmental issue, but also a development one: on the one hand, CC is a stressor to development efforts, as its impacts might hinder achieving of development objectives, on the other, current and future development pathways will determine the magnitude of CC. Raising awareness of CC as a development issue might facilitate the inclusion of adaptation and mitigation measures in local development planning.

Some respondents identified environmental education and national policies as opportunities to integrate climate strategies in local development. Indeed, through the cross-sectoral and participatory development of VLUMPs such integration should be possible. Additional opportunities might derive from Climate Smart Agriculture (CSA) and REDD+ activities. Adopting a CSA approach in the agriculture sector and linking forest conservation to REDD+ might help expand local climate action (currently limited to adaptation) to mitigation objectives. However, the potential of both CSA and forest conservation to accomplish development, adaptation and mitigation objectives in Muheza District should be empirically assessed, as their effectiveness is sometimes questioned and it is strictly dependent on contextual factors, such as the degree of policy support at the national level.

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