

# **Behaviour, political inaction and the adaptation implementation gap**

**Unlocking flood and drought preparedness in public finance  
through a beta application of the Multi-Actor Behaviour  
Journey methodology**

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# **Behaviour, political inaction and the adaptation implementation gap: Unlocking flood and drought preparedness in public finance through a beta\* application of the Multi-Actor Behaviour Journey methodology**

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## **Abstract**

National adaptation commitments are consistently only minimally translated into funded action, resulting in an enduring adaptation implementation gap. This challenge has appeared relatively intractable, as existing adaptation literature has struggled to specify how recurring political economy barriers to policy implementation can be overcome in practice. We present the first empirical demonstration of a new Multi-Actor BEhaviour Journey (MABEJ) methodology, developed and iteratively refined through this case study in its initial (beta) form. MABEJ is designed to trace cumulative system outcomes from interdependent behaviours across sequential policy steps, to identify how policy objectives get prioritised or displaced and where practical leverage points for change exist. MABEJ draws on behavioural science, human-centred design, systems thinking and interdisciplinary critical social science perspectives to extend behavioural research to more complex, multi-actor challenges, while accounting for the power dynamics and structural inequalities at the heart of adaptation policy outcomes. This formative application of MABEJ, which continues to undergo further methodological development, examines an acute manifestation of the adaptation implementation gap: the chronic under-prioritisation of flood and drought preparedness in national budgeting processes. We ground this demonstration in Tanzania's national budgeting process, which resembles public financial management processes elsewhere and exemplifies difficulties translating high-level adaptation commitments into funded action globally. MABEJ diagnoses why gaps between desired and current adaptation outcomes persist, showing where change would matter most, what behavioural determinants would need to shift and who has the capacity to act. This illustrates MABEJ's potential to transform ostensible political and institutional inertia around adaptation into a diagnosable and addressable set of behavioural dynamics, pointing to its value as part of a toolkit for closing the adaptation implementation gap.

**Keywords:** Climate adaptation policy process; Behavioural public policy; Political economy of adaptation; Disaster Risk Reduction; Climate finance; Tanzania; Leverage points

## **Highlights:**

- MABEJ connects adaptation research to the action-orientation of behavioural science
- First empirical demonstration of MABEJ, a new multi-actor behaviour methodology
- Extends behavioural research to ostensibly intractable adaptation policy challenges
- Diagnoses why adaptation commitments stall, and who can act to close the gap
- Translates adaptation barriers into behavioural determinants for intervention

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**\* This beta version represents an early exploratory application of the MABEJ methodology, which continues to evolve. Readers are therefore encouraged to consult subsequent updates to both the methodology and this paper.**

## 1. Introduction

Despite growing recognition of accelerating climate risk, national adaptation commitments are only minimally consistently translated into funded action, resulting in an enduring implementation gap on the ground (Berrang-Ford et al., 2021; Malik & Ford, 2024; Runhaar et al., 2018; UNEP, 2025). Across sub-Saharan Africa, hereafter referred to as ‘Africa’, this gap leaves populations bearing the higher human and economic costs of hazards, as governments forgo the substantial development and resilience gains associated with preparedness-based adaptation (Ansah et al., 2024; Hallegatte et al., 2019; Trisos et al., 2022; Rising et al., 2026; Tanner et al., 2015; UNDRR, 2025; UNEP, 2025). Research has called for the importance of analysing the upstream drivers behind such policy implementation gaps (Eriksen et al., 2015; Pardoe et al., 2020). But, to date, adaptation research has struggled to move from identifying recurring structural and political economy barriers to specifying how these can be overcome in practice (Biesbroek et al., 2015, 2013; Eisenack, 2014; Lee et al., 2022).

Behavioural research offers a distinctive approach, often linking diagnosis of behavioural drivers to practical interventions designed to change real-world outcomes (Hallsworth, 2023). This action-orientation, with its emphasis on understanding the behavioural processes through which outcomes are produced, and identifying leverage points for change, makes it particularly well-suited to addressing implementation gaps. Yet behavioural approaches have been under-explored in adaptation, including for water security and countries in the Global South (Conway, 2024).

Realising its potential will require extending behavioural research beyond its conventional scope (Mikołajczak et al., 2025). Standard behaviour change approaches have typically focused on individual citizens and service users, rather than on the interconnected behaviours of powerful actors across multiple scales that drive complex policy outcomes (Read and Selinske, 2024) and which underpin the structural drivers of vulnerability to climate change. Behavioural approaches have also tended to overlook the power dynamics and structural inequalities that are at the heart of adaptation policy outcomes (Chater and Loewenstein, 2023).

In adaptation, this risks individualising responsibility for climate risk and preparedness, while leaving the institutional decisions, resource allocations and political choices that shape exposure, vulnerability and adaptive capacity unexamined. This is particularly problematic in resource-constrained contexts such as sub-Saharan Africa, where a climate justice perspective demands attention to the structural drivers of vulnerability rather than the behaviours of those least responsible for, and able to address, climate risk (Ingram & Gannon, 2025). We assert that behavioural research for adaptation in Africa therefore requires shifting the unit of analysis away from individual responsibility and towards the collective and structural production of adaptation outcomes.

Towards this goal, we propose an approach that examines how adaptation implementation gaps are collectively produced through the interconnected behaviours of multiple policy actors and which identifies the leverage points through which targeted change could reorient towards implementation. We test and demonstrate, for the first time, an initial (beta) version of a new Multi-Actor Behavioural Journey (MABEJ) methodology (Mikołajczak et al., 2026, *under review*), designed to trace cumulative system outcomes from interdependent behaviours across sequential policy steps – to identify how policy objectives get prioritised or displaced and where leverage points for change exist. This first application, through which MABEJ was developed, tested and iteratively refined, examines a particularly acute manifestation of the adaptation implementation gap: the chronic under-prioritisation of flood and drought preparedness in national planning and budgeting processes (Nhemachena et al., 2024; Rising et al., 2026).

We focus our analysis on Tanzania, which exemplifies the pattern commonly seen globally: that even where mature national climate policy frameworks exist, adaptation strategies are typically poorly mainstreamed into budgetary frameworks. Understanding how policy priorities become displaced during implementation remains a persistent challenge across public and environmental policy domains (Howlett, 2009; Hupe, 2014). Approaches capable of tracing these dynamics – and identifying leverage points for change – are therefore urgently needed.

## **2. The adaptation gap in Africa: National budgets as critical implementation arenas**

The UNFCCC, notably through the Cancún Adaptation Framework and the Paris Agreement, has progressively strengthened expectations that countries mainstream anticipatory adaptation planning across sectors and levels of government (UNFCCC, 2011; 2015). National Adaptation Plans (NAPs) have emerged as the principal adaptation planning mechanism and 26 African countries have now formally submitted a NAP; more than any other region globally (UNFCCC, 2026). Yet, NAPs are rarely accompanied by clear links to responsible institutions, delivery mechanisms, timelines, resourcing strategies, or monitoring systems necessary to support implementation (Nowak et al., 2024; Leiter, 2021). Thus, consistent with broader international experience (Lee et al., 2022; UNFCCC, 2025; Woodruff & Regan, 2018), NAPs in Africa frequently remain stranded at the level of plans on paper (Nhemachena et al., 2024; Nowak et al., 2024; Odhiambo et al., 2025).

This challenge is commonly manifest in national budgeting processes. These are critical implementation junctures through which competing development priorities are negotiated and translated into public expenditure decisions, determining whether domestic resource allocation is aligned with stated adaptation policy objectives (Krause et al., 2016; OECD, 2019). The importance of integrating adaptation considerations into national budgeting systems is often recognised in NAPs themselves, yet provisions for translating NAP priorities into fiscal planning and budget formulation remain largely absent (Hernández et al., 2025).

As a result, adaptation priorities must typically be voluntarily carried and negotiated through successive stages of budget preparation by sectoral ministries, departments and agencies (MDAs), rather than being supported by institutional mechanisms that prompt, require or incentivise adaptation to be reflected in expenditure decisions across government (UNDP, 2022). In this context, anticipatory adaptation priorities struggle to compete for scarce public resources in African national budgets, contributing to a pattern in which finance is mobilised more readily for post-impact response and recovery (Coetzee et al., 2023). Adaptation implementation also occurs in an ad hoc and fragmented manner, reducing efficiencies across sectors and alignment to nationally determined adaptation objectives and the institutional structures needed to sustain implementation over time (Aly et al., 2026; Bhattacharya et al., 2022; Pauline et al., 2023). This situation is made worse by international adaptation finance often bypassing national budgeting systems through project-based and off-budget modalities (Cichocka and Mitchell, 2022).

## **3. Conceptual and analytical framework: a multi-actor behavioural approach for understanding implementation gaps in adaptation policy processes**

### **3.1 Beyond barrier identification**

A substantial body of adaptation scholarship has sought to explain why high-level policy commitments consistently fail to translate into funded preparedness action. Political economy, governance, and implementation science literatures have documented a vast number of recurring barriers to adaptation policy implementation across a range of sectors, geographies and levels of governance. Barriers are generally presented as potentially surmountable obstacles to progress on adaptation (Dow et al., 2013; Moser & Ekstrom, 2010) which, as Biesbroek et al., (2013) and Eisenack et al., (2014) establish, can only be understood and addressed through the actions of the actors who produce them. In behavioural terms, these barriers function as determinants of behaviour, bearing on actors' capability, opportunity and motivation to act; conditions which the COM-B framework identifies as necessary for any behaviour to occur (Michie et al., 2011).

Adaptation literature has tended to foreground structural barriers that particularly shape capability and opportunity within the COM-B framework (ibid). Common examples range from generic constraints, such as resource gaps, uncertainty and knowledge and information barriers (Lee et al., 2022; Measham et al., 2011; Rogers et al., 2023), to those more specific to the institutional and political dimensions of adaptation governance, such as self-reinforcing organisational routines (Uittenbroek, 2015), constrained decision-making authority (Rogers et al., 2023), policy incoherence, institutional fragmentation, weak coordination and unclear mandates (Averchenkova et al., 2019; England et al., 2018; Lee et al., 2022; Runhaar et al., 2018). This literature is also increasingly documenting barriers that are more explicitly psychological or motivational in

nature, such as the absence of problem ownership, or a bias toward reactive spending where costs are immediate and visible (Pardoe et al., 2018a; Runhaar et al., 2018; Tanner et al., 2015).

Yet while behavioural research is increasingly called for in the wider adaptation literature (Singh, 2025; Conway, 2024; Grothmann & Patt, 2005; van Valkengoed & Steg, 2019), to date these literatures have focused on barriers as discrete obstacles to be identified and classified, rather than on examining how they are enacted through the concrete and interacting behaviours of multiple actors operating within negotiated decision-making processes (Biesbroek et al., 2015; Bisaro et al., 2018; Eisenack et al., 2015; Lee et al., 2022). Barriers have accordingly been under-theorised as behavioural determinants and largely unconnected to the behavioural-science traditions that might indicate how they could be leveraged for change in adaptation policy implementation.

As a result, analysis has tended to remain descriptive rather than explanatory and the recommendations that follow from literature – such as calls for clearer mandates, enhanced cross-sectoral collaboration mechanisms and capacity building (e.g. England et al., 2018; Lee et al., 2022; Pardoe et al., 2018b; Pilato et al., 2018; Sumari et al., 2025; Weitz et al., 2017) – rarely specify precisely what would need to change, by which actors, at which points in a decision sequence, for such reforms to materialise. Recommendations are therefore often difficult to act upon in practice, offering limited guidance on where and how to intervene within the specific processes through which adaptation and preparedness is prioritised or displaced (Biesbroek et al., 2015; Eisenack et al., 2015, 2014; Lee et al., 2022).

Taken together, these limitations point to a need for an approach that can complement existing structural analysis by bringing a more granular, behaviourally-explicit, and process-embedded lens to understanding why adaptation commitments often fail to translate into action. Such an approach, we argue, needs to trace the concrete cumulative behaviours among multiple actors that shape how adaptation decision-making actually unfolds within specific, sequential and negotiated policy implementation processes (c.f. Biesbroek et al., 2015, 2013; Eisenack et al., 2015, 2014). To address the adaptation-implementation gap it needs to identify potential leverage points for change in a way that is useful for policy analysts and practitioners to act on.

### 3.2 Multi-Actor Behavioural Journey (MABEJ): an integrated framework for behavioural diagnosis in complex policy processes

This paper presents the first empirical application of an initial (beta) version of a new Multi-Actor Behaviour Journey (MABEJ) methodology, which, as described in an accompanying methodological paper (Mikolajczak et al., 2026, *under review*), was developed, tested and iteratively refined through the case study presented here. MABEJ was created to address a methodological gap contributing to the limited analytical scope of the existing policy implementation and governance literature described above: The absence of a behavioural tool to map and diagnose complex, multi-actor and multi-scale policy and administrative processes. Addressing recent calls to extend behavioural applications beyond discrete individual behaviours, towards more complex, multi-actor policy challenges (Chater and Loewenstein, 2023; Mikolajczak et al., 2025; Read and Selinske, 2024; Varazzani, & Hubble, 2025), MABEJ draws on behavioural science, human-centred design, systems thinking and interdisciplinary critical social science perspectives to attend to structural dynamics, power relations and behavioural interactions in complex social systems.

MABEJ is an explicitly political method. Oriented towards a normatively-defined desired system outcome for a policy process (defined, for example, in policy, or by a political movement), it diagnoses why the policy process falls short of achieving this desired outcome and identifies where and how actors might act to close the gap. In the initial (beta) version presented here, MABEJ organises analysis around a matrix structure in which the sequential steps of a policy process form the X-axis, and seven further analytical layers - applied at each step - form the Y-axis (see Table 1). For each step, it defines the intermediate outcomes that must be in place for the desired system outcome to be achieved, then compares these against the current outcomes at that step to reveal where, across the process, the system falls short. The matrix then maps desired behaviours (across individual, group and institutional levels) needed to achieve these desired system outcomes, determinants of those desired behaviours (foremost as barriers) and the distribution of power and leverage.

Power concerns who has the capacity to influence desired system outcomes. In MABEJ (beta), power analysis draws on Avelino's (2017: 507) relational typology, which treats power as socially constituted and distinguishes who holds "power over" whom, who has "more or less power to" act, and who has "different power to" act. Leverage, by contrast, identifies when in the cycle shifts in behaviour would have the greatest potential to alter the trajectory of subsequent decisions and outcomes. The COM-B framework is used to identify and categorise the capability, opportunity and motivation factors that enable or constrain desired behaviours at each step (Michie et al., 2011).

A response techniques layer then turns this diagnosis towards action, identifying the kinds of intervention suited to shifting the particular capability, opportunity and motivation barriers found at each step. A final pathways to influence layer then asks which of the leverage points identified fall within a specified actor's potential sphere of influence. It integrates the preceding analysis by situating possible response techniques within that actor's positionality, resources and relationships, identifying which techniques they could realistically use, at which steps, to shift the system towards the desired outcome.

*Table 1: MABEJ analytical layers and their underlying research questions*

| <b>MABEJ analytical layers</b>    | <b>Research question(s) for each layer</b>                                                                                                                                       |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LAYER1-STEPS-IN-THE-PROCESS       | What are the stages of the policy process? What actors and behaviours constitute them? And what is the procedural context?                                                       |
| LAYER2-DESIRED-OUTCOMES           | What intermediate outcomes are required at each step for the desired system outcome to be achieved?                                                                              |
| LAYER3-CURRENT-OUTCOMES           | How do current outcomes at each step compare with the desired intermediate outcomes?                                                                                             |
| LAYER4-DESIRED-BEHAVIOURS         | Who would need to do what differently at each step for the desired intermediate outcomes to be achieved?                                                                         |
| LAYER5-POWER-AND-LEVERAGE         | Who has power to influence desired outcomes, in what way and over whom, and where in the process would change be most consequential for subsequent decisions and outcomes?       |
| LAYER6-DETERMINANTS-OF-BEHAVIOURS | What capability, opportunity and motivation (COM-B factors) currently influence the desired behaviours?                                                                          |
| LAYER7-RESPONSE-TECHNIQUES        | What solutions are available to address one or more of the identified barriers?                                                                                                  |
| LAYER8-PATHWAYS TO INFLUENCE      | Which identified leverage points and response techniques fall within a given actor's sphere of influence and what actions could they realistically pursue to influence outcomes? |

Existing methodological tools each address parts of the challenge that MABEJ aims to address (Mikołajczak et al., 2026, *under review*). Behaviour journey mapping traces sequential behavioural steps within a process, considering how they are shaped by the contexts in which they occur, but typically limits analysis to a single type of actor (Lambe et al., 2020; Voorheis et al. 2025). Behavioural system mapping (e.g. Hale et al., 2022) accounts for multiple actors, feedback loops and complexity, but has more limited capacity to capture details of the behavioural context. Neither approach explicitly attends to the dynamics of power and influence that are central to policy and adaptation processes.

This paper represents the first empirical application of MABEJ, serving the dual purpose of developing, testing and refining the initial (beta) version of the methodology (described in detail in Mikołajczak et al., 2026 *under review*) and generating insights to address the core research question of the present paper: why flood and drought preparedness remains under-prioritised within Tanzania's national budgeting process and how targeted, behaviourally-informed interventions could shift this? Here, the desired system outcome is flood and drought preparedness being adequately funded and coordinated across the budget cycle through MDA budgets in line with plans set out in the National Climate Change Response Strategy (NCCRS) (URT, 2021a), the National Disaster Management Strategy (NDMS) (URT, 2022) and preparedness plans set out in sectoral plans and strategies. This paper responds to broader recognition within adaptation scholarship that different analytical approaches to institutional processes can yield distinct and complementary insights (Bisaro et al.,

2018), and that the field must necessarily continue pluralising its frameworks in response to the complexity of adaptation challenges (Singh, 2025).

### 3.3 An example of an adaptation implementation gap: flood and drought preparedness in Tanzania's national budgeting process

Tanzania is a fitting case, exemplifying the gap between mature climate policy and funded preparedness action. Although adaptation has fluctuated in political salience, the country's policy architecture has evolved through early adoption of international adaptation planning instruments and subsequent layering and revision of national climate policies (Pardoe et al., 2020, 2018a). Tanzania submitted its first National Adaptation Programme of Action to the UNFCCC in 2007 (URT, 2007). This was followed by a National Climate Change Strategy, adopted in 2012 (URT, 2012b), revised as the NCCRS in 2021 (URT, 2021a), under further revision in 2026. A NAP was published in 2025 (URT, 2025a), alongside successive Nationally Determined Contributions (NDCs). These dedicated climate instruments articulate floods and droughts as priority climate hazards and the NCCRS anchors adaptation in proactive disaster preparedness (URT, 2021a), as the NDMS signals a move beyond its historically response-oriented focus (URT, 2022).

General adaptation commitments have also been progressively integrated within macro-level policy frameworks, including the current long-term development vision (URT, 2025) and successive medium-term (5-year) development plans (URT, 2021a). Together with a range of additional supportive policies and plans (e.g. URT, 2012b, 2017) these high-level climate policies mandate ministries, departments and agencies (MDAs) and local government authorities (LGAs) to prepare for climate risks within their sectoral and development planning processes (Ndesanjo & Asokan, 2023). Sectoral plans and policies accordingly increasingly reference climate risks and adaptation, suggesting a degree of horizontal and vertical policy mainstreaming (England et al., 2018; Pardoe et al., 2020, 2018a). Some go further into preparedness specific provisions. For example, the Agriculture Climate Resilience Plan (URT, 2014) prioritises measures to prepare for and respond to weather-related shocks, while the Water Sector Development Programme Phase III (URT, 2022) sets strategies and targets related to flood and drought early-warning, forecasting and contingency-planning systems.

Within the framework of horizontal mainstreaming, adaptation expenditure should be incorporated within sector level plans and budgets, yet policy provision has not translated into substantive change in sectoral budgeting practices (REPOA, 2023). Instead, in the context of highly constrained budgets, adaptation and preparedness-oriented activities are frequently deprioritised or omitted altogether. The Prime Minister's Office-Disaster Management Department (PMO-DMD), the primary office for Disaster Risk Management (DRM) coordination, for example, directs only approximately 25% of its DRM budget toward preparedness versus response (URT, 2025b). Meanwhile the Ministry of Water (MoW) allocates only an estimated 6% of its budget to water resource management – the function most relevant to flood and drought resilience – against approximately 75% to water supply (TaWaSaNET, 2023). As seen elsewhere in Africa, much preparedness financing is therefore secured through off-budget development partner support, with weak coordination across national planning priorities (Ampaire et al., 2016; REPOA, 2023). And spending continues to favour post-impact response over preparedness investment (Pardoe et al., 2018a; Sumari et al., 2025).

Tanzania-specific literature explains under-prioritisation of preparedness through many of the interacting barriers identified in Section 3.1. Opportunity barriers, as defined by COM-B (Michie et al., 2011), are particularly prominent. National adaptation policy frameworks stop short of specifying the financing strategies, actual budget costs and operational mechanisms required to translate mainstreaming mandates into sectoral and sub-national action (Ampaire et al., 2016; Pardoe et al., 2018a; Pilato et al., 2018; Sumari et al., 2025). Correspondingly, there are no dedicated adaptation budget lines or clear strategies to guide the mobilisation of finance towards adaptation in the national budget (REPOA, 2023). Weak accountability architectures, including the absence of binding compliance mechanisms and functional climate finance monitoring systems, further limit implementation (Sumari et al., 2025).

Inconsistent high-level political leadership and overlapping mandates across climate, DRM and sectoral agencies, meanwhile, diffuse ownership of preparedness, complicate the cross-sectoral coordination that budget integration requires and reinforce sectoral power imbalances (Nachmany, 2018; Nemakonde &

Niekerk, 2017; Pardoe et al., 2020, 2018a; Pilato et al., 2018; Sumari et al., 2025). Severe fiscal shortfalls in climate-mandated institutions and key sectors further constrain opportunities for coordination, entrenching institutional silos as concerns over cost recovery and free-riding fuel inter-ministerial competition (Pardoe et al., 2018a, 2020).

Capability barriers include gaps in technical expertise that constrain the quality of preparedness proposals reaching budget processes (Pilato et al., 2018). Motivation barriers include individual risk perception, self-efficacy, organisational culture and the discursive frames through which officials interpret and communicate climate risks, shaping whether preparedness is championed as an urgent fiscal priority or displaced by more immediate concerns (Pardoe et al., 2018a).

#### 4. Methods

The question addressed here emerged from a co-design process within BASIN: a transdisciplinary project bringing together academic and non-governmental organisation (NGO) partners to test the potential of behavioural approaches to address climate adaptation across multi-level water security action in Africa (Ingram et al., 2025). Through this process, practitioners from NGO partners identified persistent cross-sectoral prioritisation of reactive responses to floods and droughts over anticipatory risk reduction as a foremost barrier to achieving their water security mandates, echoing the implementation gap documented in section 2. They converged on the systematic absence of flood and drought preparedness provision and coordination within MDA budgets as a particularly acute expression of this challenge, and the priority target for investigation. The seeming and persistent intractability of this challenge required a behavioural, multi-actor and process-embedded lens that existing tools could not provide, prompting the development and application of MABEJ (section 3.2).

Semi-structured, in-depth individual or small-group (2-5 person) interviews were conducted in 2025 with 43 respondents, purposively sampled across government and non-government institutional actors (Table 2). Sampling prioritised sectoral MDAs with flood and drought preparedness mandates, as the actors whose roles, budget allocations and activities most directly determine preparedness outcomes. It also prioritised NGOs and network organisations with advocacy, oversight and accountability functions. The national budgeting cycle is preceded by a bottom-up community budgeting phase. This LGA-level process was treated as out of scope of the analysis to allow the depth of focus on MDA-level budgeting that MABEJ requires and engagement with local government was scoped foremost through the President's Office-Regional Administration and Local Government ministry (PO-RALG), which sits at the interface between national planning processes and local government implementation – although implementation challenges have been documented here too (Fjeldstad et al., 2010; Pauline et al., 2023). Interviews were conducted in English and Swahili and audio recorded and transcribed by human transcribers. Swahili-language interviews were translated into English by bilingual team members and research assistants.

The interview protocol was designed to elicit information to populate provisional MABEJ layers (Mikolajczak et al., 2026, *under review*). Given that this was the first empirical application of MABEJ, through which its initial (beta) version was developed and tested, the analytical process was necessarily iterative, and the study was exploratory in character. Interview data informed the ongoing development and refinement of the methodological framework alongside its application. Transcripts were analysed iteratively using a coding framework structured foremost around the initial MABEJ layers, applied deductively but refined inductively as analysis progressed.

Table 2: Interview respondents by institutional actor type and role

| Actor type     | Role in flood and drought preparedness and national planning and budgeting                                           | Illustrative respondent affiliations                                                                                                                                                                                                                                 | N  |
|----------------|----------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|
| Government     | Mandate holders for national planning and budgeting with responsibilities relevant to flood and drought preparedness | Ministry of Water (MoW), President's Office Regional Administration and Local Government (PO-RALG), Tanzania Meteorological Authority (TMA), Vice President's Office-Environment (VPO-Environment), Prime Minister's Office-Disaster Management Department (PMO-DMD) | 16 |
| Non-government | NGOs, CSOs and network organisations with advocacy, oversight and accountability functions                           | Tanzania Water and Sanitation Network (TAWASANET), SNV, GIZ, Water for People, Tanzania Red Cross Society, WWF Tanzania, WaterAid Tanzania, Global Water Partnership, Shahidi wa Maji                                                                                | 27 |
| Total          |                                                                                                                      |                                                                                                                                                                                                                                                                      | 43 |

LAYER1-STEPS-IN-THE-PROCESS – comprising steps in Tanzania's national annual budgeting process – was first mapped through document analysis, drawing on targeted searches of online databases and documents sourced through project partners and from snowball sampling during interviews. LAYER1-STEPS-IN-THE-PROCESS was then elaborated and refined during interviews, which asked respondents to trace their understanding of, and interaction with, the national budgeting cycle, and to identify further relevant documents clarifying this process. In addition, for each step in the budgeting process, respondents were asked questions aligning with each of the MABEJ analytical layers (see Table 1). Document review was also used to triangulate participants' accounts and as a source of further evidence, particularly for claims about institutional mandates for multiple layers of the MABEJ analysis.

MABEJ's analytical layers vary in their degree of interpretive and inferential distance from the data (Mikolajczak et al., 2026, *under review*). LAYER1-STEPS-IN-THE-PROCESS, LAYER3-CURRENT-OUTCOMES, LAYER6-DETERMINANTS-OF-BEHAVIOURS and LAYER5-POWER-AND-LEVERAGE are grounded most directly in the empirical data. LAYER2-DESIRED-OUTCOMES and LAYER4-DESIRED-BEHAVIOURS involve an additional layer of normative judgement: derived from respondents' accounts of what effective preparedness governance would require, shaped also by the normative goals of NGO partners and the BASIN project. LAYER7-RESPONSE-TECHNIQUES involves a further inferential and design step, involving reasoning about which determinants could realistically be shifted and through what kinds of action, drawing indicatively on established correspondence between behavioural determinants and intervention types, such as those catalogued in the Behaviour Change Wheel (Michie et al., 2011).

LAYER8-PATHWAYS-TO-INFLUENCE considers LAYER7-RESPONSE-TECHNIQUES from the vantage point of a given target actor and their own positionality and power to influence behavioural determinants at key steps in the process. In our case, the specific actor considered was Shahidi wa Maji (SwM), a BASIN NGO partner with a strong advocacy tradition in Tanzania's institutional landscape, with whom LAYER2-DESIRED-OUTCOMES and LAYER8-PATHWAYS-TO-INFLUENCE were developed through participatory co-design across the author team. Given the interpretive and design-oriented nature of LAYER7-RESPONSE-TECHNIQUES and LAYER8-PATHWAYS-TO-INFLUENCE, we position our analysis of these within the discussion section of this paper.

A tabulated summary of the MABEJ analysis is provided in Figure 2. The full layer-by-layer, step-by-step MABEJ mapping generates considerable detail. This high-level synthesis, as well as decisions about which features of the data to highlight in the results, was refined through multiple rounds of iteration, as the most salient findings were distilled. Given the political sensitivity of actor-specific findings, results are reported at a level of aggregation that protects participant anonymity and preserves productive relationships with the actors involved. Internal analytical outputs retain actor specificity to inform co-designed intervention strategies.

Throughout the results, references to MABEJ analytical layers, process steps and behavioural determinants are capitalised for clarity.

## **5. Results: multi-actor behavioural journeys in national planning and budgeting processes**

### **LAYER1-STEPS-IN-THE PROCESS**

Tanzania's national planning and budgeting process cycles annually and is centred on the period from August to the following July. Through LAYER1-STEPS-IN-THE-PROCESS, it is mapped across six broadly sequential steps (see Figure 1). These run from annual priority-setting, which establishes the fiscal and policy parameters for budget preparation through the annual Planning and Budget Guidelines (PBGs) and sectoral ceilings disseminated to MDAs and LGAs (STEP1). The PBGs are the annual instrument translating national priorities into instructions for all MDAs, setting the framework for subsequent budget preparation and review. The process then proceeds through MDA budget preparation (STEP2), multiple rounds of technical and political review (STEP3–5); to approval, budget execution and monitoring (STEP6). Under Tanzania's decentralisation-by-devolution framework, this national cycle is preceded by a bottom-up community planning phase, typically May-July of the prior cycle), which is consolidated into district plans for submission to PO-RALG to feed into the national planning and budgeting process at STEP2.

### **LAYER2-DESIRED-OUTCOMES and LAYER3-CURRENT-OUTCOMES**

MABEJ explicitly articulates the desired intermediate outcomes required at each step of the budgeting process for flood and drought preparedness to be effectively funded and coordinated. As summarised in Figure 2, our data suggest that there is a large gap between LAYER2-DESIRED-OUTCOMES and LAYER4-CURRENT-OUTCOMES at each step, with none of the LAYER2-DESIRED-OUTCOMES currently met at any step.

The gap between the LAYER2-DESIRED-OUTCOMES and LAYER3-CURRENT-OUTCOMES is narrowest at STEP1. The LAYER2-DESIRED-OUTCOME at STEP1.3 is that the PBGs contain concrete instructions and requirements for accounting for flood and drought preparedness in MDA budgets, as are already applied to other budget priorities within the PBGS – for example, per-child allocations for nutrition services for LGAs (URT, 2023). The LAYER3-CURRENT-OUTCOME at STEP1.3, evidenced in the 2024/25 PBGs, is that although MDAs are instructed to consider climate change and environmental issues, these provisions lack preparedness-specific guidance, coding requirements and compliance mechanisms (URT, 2023).

*Figure 1: Steps in Tanzania's National Budgeting Process (LAYER1-STEPS-IN-THE-PROCESS)*

Actor and policy instrument acronyms: Ministry of Finance (MoF); President's Office-Planning and Investment (PO-PI); National Audit Office (NAO); Ministries, Departments and Agencies (MDAs); Local Government Authorities (LGAs); Medium-Term Expenditure Framework (MTEF); Inter-Ministerial Technical Committee (IMTC)

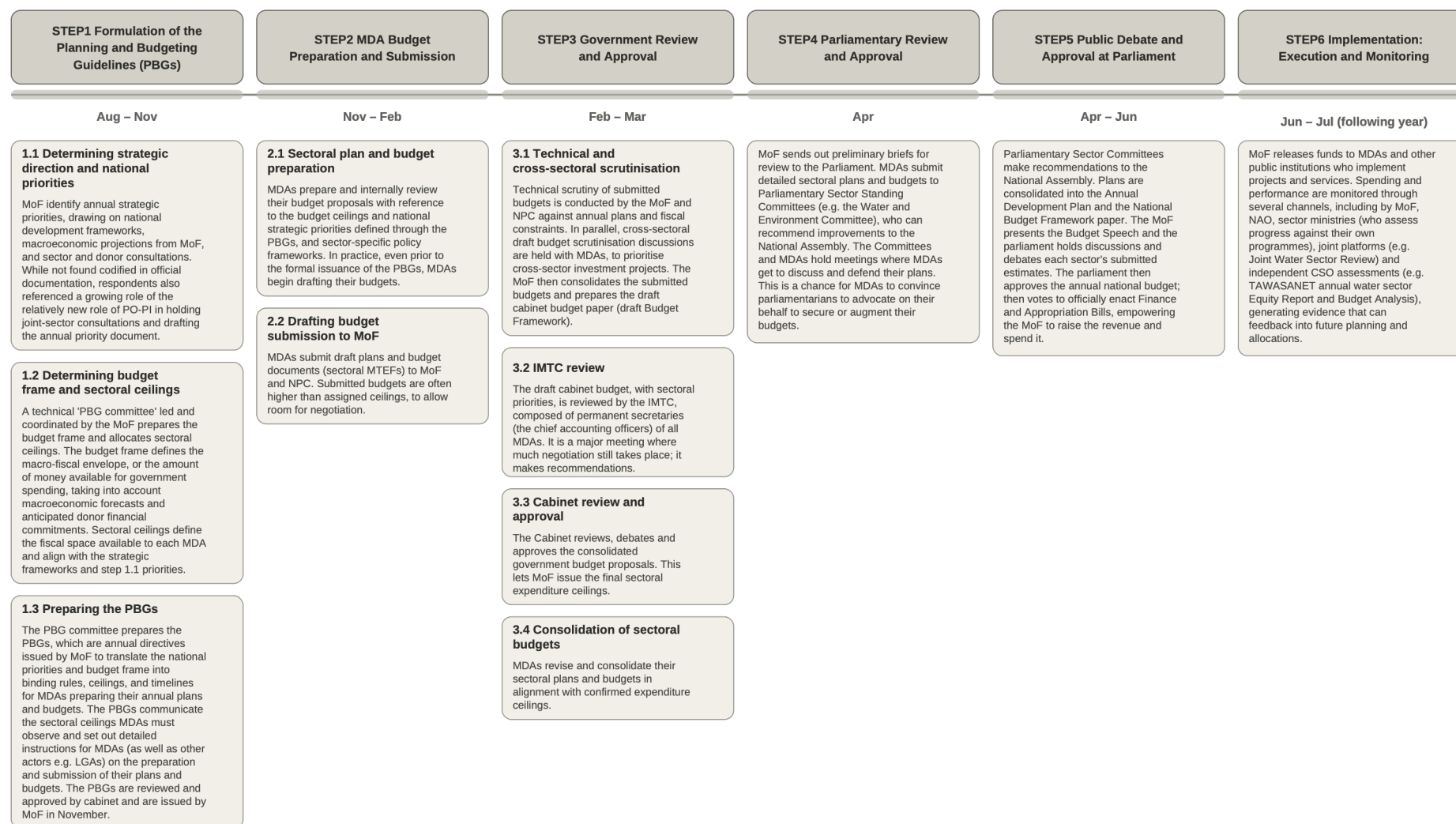
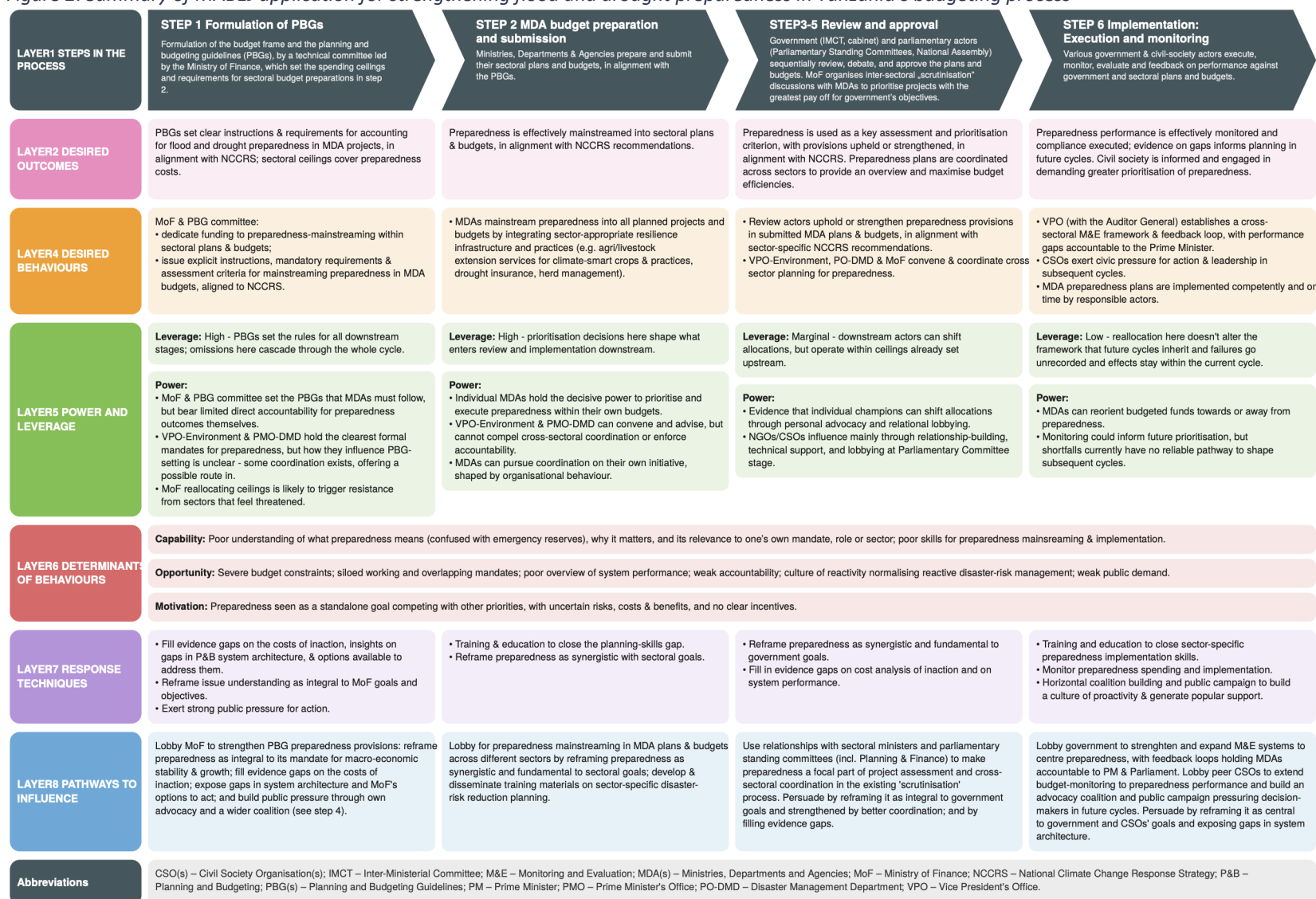


Figure 2: Summary of MABEJ application for strengthening flood and drought preparedness in Tanzania's budgeting process



#### LAYER4-DESIRED BEHAVIOURS

Across the six steps, different actors and behaviours are foregrounded in LAYER4-DESIRED-BEHAVIOURS, yet the behaviours that are required of actors at each step largely follow the same underlying rationale: Namely, that those with decision-making influence at a given step actively champion flood and drought preparedness as an explicit priority, work to embed it within the instruments and allocations under their influence, and defend it against displacement by competing demands. These identified LAYER4-DESIRED-BEHAVIOURS are largely absent at all steps.

At STEP1, LAYER4-DESIRED-BEHAVIOURS include the technical committee (led by MoF) that prepares the PBGs articulating strong preparedness provisions in the PBGs, including: 1) explicitly naming flood and drought preparedness as a fiscal imperative; 2) providing specific instructions to MDAs for how to account for preparedness in plans and budgets in line with the NCCRS, the NDMS and sectoral plans and strategies; and 3) providing procedural mechanisms, such as budget templates and compliance indicators, that make preparedness allocations visible and assessable within MDA budgets.

At STEP2, LAYER4-DESIRED-BEHAVIOURS include MDAs actually embedding preparedness provision as a costed priority within their budget submissions and coordinating across institutional boundaries to pool resources and maximise efficiencies. This would likely additionally require, for example, mandated coordination between actors such as PMO-DMD (disaster preparedness), VPO-Environment (climate change) and key sectoral actors, such as MoW (water) initiating cross-sectoral coordination meetings sufficiently proximate to the budget preparation window, to shape and align sectoral submissions. At STEP6, LAYER4-DESIRED BEHAVIOURS also include MDAs implementing their activities in line with preparedness provisions in the budget.

#### LAYER5-POWER-AND-LEVERAGE

Power to shape preparedness is diffuse within the budgeting process. Interviewees described preparedness as negotiated across multiple interdependent actors, with no single actor holding sufficient authority to unilaterally transform preparedness allocations. Leverage is also uneven. Behaviours shaping the PBGs and initial MDA budget submissions were found to be especially consequential because they determine the parameters within which subsequent stages of the budgeting process operate, whereas behaviours downstream primarily scrutinise and hold earlier decisions to account, making only marginal shifts once the budget framework has been set.

At STEP1, MoF and the PBG committee hold disproportionate power over budget formulation, since MDAs are expected to prepare budgets in accordance with the PBGs they issue. Leverage is especially high at STEP1.3 because the PBGs set the framework rules for all subsequent budget preparation, review and execution. Without preparedness provision in the PBGs, MDAs have no requirement during budget preparation (STEP2) or revision (STEP3) to demonstrate how their plans account for preparedness. This absence also contributes to the lack of basis for assessing compliance during review (STEP3-5), and shortfalls remaining hidden through generic reporting at STEP6. Yet MoF and the PBG committee bear limited direct accountability for preparedness outcomes themselves. Adaptation enters the development frameworks that they answer to only as broad ambition, too unspecified to establish what preparedness requires of them or what accountability for delivering it would look like (URT, 2025, 2021a). Interviewees additionally noted that fundamentally reallocating budget ceilings at STEP1 would be politically difficult for MoF, likely generating resistance from sectors that felt their interests threatened. It was not clear in our dataset how the actors with the clearest formal mandates for preparedness, VPO-Environment (climate change) and PMO-DMD (disaster management), influence the MoF and PBG setting at STEP1. Respondents pointed to some existing coordination between these actors, suggesting a potential route through which actors mandated to champion preparedness may influence PBG development, although its current form and influence appeared limited.

At STEP2, VPO-Environment and PMO-DMD can convene and advise, but cannot compel cross-sectoral coordination, require MDAs prioritise preparedness, or hold them accountable for failing to do so. Indeed, respondents from an organisation with a strong mandate for preparedness planning, framed their role as one of 'coordination' and 'oversight' of independent actors, emphasising that resourcing ultimately rests with MDAs themselves. The decisive power to prioritise (STEP2-3) and execute (STEP6) preparedness within their

own budgets thus sits with individual MDAs, who also retain autonomous power to pursue coordination with other MDAs on their own initiative, which interviews highlighted are subject to their own organisational dynamics shaped by competing priorities, influential actors and institutional norms. STEP2 is another highly consequential point of leverage in the cycle, since prioritisation decisions made here shape what enters review and implementation downstream. Even without upstream PBG direction, PMO-DMD or VPO-Environment could in principle use their convening authority to guide and coordinate cross-sectoral preparedness in budget submissions at STEP2, although respondents suggested this is harder to achieve without a PBG signal.

Informal and relational influence is visible at STEP3-5, where individual champions, including ministers, ministry directors, permanent secretaries at IMTC and parliamentarians, can shift allocations through personal advocacy and relationship-based lobbying. Even without PBG provision, in principle MoF budget analysts at STEP3.1, permanent secretaries during the Inter-Ministerial Technical Committee (IMTC) review at STEP3.2, or Parliamentary Committees at STEP4-5 could actively surface inadequate preparedness provisions and create pressure to alter ceilings or allocations. An interviewee described a ministry director successfully persuading MoF to increase a sectoral ceiling through direct, informal engagement, while a separate account credited a Minister with generating a substantial increase in a sector budget over his tenure through sustained advocacy.

Power dynamics also shape where, and through what channels, outside actors can realistically influence the budgeting process. PBG formulation (STEP1), IMTC review and Cabinet approval (STEP3) were described as opaque and largely closed to external actors. In Avelino's (2017) terms, advocacy actors such as NGOs hold neither power over these insider processes nor more power to shape them directly. Interviews suggest their influence is mediated primarily through prior relationship-building with insiders and technical support provided to institutions preparing budget submissions. Some NGO respondents described efforts to engage MDAs during budget preparation at STEP2, though this was more often reported at LGA level where NGOs and CSOs had gained influence through providing capacity-building support. Advocacy actors are particularly familiar with lobbying at STEP4-5, including through engagement with Parliamentary Committees, where individual parliamentarians indicated appetite for accessible, regular evidence to support scrutiny work. However, these committees are downstream of the IMTC and Cabinet processes that set consolidated ceilings, so their recommendations operate within an already-negotiated envelope, limiting how far their influence propagates. Some respondents pointed to existing CSO coordination structures as an established channel for more coordinated advocacy.

Power is more decentralised during implementation and monitoring at STEP6, but leverage is comparatively limited. Interviewees noted that MDAs may reorient funds budgeted for preparedness, including in response to common delayed or incomplete fund releases, signalling some ongoing power to reconfigure budgets at MDA level. Yet because reallocation decisions at this stage do not alter the framework that future cycles inherit, their effects remain largely confined to the current cycle rather than propagating forward. There is also scope for conducting monitoring activities with the goal of influencing spending priorities in subsequent cycles. However, this potential appears currently unrealised, and evidence of preparedness shortfalls at STEP6 has limited reliable pathways to shape subsequent cycles.

#### LAYER6-DETERMINANTS OF BEHAVIOURS

A foundational OPPORTUNITY constraint highlighted in the data is the severely underfunded national budget, which forces difficult choices about what to fund. We find that flood and drought preparedness is rarely considered a top priority throughout the budgeting process. Reflecting well-recognised MOTIVATION dynamics around risk perception, interviews suggest that in the face of fiscal constraints, duty-bearers and the public alike prefer to prioritise issues that appear immediately pressing, over preparedness for risks perceived as uncertain in timing and impact. Respondents described corresponding weak public pressure for pre-emptive action and a widespread cultural norm whereby reactive responses to crises are accepted and habitual.

Even within MDAs with a strong mandate to deliver flood and drought preparedness, respondents described a social acceptability of trading-off preparedness against other priorities for 'valid reasons', leaving preparedness especially vulnerable to being cut - particularly at STEP3, when proposals are reconciled to ceilings, and STEP6, when disbursements regularly fall short of allocations. Respondents described attention to preparedness spiking in the wake of extreme drought and especially flood events. The government's long-

postponed decision to fund some of the country's largest flood prevention infrastructure, Kidunda Dam, was, our data suggests, eventually triggered by a major flooding event. These MOTIVATION deficits were not strongly expressed at the individual level, however: Some coordinating and technical staff with preparedness-related mandates expressed strong personal commitment to advancing preparedness, rooted in the strong team culture fostered by the demanding frontline nature of coordination work, or in first-hand exposure to the human costs of floods and droughts.

Additional CAPABILITY barriers surround how actors understand and operationalise preparedness. According to our data, actors in MDAs often see flood and drought preparedness as a relatively siloed objective, most often associated with large-scale infrastructure (mainly dams) and holding financial reserves, rather than as also integral to wider sectoral activities, such as climate-resilient agriculture or watershed management. Preparedness is typically seen as someone else's responsibility, separate from, and potentially competing with, the actors' own roles or mandates in relation to broader sectoral goals such as economic growth, or water and food security. A distinct CAPABILITY barrier concerns practical know-how of budgeting for preparedness. This particularly impacts STEP2 where data suggest MDA actors are often unsure how to translate preparedness into their budget submissions, leaving generic environmental provisions to stand in for preparedness-specific allocations.

Siloes also occur across actors, where respondents tended to grasp their own part of the system more readily than interconnections with adjacent institutions. One respondent observed that this is compounded by national-level conversations about preparedness using different language, which makes dependencies between institutions and activities harder to recognise (e.g. DRM, climate adaptation and Integrated Water Resource Management). This has direct consequences for coordination. Cross-sectoral preparedness is inherently complex, and at STEP2-3 these silos leave MDAs budgeting from their own vantage point, with few mechanisms to align where their efforts could reinforce or build on those of others. Silos also limit access to resources that could strengthen preparedness budgeting. For example, respondents identified a shortage of risk and vulnerability assessments as a key OPPORTUNITY constraint, yet our data suggest that even where assessments exist, they are not always known to the actors who could use them.

Limits in cross-system awareness may contribute to a misplaced confidence (another CAPABILITY barrier) that gaps are being addressed elsewhere. Such claims were notable among some of the respondents best placed to strengthen preparedness, who, during interviews, overstated how well the system functions, or asserted others were 'taking care of it'. Such assertions may also arise from actors defending their own performance, or that of their institution. Regardless, overly confident statements of system functioning likely reduce urgency and weaken MOTIVATION to act across the budgeting cycle.

Underpinning these dynamics is a cluster of mutually reinforcing OPPORTUNITY constraints that leave whether preparedness is embedded and reinforced in budget decisions largely to individual institutional discretion. Preparedness is generally not inscribed in formal role descriptions or core professional deliverables and the absence of preparedness-specific KPIs within MDA performance frameworks, alongside structural barriers to information flow and cross-institutional accountability, weakens MOTIVATION to act, with failures to deliver going unrecorded and without social consequence. As a result, preparedness often depends on the commitment of motivated individuals rather than institutionalised incentives and accountability mechanisms. Where reporting obligations do exist, interviews suggest they are often vague as to what preparedness requires, allowing generic environmental activity to count as compliance without meeting preparedness-specific needs.

A further OPPORTUNITY constraint, which also weakens MOTIVATION to act, is the absence of supportive procedural mechanisms and infrastructure that would prompt actors to embed preparedness into budget decisions as a matter of routine. The PBGs contain no specific budget codes, compliance requirements, or appraisal criteria to act as a procedural trigger for preparedness planning at STEP2 or budget screening at STEP3-5. Equally, some respondents noted that available vulnerability and risk assessments are rarely drawn upon in budget preparation, and there are no procedural prompts for MDAs to engage with them when spending choices are made. At STEP6, without preparedness-specific KPIs or monitoring, shortfalls are subsumed within generic reporting, obscuring implementation gaps and limiting feedback that could inform corrective action in subsequent cycles.

Political leadership emerged as an important determinant of both MOTIVATION and OPPORTUNITY. High-level political leadership on preparedness can lower resistance and create receptive conditions for preparedness advocacy. Respondents described the addition of Environment as a key pillar in Tanzania's Vision 2050 (URT, 2025) as a legitimising frame that they can invoke when advocating for stronger preparedness provisions. Respondents also described MoF as receptive to an economic framing of environmental issues, pointing to carbon trading revenue as having helped recast environmental protection in fiscal terms and legitimise environmental budget lines within the Ministry. But respondents also noted that an absence of sustained high-level championing creates misaligned incentives throughout the cycle. Given sectoral competition for resources, respondents suggested that, at STEP2, MDAs are likely to prioritise issues they perceive as most closely aligned with the national political agenda over preparedness, believing this will maximise their funding allocation. A similar incentive structure helps explain the inter-ministerial competition and resource protection behaviour documented at STEP3, where actors default to protecting their own sectoral allocations rather than coordinating across mandates.

## 6. Discussion

### LAYER7-RESPONSE TECHNIQUES

The response techniques that we identified to respond to LAYER6-DETERMINANTS OF BEHAVIOURS cluster around reframing how actors understand preparedness, reforming the procedural infrastructure that prompts and screens for it at key points in the cycle, provision of evidence, building capacity to account for and implement preparedness, brokering coordination and strengthening monitoring, accountability and civic pressure.

Reframing, in terms of risk, sectoral self-interest and economic returns, has the potential to address CAPABILITY and MOTIVATION barriers by improving how actors understand preparedness and its relevance to their own mandates, and by raising its perceived value against competing priorities.

Procedural reform can work on OPPORTUNITY determinants to replace reliance on individual discretion with built-in procedural triggers, which create routine prompts, screening criteria, reporting requirements or budget classifications that institutionalise preparedness within decision making.

Evidence provision primarily addresses CAPABILITY and MOTIVATION by, for example, strengthening understanding of preparedness needs and impacts, challenging inaccurate perceptions of system performance, supporting more informed prioritisation and accountability and providing information to guide decision making.

Capacity-building addresses CAPABILITY barriers to close gaps in the knowledge and skills required to translate preparedness objectives into practical planning, budgeting, coordination and implementation activities,

Brokering and facilitation works on OPPORTUNITY by creating relationships, coordination mechanisms and opportunities for collaboration that actors may struggle to establish independently, particularly where preparedness depends upon coordinated action across siloed organisations or sectors.

Finally, strengthening monitoring, accountability and civic pressure addresses OPPORTUNITY and MOTIVATION by increasing the visibility of preparedness performance, strengthening scrutiny and creating incentives for preparedness.

### LAYER8-PATHWAYS-TO-INFLUENCE

Drawing together the preceding analysis, in LAYER8-PATHWAYS-TO-INFLUENCE we identify three candidate pathways through which SwM could strengthen flood and drought preparedness within Tanzania's budgeting process. Co-designed with SwM, these are intended as candidate directions to be tested and refined through its future programming.

### *Advocating for preparedness-specific provisions in the PBGS*

PBG content and any accompanying budget templates issued at STEP1.3 appear to constitute the highest system-leverage point identified in LAYER7. Strengthening preparedness provisions here could shift preparedness from a discretionary consideration to a compliance requirement of MDA budgeting, or, at minimum, a structured prompt within budget preparation. Provision for preparedness in the PBGs could simultaneously signal clear high-level leadership to counteract the norm of preparedness as a legitimate trade-off and partially compensate for the cross-sectoral authority that PMO-DMD and VPO-Environment currently lack (LAYER6). Yet MoF and the PBG committee hold framework-setting power but bear limited responsibility for preparedness outcomes, while PMO-DMD and VPO-Environment, mandated to champion it, appear to have at most limited, indirect influence over PBG-setting (LAYER5). SwM holds neither formal authority nor direct influence over this process, suggesting that any pathway for change must operate indirectly.

Several features of the system nonetheless point to a pathway for influence. Existing PBG provisions in areas such as nutrition demonstrate that specific budget direction is securable through this instrument, suggesting that the absence of preparedness provisions reflects political rather than technical constraints. Building a coalition of NGOs and CSOs to strengthen civic pressure could offer SwM a route to counteract reactive crisis-response norms and weak demand for preparedness identified as motivational barriers (LAYER6). Coordination between PMO-DMD, VPO-Environment and MoF on disaster risk provisions, though appearing limited in its current form and influence, is also a channel SwM could seek to influence. Individual motivation among coordinating and technical staff – driven by team culture and direct exposure to disaster impacts (LAYER6) – suggests these actors may be receptive to external advocacy directed toward PBG-specific asks, building on MoF's demonstrated openness to fiscal arguments (LAYER7).

### *Making the sectoral case for preparedness investment and coordination*

A second pathway for influence arises at STEP2, where MDAs have considerable discretion over whether flood and drought preparedness is embedded within initial budget submissions (LAYER5). The desired behaviours are not only that MDAs include preparedness as a costed budget priority, but also that they coordinate across institutional boundaries to address interdependent preparedness needs and maximise efficiencies (LAYER4). Yet respondents indicated that many MDAs neither recognise preparedness as integral to their own mandates nor appreciate the benefits of cross-sectoral coordination. Even where this relevance is recognised, actors are often unsure how to translate preparedness into costed budget submissions, while tight budget ceilings encourage them to prioritise issues perceived as more immediately urgent or more likely to be funded (LAYER6).

Supported by broader CSO coordination structures, SwM appears well positioned to address several of these barriers through capacity building, evidence provision and coordination. MDAs expressed both interest in and need for capacity building on how to mainstream preparedness into budget preparation, providing a plausible route for this engagement. Such capacity building could simultaneously strengthen budgeting skills, reframe preparedness as advancing sectoral objectives rather than competing with them, and demonstrate the benefits of coordinating investment across ministries. Sector-specific evidence linking flood and drought risks to costs already borne by sectors – including agricultural losses, infrastructure damage, energy insecurity and economic disruption – could reinforce this framing, while clarifying institutional responsibilities and drawing attention to underused resources such as risk and vulnerability assessments.

SwM's cross-sectoral position also creates an opportunity to broker coordination across MDAs that rarely engage systematically during budget preparation. However, its limited convening power (LAYER5) suggests its comparative advantage lies in supporting and encouraging forums led by mandated actors, such as PMO-DMD and PO-RALG, through facilitation, technical analysis and cross-sectoral perspectives that those institutions may lack. Strengthening relationships with these actors is therefore a key pathway to enhancing preparedness during budget preparation.

A third pathway arises at STEP6, where evidence generated through M&E (LAYER7) can make the gap between perceived and actual preparedness performance visible, addressing two reinforcing barriers identified in LAYER6: the invisibility of preparedness shortfalls within generic reporting and system-functioning overconfidence that reduces urgency for preparedness action across the budgeting cycle.

Existing monitoring infrastructure may provide a practical entry point. In principle, new M&E units have been established across ministries, while VPO-Environment now requires public institutions to appoint environmental focal officers and submit quarterly reports. Yet our analysis found no evidence that flood and drought preparedness is currently tracked as a distinct reporting category within either mechanism. Instead, respondents frequently cited generic environmental activities – including meetings, coordination and awareness campaigns – as evidence of preparedness. Monitoring frameworks that do not distinguish preparedness from broader environmental activity risk masking implementation gaps behind apparent compliance.

An opening for SwM is advocacy to VPO-Environment, for example pressing for reporting templates or focal-officer guidance to include preparedness as a discrete line item, though as with STEP1, SwM can only inform and encourage rather than compel. SwM's most direct route for influence lies in independent monitoring. For example, annual budget analysis, produced with TaWaSaNet, already scrutinises water-sector spending and could be expanded to assess preparedness-specific performance which was absent from its 2023 assessment (TaWaSaNet, 2023). However, doing so effectively may also require collaboration with MoF and other relevant actors to improve budget tagging and tracking systems, making preparedness expenditure sufficiently visible for meaningful analysis (Rising et al., 2026). Generating independent evidence alongside continued advocacy therefore offers SwM a practical route towards making preparedness shortfalls sufficiently visible to strengthen accountability and influence subsequent budget cycles.

## **7. Conclusions**

This paper has shown that the implementation gap in flood and drought preparedness in Tanzania's national budgeting process is produced through a complex system of often interdependent behavioural dynamics, through which preparedness is repeatedly displaced. This has cumulative and self-reproducing effects wherein each step of the budgeting process inherits conditions set upstream that can either ease or obstruct behaviours needed to advance preparedness, with failure to embed preparedness at one step making preparedness more likely to be displaced at the next step. Indeed, many of the behavioural determinants that prevent preparedness from being prioritised through the annual cycle – such as the absence of preparedness-specific KPIs – also prevent evidence of that failure from becoming visible and influential enough to generate pressure for change in subsequent cycles.

These interactions and dependencies are part of what makes a complex multi-actor policy challenge like enhancing preparedness in a national budgeting process appear so intractable. Yet MABEJ makes this challenge more tractable through process-embedded, sequential analysis of the behaviours needed to contribute to preparedness at each step of the budgeting process, and through designing behaviour change response techniques that respond to key behavioural determinants at the points in the process where change would be most influential and achievable.

Many of the capability and opportunity barriers identified in the analysis are familiar to classic political economy analysis of adaptation governance. However, by bringing motivation determinants more fully into view, MABEJ has surfaced barriers and associated response techniques that have been more overlooked in existing adaptation literatures. For instance, drawing on COM-B in MABEJ can help reveal whether a barrier to coordination between agencies stems primarily from individual capacity constraints, structural factors such as misaligned mandates, motivational factors such as weak perceived ownership or urgency, or the interplay between them – dimensions that political economy and governance approaches have rarely examined together.

Moreover, MABEJ adds practical value by translating these barriers into determinants of behaviour that can be acted upon by a given actor. Extending the logic of tools such as the Behaviour Change Wheel, different barriers point to the potential value of different kinds of response, offering a route from behavioural diagnosis to targeted, actor-specific pathways for intervention. As such MABEJ moves beyond barrier-cataloguing approaches which dominate much of the adaptation literature and brings the action-oriented strength of behavioural approaches to bear on the adaptation implementation gap in a way that existing political economy analyses have rarely been positioned to provide.

In the case of Tanzania's national budgeting process, MABEJ has revealed that upstream interventions that shape the PBGs, and initial MDA budget submissions offer the greatest leverage to enhance preparedness provision in MDA budgets, while downstream review, scrutiny and monitoring mechanisms offer more limited corrective and accountability levers, that can only make more marginal shifts to annual budget preparedness provisions. Implementation gaps persist in part because power and leverage do not neatly coincide: the actors with the strongest mandate and incentive to advance preparedness are not the actors with the greatest control over the highest-leverage budgeting instruments. Yet MABEJ allowed us to identify concrete strategies through which an NGO such as SwM, positioned outside formal budget decision-making, may be realistically able to shape system outcomes and this allowed us to define three empirically grounded candidate pathways for intervention to be tested and refined through programming.

Analysing these layers from a different positionality – for example in partnership with a government ministry or donor – would surface a different set of LAYER-8-PATHWAYS-TO-INFLUENCE to reflect that actor's own position in the system. This flexibility is by design: a core purpose of MABEJ is to enable identification of actionable pathways tailored to the positionality and power of those applying it. The pathways designed for SwM demonstrate that MABEJ's practical value is not confined to actors positioned at the highest-leverage upstream points in Tanzania's budgeting process. Because preparedness outcomes are produced through behaviours distributed across the budgeting cycle, opportunities for influence exist at multiple points in the system. Indeed, results show that while upstream conditions shape what becomes possible later in the cycle, targeted action at different steps may still be able to shift outcomes, even where those upstream conditions remain unfavourable.

Generalisability of findings from a single country and policy process cannot be assumed. Yet Tanzania is not an exceptional case. The difficulty of translating high-level adaptation commitments into funded action is experienced globally, and Tanzania's annual budgeting cycle, structured around upstream guideline-setting followed by cascading preparation, review, approval and monitoring, resembles public financial management processes found elsewhere (Rising et al., 2026). Many of the determinants identified here are also recognisable from wider adaptation governance literature and recur across the steps of the budgeting process. The broader analytical challenge also extends beyond this case. A wide range of adaptation commitments depend on translation into routine planning, budgeting and administrative systems where authority is diffuse, incentives are misaligned, and priorities are negotiated under resource constraints. As climate risks accelerate, the challenge for adaptation governance is not only to formulate stronger plans, but to ensure that those plans are carried into the institutional routines through which resources are allocated and action is delivered. MABEJ contributes to this task through a transferable diagnostic tool for identifying where change would matter most, why it is not occurring, and which actors are positioned to act.

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