



Kenya Anticipatory Action Roadmap

2024-2029

Pillar Five

Policy
and
Advocacy

Pillar Three

Coordination
and
Governance

Pillar Seven

Monitoring
and
Evaluation

Pillar Six

Financing

Pillar Four

Research,
Innovation,
and Learning

Pillar One

Early Warning
(Data, Triggers,
Thresholds)

Pillar Two

Early Action
(Planning and
Operations)



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Preface

The Kenya Anticipatory Action Roadmap (2024-2029) represents a significant milestone in our collective effort to enhance disaster risk management and resilience in Kenya. This roadmap is a product of extensive collaboration among state and non-state actors dedicated to reducing the adverse impacts of climate-related hazards on vulnerable populations.

Over the past few decades, Kenya has faced an increasing frequency and severity of disasters, particularly those related to climate change, such as droughts and floods. These hazards have profoundly affected the livelihoods and well-being of communities across the country, especially in the Arid and Semi-Arid Lands (ASAL) regions. The urgent need to shift from reactive disaster response to proactive anticipatory action has never been more critical.

This comprehensive roadmap outlines a strategic plan to implement anticipatory actions that mitigate the effects of impending disasters. It is structured around seven guiding pillars: Early Warning, Early Action, Coordination and Governance, Research Innovation and Learning, Policy and Advocacy, Financing, and Monitoring and Evaluation. Each pillar aims to build a robust framework for anticipatory action, ensuring timely and effective responses to forecasted hazards.

The development of this roadmap has been guided by global and regional frameworks, including the Sendai Framework for Disaster Risk Reduction, Africa Agenda 2063, and the IGAD Drought Disaster Resilience and Sustainability Initiative. These frameworks provide a solid foundation for our strategies, aligning our efforts with international best practices.

As we embark on the implementation of this roadmap, we are committed to fostering technical and strategic partnerships, leveraging existing community-based infrastructures, and integrating both indigenous and scientific knowledge. Our goal is to create a resilient nation where anticipatory action is seamlessly integrated into disaster risk management policies, strategies, and systems.

We extend our gratitude to all the members of the National Technical Working Group on Anticipatory Action, and all stakeholders involved in the consultation and review process. Your invaluable contributions have made this roadmap possible. Together, we will enhance Kenya's capacity to anticipate and respond to climate-related hazards, ultimately safeguarding lives and livelihoods across the country.

Office of the President

Ministry of Interior & National Administration

National Disaster Operations Centre - NDOC

Col (Rtd) D K Samoei, MBS

Acknowledgments

The Kenya Anticipatory Action Roadmap (2024-2029) represents a pivotal step in our nation's efforts to proactively manage and mitigate the impacts of climate-related and other hazards. As the frequency and severity of these hazards continue to escalate, the need for a robust framework to anticipate and act upon early warnings has never been more critical.

This roadmap is the result of extensive collaboration and dedication from a diverse array of stakeholders, including governmental bodies, non-governmental organizations, community representatives, and international partners. It reflects our collective commitment to enhancing resilience, safeguarding livelihoods, and protecting the most vulnerable populations in Kenya. Members of the National Technical Working Group on Anticipatory Action (TWGAA) contributed to this roadmap through their participation in consultation workshops and review meetings, and their provision of written feedback to earlier drafts.

Guided by global and regional frameworks, this roadmap aligns with international best practices while addressing the unique challenges faced by our communities. Through its seven strategic pillars—we aim to establish a harmonized, efficient, and resilient anticipatory action system. The implementation of this roadmap will transform our approach to disaster risk management. By shifting our focus from reactive to proactive measures, we will not only reduce the adverse impacts of disasters but also promote sustainable development across the nation. The emphasis on technical and strategic partnerships will ensure comprehensive coverage, reaching even the most remote and high-risk areas.

As we embark on this journey, I extend my gratitude to all contributors for their unwavering support and dedication. Together, we will build a resilient Kenya, capable of anticipating and mitigating the impacts of future hazards, ensuring a safer and more secure future for all.

Dr. Ahmed Idris

Secretary General

Kenya Red Cross Society

List of Abbreviations

AA	Anticipatory Action
AAs	Anticipatory actions
ASALs	Arid and Semi-Arid Lands
CERF	Central Emergency Response Fund
DREF	Disaster Relief Emergency Fund
DRM	Disaster Risk Management
FAO	Food and Agriculture Organization of the United Nations
IBF	Impact-based Forecasting
IFRC	International Federation of Red Cross and Red Crescent Societies
IGAD	Intergovernmental Authority for Development
KRCS	Kenya Red Cross Society
NGO	Non-Governmental Organization
SFDRR	Sendai Framework for Disaster Risk Reduction
SFERA	Strengthening Forecast-based Early Response in Africa
TWG	Technical Working Group
TWGAA	Technical Working Group on Anticipatory Action

Definition of terminologies

Anticipatory Action (AA) – used herein to refer to the short-term Disaster Risk Management approach in which interventions are undertaken to mitigate potential negative effect of a disaster on the vulnerable communities facing risk of the disaster, before the impacts of the disaster fully unfolds. The interventions require a pre-arranged funding.

Anticipatory Actions (AAs) – set of predefined interventions taken based on defined thresholds of a forecasted hazard and a complete risk analysis, in anticipation of potential negative impacts to prevent or mitigate the risk of the impact.

Trigger – criteria for where and when funds will be allocated and assistance will be provided is decided according to specific threshold values based on anticipated hazard. To establish a trigger, experts analyze the relevant natural hazards, assess the impacts of previous disasters, and look at vulnerability data.

Impact-based Forecasting (IbF) – combination of forecasted hazard and an assessment of possible impacts, including when, where and how likely the impacts are

Financing mechanism – a dedicated fund and modality for accessing the fund put in place for fast access, enabling effect action before a disaster strikes

Early Warning System (EWS) – the set of capacities needed to generate and disseminate timely and meaningful warning information to enable actors and communities threatened by a hazard to prepare and to act appropriately and in sufficient time to reduce the possibility of harm or loss.

Executive Summary

Humanitarian actors are applying Anticipatory Action (AA) approach to tackle adverse effects of disasters in Kenya by implementing actions to mitigate potential impacts ahead of anticipated disaster, to avoid humanitarian crises. With increasing manifestation of disaster, mainly attributed to climate change, this intervention is becoming highly desired now than ever. However, for sustainability, the AA initiatives require superb collaborations ensuring disaster impact data held by various stakeholders is properly archived for reference and shared, the hazards are constantly monitored and forecasted reliably, capacities built for AA across actors and policy-makers, a sustainable funding is in place, and clear coordination institution avoiding overlapping of mandates.

The national Technical Working Group (TWG) on AA has developed a comprehensive five-year roadmap (2024-2029) to enhance AA by fostering an enabling environment for AA in Kenya. This interagency roadmap is structured around eight guiding pillars, each pillar envisioning clear outcomes with priority activities geared towards the outcomes. The Early Warning System pillar focuses on developing systems for hazard monitoring and forecasting and the Impact-based Forecasting pillar focuses on developing systems for hazard to impact modeling. Additionally, the Anticipatory actions pillar focuses on scaling up the reach of AAs with an activation, the coordination platform pillar focuses on strengthening position of government institutions in AA approach, and the research and innovation pillar focuses on

promoting scientific interrogation of challenges experienced by AA approach. Further, the policy and advocacy pillar focuses on lobbying for government recognition of risk sensitive approach in disaster management, financing pillar focuses on lobbying for government allocations to anticipatory financing, and the Monitoring, Evaluation and Learning pillar focuses on knowledge management and cross-sharing.

This roadmap does not provide a day-to-day plan of activities but rather, it presents a general direction of the national TWG in attempt to advance AA in Kenya. It borrows from experiences of the development and implementation of AA approaches that has been observed in Kenya since 2018 by partners who have involved members of the national TWG on AA. In this roadmap, the national TWG recognizes that many humanitarian partners may have slightly varied approaches to AA but generally, those approaches can complement each other. For the greater good of the vulnerable Kenya to current and future disasters, bigger impact will be attained when all players work together to scale AA.

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Automatic Weather Station
Turkana County
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SECTION ONE:

Introduction



Devastating effects of the Mai-Mahiu landslide that occurred during the above average rainfall of the March-April-May (MAM) rains in 2024

Background

Globally, natural disasters continue posing systemic risks to communities. These disasters are on increasing trend particularly in climate and weather-related hazards, both in frequency of occurrence and intensity. According to the World Disaster Report 2023, impacts of floods, droughts, epidemics, heatwaves and wildfires are growing more disruptive by over 35% in the current compared to the 1960 through 1990s. The World Disaster Report 2020, further states that 83% of all natural disasters in the last ten years are a result of extreme weather and climate-related phenomena. As per State of the Climate in Africa report 2022, more than 110 million people on the continent were directly affected by weather, climate and water-related hazards in 2022, causing more than US\$ 8.5 billion in economic damages, 5 000 fatalities reported, of which 48% were associated with drought and 43% were associated with flooding.

To these hazards, developing countries like Kenya have high exposure, vulnerability and a low adaptive capacity, thus the effects of climate change are becoming extreme. In Kenya, about 80% of Kenya is classified Arid and Semi-Arid (ASAL), predisposing the area to drought leading to loss of assets and lives. Drought is directly affecting about 3 million people in the country every year and has been declared an emergency in protracted droughts of 2008/2009, 2010/2011, 2016/2017, 2021/2022 (KRCS Drought risk analysis 2023). Flood impacts on the other hand are mostly associated with pluvial flooding mainly owing to fact that they can be anticipated and thus systems such as monitoring and early warning exist. Pluvial flooding exposes about 2M persons in Kenya in 3 major river basins in Kenya, at-least once in 5 years (KRCS flood risk analysis, 2021). The aftermath of the droughts and floods has been associated with other disasters such as landslides, mudslides, epidemics and desert locusts.

The increasing disasters is being matched with humanitarian organizations and development partner efforts to mitigate the crises. With increasingly limited resources to meet the increasing needs, the partners are adopting efficient approaches that integrate science to anticipate disasters and act ahead of crisis¹. However, the actors rely on the financial support from donations that is becoming limited² and the technical capacities necessitating constant improvements³. These necessitates scale up efforts, shown through global to region-specific scale roadmaps for scaling AA approach i.e., the regional roadmaps for IGAD⁴, Southern Africa⁵, Asia-Pacific⁶. The common aim of these roadmaps is to consider regional perspectives in a collective effort to scale up AA.

1. <https://sci-hub.st/https://doi.org/10.1016/B978-0-12-811891-7.00019-0>

2. <https://sci-hub.st/https://doi.org/10.1016/B978-0-12-811891-7.00019-0>

3. GAR Special Report on Drought 2021

4. GAR Special Report on Drought 2021

5. <https://reliefweb.int/report/angola/southern-africa-regional-anticipatory-action-roadmap-august-2022>

6. Asia-Pacific Technical Working Group on Anticipatory Action. 2024. Anticipatory action in Asia and the Pacific: TWGAA regional roadmap 2023–2027. Bangkok

1.1 Kenya's Hazard Profile

Kenya's climate varies greatly, from warm, wet and tropical regions along the coastline to temperate mountains in the center, and arid and semi-arid savannah. Climate change, global warming, environmental hazards and compounding resultant shocks in Kenya are having devastating impacts on the entire facets of life posing threat to the survival, well-being and future of humanity with children, persons with disability, elderly, chronically ill being the most vulnerable. The country is exposed to a diverse range of hazards and other challenges: drought, floods, storms, thunderstorms, lake back-flow, landslides, cyclones, forest fires, conflict, desert locusts' outbreak. Of these, the hydrometeorological hazards i.e. drought and floods pose the greatest risk often resulting in compounded risks of conflict, population displacements, and epidemics.

Large areas of Kenya are prone to drought, which affects approximately 5 million people in the country each year and contributes to crop and animal losses - and subsequently food insecurity, especially among smallholder farmers and pastoralists in ASAL region. Major droughts occur on average once per decade with the last severe drought experienced in 2020 –2023 period, and smaller ones more frequently. Riverine floods are a seasonal occurrence in Kenya, particularly along the river basins such as (Tana River, Lake Victoria, Athi basin, Ewaso Nyiro and Rift valley basin)⁷. Urban areas often experience frequent flooding as a result of intense rainfall and poor drainage. The rising water levels of the Rift Valley lakes and Lake Victoria have been affecting communities due to the back-flow effect⁸. For example, Lake Victoria has been rising since the onset of 2023 because of El Niño-enhanced rainfall during the 'short rain' season of October-December 2023 and the 'long rain' season of 2024⁹. Flooding affects between 50,000 and 150,000 people each year in Kenya, leading to significant loss of life, damage to buildings and public infrastructure, and loss of property.

As a result of existing climate change hazard risk hotspots countrywide, new hotspots are likely to intensify and emerge in future. This necessitates the need for anticipatory action to minimize the impact of these hazard events.

1.2 About this Roadmap

This document presents a 5-year roadmap for anticipatory action in Kenya prepared by the national TWG on AA prepared for the period 2024–2028. It is a product of consultative meetings held in 2023 and further drafting by a core-team of the national TWG. This development was necessitated by the need to provide a way forward to AA approach in Kenya beyond pilot projects to reach impact at scale following successful AA pilots implemented by partners between 2018 and 2023.

7. <https://reliefweb.int/node/4062905>

8. <https://reliefweb.int/node/4065099>

9. <https://redcross.or.ke/floods>

The national TWG was formed in 2019 under the Innovative Approaches to Response Preparedness (IARP)¹⁰ programme that established a national scale Early Warning Early Action system for extreme floods and droughts in Kenya. Through the IARP programme, the national TWG provided technical and advisory support to development of Early Action Protocol (EAP) for extreme riverine floods and droughts, and further supported the implementation of the EAPs in 2022 drought and 2023 flood periods.

The EAP is an operational framework for implementing forecast-based early warning early action with funding within the Red Cross Red Crescent Movement (the Movement). Since then, other agencies are developing their own frameworks for early warning early action under the umbrella term “Anticipatory Action” developed through projects and activating their core funding at implementation. For instance, the UN-agencies refer to their operational frameworks as AA plans. Recognizing that not all disasters are forecastable, the Movement is currently adapting their approach beyond Forecast-based Financing to AA, allowing for monitoring information to also inform their approach. Ultimately, the AA approach links enable Government agencies, Meteorological Services, humanitarian organizations and other actors to carry out cost-effective and timely early actions to reduce the impact of climate-related disasters on the most vulnerable people, livelihoods and development.

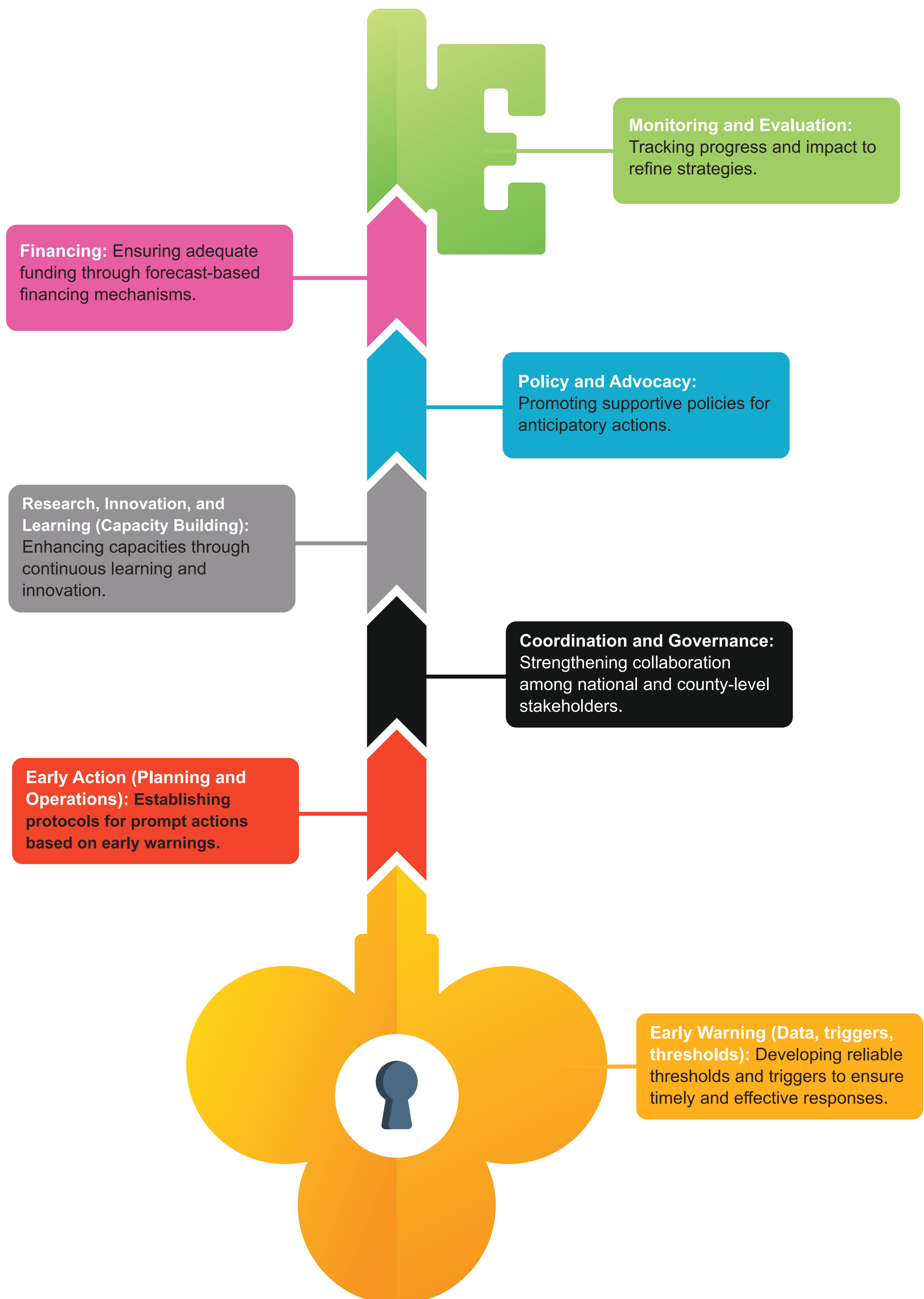
1.3 Relevance and Importance of Anticipatory Action (AA)

Forecasts and warnings of hydrometeorological events require commensurate Anticipatory Actions to significantly reduce the adverse effects on lives and livelihoods. A 2021 United Nations report on investing in disaster risk reduction mentions that every dollar spent on disaster risk reduction prevention can save between \$3 and \$15 in disaster losses. The ideal of disaster risk reduction is often challenged by inadequate financing, slow uptake and utilization of weather and climate information and uncoordinated Anticipatory Actions mainly due to limited understanding and appreciation of the value of the early warning information.

10. IARP was a 5-year programme at Kenya Red Cross funded by the IKEA Foundation through the Netherlands Red Cross. Under, technical support provided by British Red Cross and Netherlands Red Cross, the Climate Centre, and the 510 initiative, KRCS pioneered a nation-wide AA system

1.4 Anticipated Achievements of the AA Roadmap

In 2023, the national TWG convened a lesson sharing workshop from the AA pilots and highlighted these 7 pillars as building blocks of this roadmap:



The TWG will leverage existing community-based infrastructures, integrate indigenous and scientific knowledge, and employ emerging technologies to develop a comprehensive, multi-disciplinary, automated, and research-oriented anticipatory action platform. This roadmap aims to shift the focus from crisis response to proactive risk management, ensuring that vulnerable populations in high-risk areas are better prepared and protected against the adverse effects of climate change and other hazards¹¹. By 2027, the goal is to have a well-coordinated, efficient, and resilient system capable of reducing hazards impacts, thereby safeguarding communities and promoting sustainable development.

1.5 Vision and Mission Statement

1.5.1 Vision

A resilient nation where anticipatory action is seamlessly integrated into national Disaster Risk Management policies, strategies, and systems with a harmonized approach that empowers communities to proactively manage and mitigate potential negative impacts of disasters.

1.5.2 Mission

A harmonized, Multi-agency Anticipatory framework Anticipatory Action approach is established and used to reduce disaster risks by humanitarian actors and the National Government of Kenya.

1.5.3 Purpose for an Anticipatory Action Road map in Kenya

The focus of this National Anticipatory action (AA) road map is to provide a framework for implementation and coordination of AAs at the National and County levels while promoting its integration into DRM in Kenya. It is envisioned that this road map will be adopted and operationalized in the National and County Government development plans, policies, strategies and legislative frameworks.

1.6 Reference Frameworks for Anticipatory Action in Kenya

The Sendai Framework for Disaster Risk Reduction (SFDRR) 2015 - 2030, Africa Agenda 2063 and the IGAD Drought Disaster Resilience and Sustainability Initiative (IDDRISI), among others, offer significant guidance on matters of early warning systems and Anticipatory Actions at the global level.

The World Meteorological Organization (WMO) has developed guidelines to coordinate institutions and enable them to co-design, co-produce, communicate, deliver and utilize weather and climate services for decision-making in climate-sensitive socioeconomic sectors. They include: the Guidelines for Establishing a National Framework for Climate Services; Guidelines on Multi-hazard Impact-based Forecast and Warning Services;

11. <https://www.voanews.com/a/un-report-investing-in-disaster-risk-reduction-saves-lives-money-/6269328.html>

Guidelines on Multi-hazard Impact-based Forecast and Warning Services Part II: Putting Multi-hazard impact based focused warning services (IBFWS) into Practice. These guidelines are designed to assist National Meteorological and Hydrological Services to progress from weather forecasts and warnings to multi-hazard impact-based forecasting and warning services to support Anticipatory Action.

The Government of Kenya continues to play the lead role in development and coordination of policy, legislative and institutional frameworks in disaster risk management and climate change adaptation. Kenya has adopted a multi-agency and multisectoral approach to Disaster Risk Management (DRM) and Climate Change Adaptation (CCA), in appreciation of the need to integrate efforts and build synergies for more positive outcomes. There are cordial working relationships between both governments and non-governmental institutions, in the local, national and international realms. These collaborations can be leveraged upon to support the effective implementation of this strategy.



1.7 National Legal and Policy Context

The National legal framework for Disaster Risk Management in Kenya is anchored on the Constitution of Kenya 2010, clause 24 Part 1 of the Fourth Schedule and Clause 12 Part 2. The National Disaster Management Authority Act (NDMA) of 2016, Public Finance Management Act of 2012 along with the Public Finance Management and National Drought Emergency Fund regulation of 2021(establishment of county government emergency funds) emphasizes the importance of stakeholder consultation and collaboration in implementing anticipatory action (AA) strategies. Additionally, National Disaster Risk Management Policy (2017), the National DRM Bill, 2023 (pending enactment) and the Legal Notice 2238 of April 1, 2016, are vital in shaping this roadmap.



1.8 National Initiatives Linked to Anticipatory Action (AA) Roadmap

Kenya Meteorological Department (KMD) has been a central institution for providing weather and climate information services. This mandate is anchored on Executive Orders on the structure and organization of the Government of Kenya and the World Meteorological Organization Convention. A number of organizations exist, both state and non- state, that support and provide climate information services (CIS), Early Warning (EW) services and platforms through arrangements that National Framework for Climate Services (NFCS) can leverage and collaborate with.

Kenya faces data and information gaps, with limited access to timely and accurate climate data, especially in remote areas. Climate modeling and forecasting capabilities require further development, and institutional capacity for climate information dissemination needs strengthening.



SECTION TWO:

The National Anticipatory Action (AA) Pillars

This section outlines the seven pillars that will guide the implementation of the Anticipatory Actions (AA) approach in Kenya. It delineates the key focus areas for proactive measures, emphasizing seven strategic pillars. The strategic pillars seek to establish a resilient foundation, ensuring that Kenya not only responds effectively to emerging challenges but anticipates and mitigates them in a coordinated and forward-thinking manner.

2.0 The Kenya Anticipatory Action (AA) Roadmap Pillars

The Kenya Anticipatory Action Road map is informed by the priorities of Sendai Framework for Disaster Risk Reduction (2015-2030) the global pillars of the Early Warning for All (EW4ALL) initiative (2022-2027), the Africa Program of Action (2015-2030), the Africa Union Agenda 2063, and the IGAD Regional Roadmap for Anticipatory Action (2023-2027). These seven pillars seek to contribute to the implementation of solutions to challenges impacting the adoption and utilization of anticipatory actions across the country.



Automatic Weather Station
Kenya Meteorological
Department
2024

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2.1 Pillar 1: Early Warning - Data, Triggers and Thresholds.

Pillar 1 of the AA roadmap for Kenya focuses on enhancing data quality and quantity for developing robust impact-based forecasting (IbF) and anticipatory action (AA) protocols. It aims to foster a data-sharing culture, improve joint capacity building among forecasting stakeholders, and harmonize trigger development. By doing so, it seeks to ensure accurate impact prediction, better targeting of at-risk populations, and sustainable, institutionalized triggers across agencies, thereby enhancing coordination and effectiveness in anticipatory actions.

2.1.1. Long-term outcomes for early warning

1. Improved Forecast Reliability and Lead Times.
2. Strengthened Institutional Capacity and Collaboration.

2.1.2 Early warning Objectives

1. To establish a synchronized national framework for developing hazard triggers and thresholds for anticipatory action.
2. To enhance collaboration between forecasters and strengthen capacity for impact-based forecasting and anticipatory action through joint training and research initiatives.

2.1.3 Priority activities for early warning

Key activities include

- Joint Capacity building on IBF and triggers co-development
- Trainings on IbF and AAs
- Developing and operationalizing data-sharing protocols
- Updating risk knowledge on anticipatory actions
- Facilitate the integrating of the indigenous and scientific information
- Technical support for other institutions implementing AA
- Support counties in upscaling and implementing county-specific roadmaps for AA

2

2.2 Pillar 2: Early Action

In Kenya, there is a growing need to shift from reactive disaster response to proactive AA within the DRM cycle. Kenya like many countries has lost many lives to disasters due to acting after disasters strike. For every 1 dollar spent in response to a disaster saves 3 dollars that would have been spent in response. This means that a lot of resources can be saved by acting early. Institutions need to budget more funds towards AA. The current AA plans and EAPs only target a small fraction of the population at risk.

2.2.1 Long-term outcomes for early action

Increase the number of vulnerable people reached with early actions.

2.2.2 Objectives

1. Joint anticipatory action to be developed and endorsed at the national level under the leadership of government with support from stakeholders and partners.
2. Strengthen Coordination and Implementation of Early Action for hazards.
3. Build Stakeholder Capacity and Community Resilience for Anticipatory Action.

2.2.3 Priority activities for Early Actions

1. Build Stakeholder and Community capacity in implementing AA
2. Provide modalities for joint activation of existing AA plans/ EAPs
3. Develop national platform for sharing on AA
4. Advocating for advancement of government-led social protection programmes towards risk-sensitive programmes.



3

2.3 Pillar 3: Coordination and Governance

The coordination of AA in Kenya is currently fragmented, with implementation knowledge limited to sectoral areas. To enhance synergies and implementation, an integrated coordination mechanism is necessary. Pursuant to the Constitution of Kenya 2010, Disaster Risk Management (DRM) is a shared function between the National and County governments. Both levels of governments should work collaboratively in DRM and Climate Change Adaptation (CCA), aligning AA with national priorities and leveraging local expertise. While existing policy frameworks support AA, delays in enacting the National Disaster Risk Management Bill 2023 hinder investment and resource allocation. Effective coordination among DRR/M, CCA, mobility stakeholders and host community is essential to allocate resources efficiently and ensure complementary actions. Establishing National and County AA TWGs will foster consensus, collaboration, and effective AA implementation.

Local communities play a crucial role as first responders, and their participation in decision-making ensures contextually relevant and culturally appropriate AA. While Community Managed Disaster Risk Reduction Committees have been formed to enhance community engagement, not all counties have such committees. Coordinated frameworks are vital for developing and enhancing early warning systems by ensuring timely data collection, analysis, and dissemination. This coordination involves meteorological agencies, DRM agencies, and other institutions.

2.3.1 Long-term outcomes for coordination and governance

AA policy and programming in Kenya are informed by robust evidence on processes and impacts. In the long run, this will contribute to building resilience, strengthening partnerships to better improve early warning systems, while promoting inclusive decision-making.



2.3.2 Objectives of the Coordination and governance

1. Facilitate collaboration, coordination, and synergy among stakeholders to enhance preparedness, optimize response efforts, and build resilience to disasters and crises.
2. Institutionalize policies, strategies, and frameworks that support anticipatory action and disaster risk reduction.

2.3.3 Priority Activities for coordination and governance

1. Enactment of DRM legislation. This will include awareness creation to the legislators, and advocacy towards fast tracking of the National Disaster Risk Management Bill 2023 legislative process. Leverage on existing AA National TWGs to lobby for enactment of the National DRM Bill, 2023
2. Establishment of the national and county Anticipatory Action TWGs.
3. Sensitize national and county TWGs on existing AA initiatives and projected joint areas of exploration
4. Implementation of EAP for floods and drought.
5. Joint capacity building on AA.
6. 6.Anchor existing national and county TWG on AA in policy and legal frameworks.

4

2.4 Pillar 4: Research, Innovation and Learning

This pillar focuses on strengthening the evidence base for investing in and supporting anticipatory action (AA) in Kenya through research, innovation, and learning. By leveraging national expertise and platforms such as the Kenya Meteorological Department, regional networks like the IGAD Drought Resilience Research Collaboration Network and learning institutions, Kenya can develop and implement innovative approaches to risk management. These efforts will ensure that AA strategies are informed by the latest research, technological advancements, and shared knowledge, ultimately enhancing the country's disaster preparedness and resilience.

2.4.1 Long-Term Outcomes for research, innovation and learning

Strengthened national capacity in anticipatory action (AA) with improved research collaborations, early warning services, and evidence base for AA.

2.4.2 Objectives of Research, innovation and learning

1. Establish a Strong Evidence Base for Anticipatory Action
2. Advance Predictive Capabilities and Early Warning Systems

2.4.3 Priority activities for research, innovation and learning

1. Strengthen Partnerships for research in AA: The AA practice has been under pilots and thus approaches are still under development requiring innovations and new tools.
2. Conduct Cost-Benefit and Cost-Effectiveness Analysis: This involves undertaking comprehensive cost-benefit analyses of AA interventions in Kenya, emphasizing both financial and non-financial benefits. This includes assessing the economic impacts as well as the social and environmental benefits derived from AA measures.
3. Address emerging disasters through research and innovations: There are emerging disaster manifestations that cause humanitarian crises, from rare disasters to multiple disasters interacting. Attention should be given to these emerging disasters to understand their manifestation and the window of opportunity to act in anticipation. By linking AA approaches with these dynamic issues, we seek to enhance resilience and response capabilities across sectors.
4. Cutting-Edge Research to Improve Forecasts: In pursuit of enhancing disaster preparedness in Kenya, advanced technologies and high-performance computing will be leveraged to improve forecast accuracy and lead times.
5. Link Innovative Research to International Centers: The activity seeks to coordinate AA research initiatives through a regional peer-to-peer learning hub, facilitating knowledge exchange. It will engage international centers of excellence to leverage global expertise in disaster management and anticipatory action.



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2.5 Pillar 5: Policy and Advocacy

Kenya's current disaster response approach tends to be more reactive and faces challenges due to gaps in legal, institutional, and financial frameworks essential for efficient disaster risk management. The National Disaster Management Bill, 2023 provides a legal framework for the coordination and management of disaster risk management initiatives. Delays in the enactment of the Bill into Law deny stakeholders in the AA space an opportunity to lobby for amendments in the National DRM Law to include AA. In addition, the Meteorological Bill, 2023, currently undergoing procedural legislative motions, seeks to enhance the quality and delivery of meteorological services across the country through the proposed establishment of the Kenya Meteorological Service Authority. Policy and advocacy involve the strategic development and promotion of frameworks, approaches, guidelines and regulations that enable proactive measures to address and mitigate the impacts of climate-related hazards before they occur. Policy and advocacy are crucial for influencing stakeholders and development partners to prioritize and invest in anticipatory action approaches to shift the focus from reactive disaster response to proactive resilience-building strategies that will ultimately enhance the effectiveness of climate risk management.

2.5.1 Long-term outcomes for policy and advocacy

It is envisioned that adopting policy and advocacy efforts as a nation will have desirable outcomes regarding Anticipatory Action and climate change. The outcome will seek to strengthen institutional capacity and awareness for better implementation and management of climate adaptation initiatives due to policies supporting anticipatory action. Thus, there is need for lobbying and advocating for Integration of anticipatory action into county and national disaster risk management frameworks for sustained investment in climate adaptation initiatives.

2.5.2. Objectives for policy and advocacy

1. Strengthen legal, policy frameworks and mechanisms for Anticipatory Action.
2. Advocate for investments in Anticipatory Action to protect lives and livelihoods in the face of predicted hazards.

Priority activities

1. Lobby for enactment and assenting of the National DRM Bill 2023 into Law and champion for its adoption at the County level.
2. Hold Cross-learning policy dialogues to inform and influence policy on inclusion of AA across the different sectors.
3. Foster partnerships between the public and private sectors to leverage resources, expertise, and innovation for strengthening legal and policy frameworks and implementing anticipatory action measures effectively
4. Lobby for inclusion of anticipatory action into existing national and county policy frameworks and enhance the capacity of policymakers, government officials, and relevant stakeholders to participate in policy processes and enact legal and policy frameworks effectively.
5. Sensitization of stakeholders in Climate Change on the importance of anticipatory action through different avenues such as national awareness campaigns, trainings and workshops.
6. Continuous development of advocacy materials (e.g. reports, policy briefs, case studies etc) to build knowledge and awareness on anticipatory action.
7. Support AA focused priority setting at the County and National level through development planning processes such as CIDPs, County Annual Development Plans and National Budget Processes.

6

2.6 Pillar 6: Financing of Anticipatory Action (AA)

The AA initiatives in Kenya have mainly been dependent on funding instruments that are only accessible to humanitarian actors' funders. For example, the Central Emergency Response Fund available to the UN agencies, Forecast-based Action by the Disaster Response Emergency Fund available to Red Cross-National Societies, and the Special Fund for Emergency and Rehabilitation Activities for FAO and the START READY Fund for START Network members. Anticipatory finance is least factored on financial allocations in Disaster Risk Management undertakings in Kenya. With these, AA is mainly dependent on allocations by donors. For sustainability of AA in a country, the funding has to be mainly led by country-specific funding instruments, which is not guaranteed by the current partner-specific funding instruments, which rely majorly on donor contributions.

2.6.1 Long-term outcomes for financing

A sustainable funding mechanism for anticipatory action (AA) will be developed

2.6.2 Objectives of financing

1. To strengthen capacities of DRM financing champions on AA
2. To have the Anticipatory Financing mainstreamed into Disaster Risk Management mechanisms.

2.6.3 Priority activities

1. Conduct joint TWG initiative forums on knowledge sharing, strengthen partnerships and collaborations to pool AA resources.
2. Lobbying for Anticipatory financing inclusion, in different sectors such as DRM frameworks.



7

2.7 Pillar 7: Monitoring and Evaluation

Growing evidence suggests that acting ahead of a shock has significant impact on people's wellbeing and supports the premise of anticipatory action Road map being fast, dignified and cost-effective action that can also protect development gain. Collective, anticipatory approaches are still an innovative space that need guidance by iterative improvements. Thus, this AA Road map intends to invest in documenting evidence and learning from each framework underpinned by a clear learning, monitoring and evaluation plan. The lack of strong evidence, evaluations on the impacts of anticipatory actions and the limited understanding of its processes and added value in risk management have posed a huge challenge to fund and implement anticipatory action.

2.7.1 Long-term outcomes for monitoring and evaluation

An effective knowledge management system is established to support cross learning of anticipatory action (AA) initiatives, impacts, success and lessons learned, and best-practices.

2.7.2 Objectives

1. Foster a culture of evidence-based practices in anticipatory action
2. Facilitate knowledge sharing and learning to support continuous improvement and innovation in AA practices

2.7.3 Priority activities for monitoring and evaluation

1. **Develop a robust M&E Framework:** This framework will provide a structured and reliable system for evaluating AA efforts, providing valuable data for continuous improvement and evidence-based decision-making. It will include clear indicators, methodologies, and tools for assessing the effectiveness and impact of AA initiatives, benefits, gaps, challenges, and successes of AA.
2. **Establish a National AA cross-learning forum:** A national platform for stakeholders involved in AA will facilitate dialogue, collaboration, and knowledge exchange promoting continuous learning and adaptation in AA strategies

2.8 Implementation of Anticipatory Action (AA) by Milestones and Timelines

Pillar	Milestone	Year
Early Warning (Data, Triggers, Thresholds)	Developed synchronized National Framework for developing hazards triggers & thresholds	2024 - 2029
Early Action (Planning and Operations)	Developed National catalog for Anticipatory Action	2024 - 2029
Coordination and Governance	Establishment of structured National Coordination mechanism for AA	2024 - 2029
Research, Innovation, and Learning (Capacity Building)	Published evidence based National Anticipatory Action status	2024 - 2029
Policy and Advocacy	Adopted policy framework on national AA mainstreaming	2024 - 2029
Financing	Established partnerships for AA resource pooling	2024 - 2029
Monitoring and Evaluation	Developed a comprehensive M&E Framework	2024 - 2029

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List of Contributors

- National Disaster Operations Centre (NDOC)
- National Disaster Management Unit (NDMU)
- National Drought Management Authority (NDMA)
- Kenya Meteorological Department (KMD)
- Water Resources Authority (WRA)
- Ministry of Interior & Coordination of National Government
- Ministry of Health (MoH)
- World Food Programme (WFP)
- Food and Agriculture Organization (FAO)
- Department of Resource Surveys and Remote Sensing (DRSRS)
- Regional Centre for Mapping of Resources for Development (RCMRD)
- St. Johns Ambulance
- State Department of Livestock, Crop Development in the Ministry of Agriculture, Livestock, Fisheries and Cooperatives
- National Social Protection Secretariat (NSPS)
- Welthungerhilfe
- Kenya Red Cross Society (KRCS)
- International Center for Humanitarian Affairs-ICHA
- International Federation of Red Cross and Red Crescent Societies (IFRC)
- Intergovernmental Authority on Development Climate Prediction and Applications Centre (ICPAC)
- County Governments
- Save the Children
- CARE International
- Famine Early Warning Systems Network (FewsNet)
- Kenya National Bureau of Statistics (KNBS)
- Global Network of Civil Society-GNDR
- International Rescue Committee (IRC)
- United Nations Development Programme (UNDP)
- Ministry of Water
- American Red Cross (ARC)
- British Red Cross (BRC)
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