

# LOCAL CLIMATE ACTION PLANS

## Mjini Kiuyu, Mkokotoni, and Nungwi



Project Report of “Governance of Climate Change Adaptation in Zanzibar”  
Executive Summary



The Hague Institute  
for Global Justice





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Local Climate Action Plans: Mjini Kiuyu, Mkokotoni, and Nungwi.

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# EXECUTIVE SUMMARY

## Project objectives

This report contains the local climate action plans (LCAP) for three local areas in Zanzibar, namely Mkokotoni, Nungwi, and Mjini Kiuyu, as part of the project “Governance of Climate Adaptation in Small Island Developing States (SIDS): Pilot Zanzibar.” The overall aim of this project is to contribute to sustainable economic development, climate change adaptation, and disaster risk reduction (DRR) through developing effective governance arrangements in a participatory process. By doing so, the project supports the implementation of the Zanzibar Climate Change Strategy.

According to the Zanzibar Climate Change Action Plan, the country’s climate has been changing in the form of temperature increases, higher rainfall intensity, increases in sea surface temperature, and rising sea levels. Projections also show that these changes are likely to continue in the future. Feedback and anecdotal reports have been obtained through desk research, interviews with national-level stakeholders, and interviews and focus group discussions with local stakeholders, which revealed potential climate change related phenomena and have uncovered Zanzibar’s vulnerability to climate change in several sectors that are heavily dependent on natural resources. These natural resources, including forest, water, and marine resources, are already under immense pressure due to population growth, tourism, and unsustainable practices. Climate change will further increase the pressure on the available resources, threatening the sustainability of several of Zanzibar’s key economic sectors such as agriculture, tourism, and fisheries.

## Participatory planning

The project demonstrated the added value of

applying participative planning for the integration of different interests and local realities of climate change impacts into one output, i.e. local climate action plan. The project showed that the participative planning methods deployed, which include group model building and highly interactive forms of learning, are possible despite the general lack of a culture of public participation in Zanzibar, as long as they are properly embedded, initiated, and facilitated. Participants in the process identified the following advantages compared to a “business-as-usual” approach in Zanzibar:

- More knowledge generation and sharing;
- More mutual trust;
- Development of consensus-based solutions;
- Identification of relevant good practices;
- Greater learning ability of the persons and organizations involved in climate change issues.

## Method

1. The participatory planning process began with an inception visit by the project team, which has resulted in the selection of three **hotspots** (Mkokotoni, Nungwi, and Mjini Kiuyu). This enables the project to connect closely with communities and give them true ownership of the project. (January 2015)
2. A **baseline assessment** was conducted through desk research, local surveys, field observations, interviews, and focus group discussions, which provided information on the climate change impacts in Zanzibar as well as local perceptions of climate change related problems and solutions. (March to June 2015)
3. Based on outputs of the baseline

assessment, a multi-stakeholder **workshop** was organized at each of the hotspots. Each workshop was attended by around 50 representatives of the local community, including farmers, fishers, business representatives, NGO representatives, local leaders and government representatives. The key objectives of these workshops were to develop a **joint problem definition** on climate change impacts and identify possible physical and governance **solutions**, based on the priorities of the local stakeholders. (May to June 2015)

4. As a parallel process, a **comparative assessment** of climate change adaptation and DRR in Fiji and Barbados was conducted. The purpose of the comparative assessment is to distill best practices in these two front-runner SIDS in order to draw lessons that can be applied to Zanzibar. (March to September 2015)
5. Both the outputs from the local multi-stakeholder workshops and the comparative assessment fed into the first **national multi-stakeholder workshop**, involving 80 participants from the hotspots, various governmental departments, NGOs, private sector, and international organizations. This workshop aimed to provide all stakeholders with a bottom-up perspective on problems, solutions, and priorities based on the abovementioned outputs. During this workshop a vision, mission, and objectives were set. (September 2015)
6. On the basis of these and the joint problem and solution identification, concrete physical and governance **interventions** were identified and scored using a multi-criteria analysis. (October 2015 to July 2016)
7. The second national multi-stakeholder workshop enabled the **consolidation** of

the Local Climate Action Plans for each hotspot, and identified follow-up steps and a **roadmap toward implementation**. (October 2016)

## Results

The baseline assessment demonstrates that many stakeholders perceive climate change to be affecting their and other people's livelihoods or respective sectoral development. The impacts of climate change have been reported in several sectors, including seaweed farming, fisheries, agriculture, livestock, and tourism. Climate change related problems mentioned by stakeholders include:

- Changing weather patterns, including more unpredictable rainfall;
- Diminishing water quality and quantity;
- Sea-level rise, coastal erosion, seawater inundation / flooding;
- Higher temperatures;
- Health problems, including chronic illnesses and infectious diseases.

However, some other phenomena were mentioned that, although related to climate change, cannot be directly ascribed to it. This was particularly noticeable during interviews with local stakeholders, who tended to attribute a wider range of phenomena to climate change. Examples of these phenomena include:

- Periodic (forced) relocation as well as permanent relocation (to urban areas);
- Unemployment and indirectly increasing drug abuse and (organized) crimes, and gender inequality;
- Lack of social cohesion and community integrity.

Of further importance is the conflict potential that climate change has been already shown to induce on the islands. As water resources and

suitable land become scarcer, conflict over them has been on the rise. Most of this has occurred between and within villages, and has rarely escalated to a violent nature.

Both national-level stakeholders and local stakeholders commented on a lack of awareness and education on the issues of climate change and therefore a lack of willingness to take adaptation measures, both on the part of the government as well as among local communities. Nonetheless, some (local) stakeholders were aware of the detrimental impacts of their practices, such as illegal deforestation of mangroves, but felt that in the absence of alternatives these practices are key to their daily survival.

There are concerns among the stakeholders about whether or not there is sufficient and “real” political willingness to adopt long-term adaptation measures. In the experience of many of the national-level stakeholders, a holistic approach has not yet been taken. Adaptation to climate change has not been mainstreamed in sectoral planning in practice, although there are mainstreaming efforts currently underway. On paper, the coordination of adaptation is supported with clear mandates and leads. However, many of the interviewed stakeholders criticized past and ongoing adaptation efforts as being uncoordinated, with fragmented resources as a result and sometimes contradicting policies, priorities, and actions.

The project builds on past and present projects and programs in Zanzibar, both by domestic actors and by international organizations. During the participatory planning process these actors actively streamlined the products of this project into their own work and vice versa. After December 2016, the Department of Environment of Zanzibar will be the main implementer of the Zanzibar Climate Change Strategy and the

corresponding LCAPs developed during the participatory planning process.

During the first national multi-stakeholder dialogue on local climate action planning, the following shared vision, mission and objectives have been discussed and agreed on for the hotspots:

- **Shared vision:** A climate-resilient Mkokotoni, Nungwi, and Mjini Kiuyu by 2030, which is effectively anticipating, and responding to, the impacts of climate change.
- **Mission:** To reduce the risk and damage from current and future impacts of climate change in a cost-effective manner and to exploit the potential benefits stemming from climate change.
- **Overarching objective:** Reducing the vulnerability of Mkokotoni, Nungwi, and Mjini Kiuyu to the impacts of climate change.
  - **Objective 1:** To introduce new and improve current mechanisms of DRR, especially important for sectors of economic significance that are particularly vulnerable to climate change impacts;
  - **Objective 2:** To enhance the adaptive capacity of natural systems (in particular vulnerable ecosystems) and society (in particular vulnerable communities, such as poor farmers, marginal groups and women), to address the climatic impacts and related risks for their lives and livelihoods;
  - **Objective 3:** To build the capacity of the local partners, actors and stakeholders to integrate climate change issues and adaptation into the local and national development processes, and empower them to address climate change issues.

## Conclusions and recommendations

Important steps toward the achievement of the vision, mission, and objectives are a set of interventions (that could be implemented as local and/or national projects) for climate change adaptation, DRR, and sustainable development, which resulted from the participatory planning process. These interventions have also been subject to a consensus-based ranking. The LCAPs include several cross-cutting strategy components targeted at increasing the adaptive capacity of the governance system:

- Polycentric, broad, and horizontal stakeholder participation;
- Improving information management and exchange;
- Capacity building, training and awareness raising;
- Financial and economic measures (such as diversification of resources, cost recovery, and public private partnerships) and improving risk management;
- Improving cooperation structures.

In total, 23 interventions were appraised by stakeholders and experts, during the first national multi-stakeholder dialogue and outside the context of the dialogue, using a multi-criteria analysis (MCA). The MCA covers the impact and the feasibility of the selected priority measures. Both positive and negative impacts were considered, in particular with respect to a measure's potential to deliver adaptation. The following types of impact were assessed:

1. Economy, e.g., how a measure affects water availability for agriculture or industry;
2. Socio-economic factors, e.g., community amenities, sustainable tourism opportunities, village disruption, religious considerations, and historic/archaeological considerations;

3. Public health, e.g., access to drinking water and sanitation, vector-borne diseases and other health impacts, safety against flooding;
4. Environment, e.g., habitat disturbance (aquatic, riparian, upland); water quality and quantity impacts.

The feasibility of the measure was appraised by dimensions of:

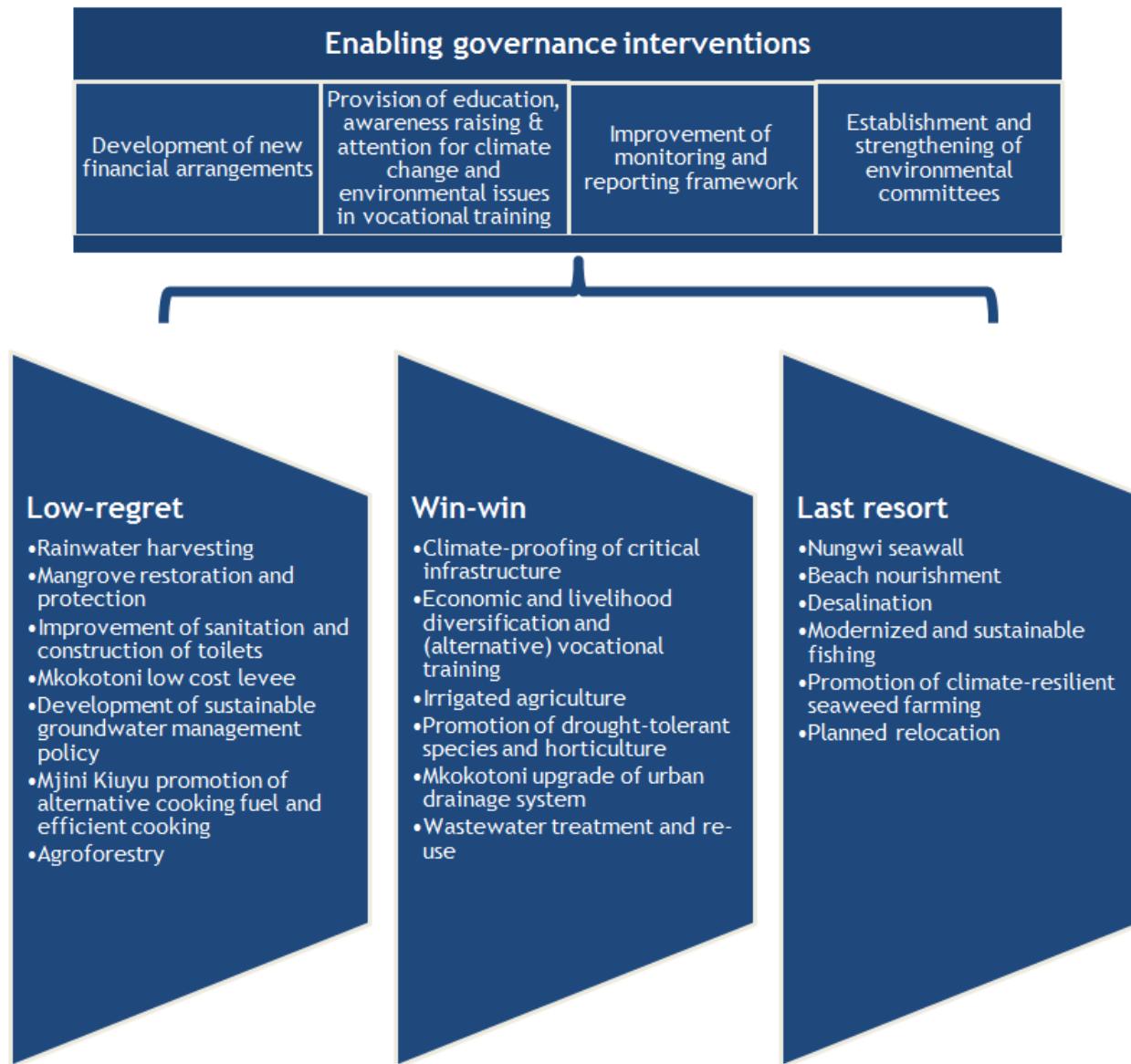
1. Technical considerations, e.g., ease of implementation, redundancy and robustness of the solution, flexibility to changing conditions, and durability;
2. Compatibility to other plans, e.g., whether it helps achieve or impact national goals;
3. Expected investment costs;
4. Political considerations, e.g., whether the solutions enjoy political support or opposition.

The figure on Page 9 provides an overview of the interventions, categorized into “enabling” (governance interventions), “low regret”, “win-win” and “last resort” interventions. This overview is a synthesized result of the priority listing and multi-criteria analysis. Each intervention is described in the report, with details on its objectives, rationale, results and impacts, feasibility, responsibilities and estimated investments costs. Out of the 23 interventions, 19 are applicable to all three hotspots. It is worth noting that some interventions are not immediately considered as adaptation interventions, but nonetheless contribute to adaptation by increasing the general resilience of communities (e.g., WASH measures) and supporting the implementation of (other) adaptation measures (e.g., cooking stove measures).

It should be noted that each intervention should be preceded by a feasibility study. The cost of each feasibility study is between €30,000 and €50,000.

This project provides the Government of Zanzibar with concrete building blocks that support the implementation of the Zanzibar Climate Change Strategy. The bottom-up

identification of problems and solutions through the participatory planning process helps to promote people-centered sustainable economic development which anticipates climate change and its impacts.



## MUHUTASARI

### Makusudio ya Mradi

Ripoti hii imejumuisha mipango kazi ya hali ya hewa ya vijiji vitatu vya Zanzibar ambavyo ni; Mkokotoni, Nungwi na Mjini Kiuyu, ikiwa ni sehemu ya mradi wa usimamizi wa kuhimili mabadiliko ya hali ya hewa katika nchi ndogo za visiwa zinazoendelea. Madhumuni makubwa ya ya mardi huu ni kuchangia maendeleo endelevu ya kiuchumi, kuhimili mabadiliko ya hali ya hewa na kupunguza hali hatarishi ya maafa kwa kutengeneza mpangilio bora wa usimamizi kupitia mchakato shirikishi. Kwa kufanya hivyo, mradi huu unaunga mkono utekelezaji wa **Mkakati wa Mabadiliko ya Hali ya Hewa wa Zanzibar**. Ingawa hakuna taarifa za moja kwa moja zenye kukidhi kikamilifu kutoa hitimisho kwamba mabadiliko ya hali ya hewa yanatokea hususan kwa Zanzibar, hali ya joto kupindukia na matukio ya mvua yamekusanywa kwa miaka kadha ya karibuni ambayo yanauhusiano na mabadiliko ya hali ya hewa. Utafiti uliofanywa kupitia nyaraka, mahojiano na wadau wa ngazi ya kitaifa, na mahojiano kwa wadau wa sehemu husika yameonesha mambo muhimu yanayohusiana na mabadiliko ya hali ya hewa na kukosekana kukabiliana kwa mazingira magumu yanayotokana na mabadiliko ya hali ya hewa katika sekta ambazo zinategemea zaidi rasilimali za asili. Rasilimali hizi za kiasili (kama misitu ya asili ya Zanzibar, rasilimali za maji na rasilimali za bahari) zimekuwa katika hali mbaya ya kutumika kupindukia kutohana na ongezeko la watu, utalii na matumizi holela yasiyoendelevu. Mabadiliko ya hali ya hewa yatazidi kuongeza kasi ya matumizi ya rasilimali zilizopo, na kudhoofisha mwenendo wa baadhi ya sekta muhimu za kiuchumi za Zanzibar, kama vile kilimo, utalii na uvuvi.

### Upangaji shirikishi (mpango shirikishi)

Mradi umetumia njia ya kujenga ubora zaidi katika ushirikishwaji wa upangaji mipango kwa

ajili ya kupata mawazo mbali mbali na uhalisia wa athari za mabadiliko ya hali ya hewa ili kupata matokeo mamoja yenye kulingana. Mradi umeonesha kuwa kwa njia ya ushirikishwaji wa upangaji mipango uliofanyika, ikiwa ni pamoja na uundaji wa mfumo kupitia njia ya vikundi na kujifunza kwa njia ya maingiliano, kwa Zanzibar inawezekana japo kuwa kiujuropa kuna ukosefu wa kuwepo tabia ya kukosa ushirikishwaji wa umma, njia hii inawezekana ilimradi umma wakiwa wamejumuishwa na kushajihishwa vizuri na kuwezeshwa.

Washiriki walibaini faida zifuatazo kupitia mchakato huo ukilinganisha na njia zilizo zoleka:

- Unapelekea kuenea na kuongezeka kwa taaluma
- Kuheshimiana na kuaminiana zaidi
- Ni njia inayopelekea kufikia kwa maamuzi katika kutoa masuluhisho
- Kubaini njia muafaka zenye mafanikio
- Uwezo mkubwa wa kujifunza kwa watu na taasisi zinazojishirikisha na mambo ya mabadiliko ya hali ya hewa

### Njia iliyotumika

1. Hatua za mpango huu shirikishi ulianza na ziara iliyofanywa na timu ya mradi, ambayo ilipelekea kupatikana kwa **maeneo matatu husika** (Mkokotoni, Nungwi na Mjini Kiuyu). Hali hii ilipelekea mradi kuwa karibu na jamii na kuwafanya wao wawe ndio wamiliki wa mradi. (Januari 2015)
2. **Tathmini ya awali** ilifanyika kupitia utafiti uliofanyika ofisini (utafiti wa mezani), tafiti za mitaa, uchunguzi katika eneo husika (eneo lengwa), njia ya majadiliano na kwa majadiliano maalum ya vikundi, ambapo zilipatikana taarifa za hali halisi ya madhara ya mabadiliko ya hali ya hewa

- kwa Zanzibar pamoja na kupata mitazamo ya matatizo na masuluhisho ambayo yanayolingana na mabadiliko ya hali ya hewa kutoka kwa wenyeji husika (walengwa). (Machi 2015)
3. Kupitia matokeo ya utafiti wa awali, **warsha** ya pamoja ya wadau mbalimbali ilifanyika katika kila eneo husika lililochaguliwa na mradi. Kila warsha ilihudhuriwa na washiriki wapatao 50 ambaao ni wanajamii wa mtaa husika (wenyeji), ambaao ni wakulima, wavuvi, wawakilishi wa wafanya bishara, wawakilishi wa taasisi zisizo za kiserikali, viongozi wa mitaa/shehia na wawakilishi kutoka serikalini. Malengo makuu ya warsha hizi ilikuwa ni kutengeneza “ufafanunzi wa tatizo la pamoja” katika madhara ya mabadiliko ya hali ya hewa na kuibua **masuluhisho** yanayoweza kufanyika kivitendo ambayo yakaonekana na yale ya kiutawala, kupitia vipaombele vya wenyeji. (Mai hadi Juni 2015)
  4. Ikiwa ni mchakato sambamba na huo, **tathmini ya kulinganisha** kukabiliana na hali ya mabadiliko ya hali ya hewa na kupunguza hatari ya maafa kwa nchi za Fiji na Barbados imefanyika. Madhumuni ya kufanya mlinganisho wa tathmini hiyo ni kuchuja na kupata njia bora zinazofanyika katika nchi hizi za visiwa zilizopiga hatua ili ziweze kutumika kama kigezo (mafunko) ambacho kingengeweza kutumika Zanzibar. (Machi hadi Septemba 2015)
  5. Matokeo yote ya mikutano ya wenyeji wa maeneo husika (lengwa) na **tathmini ya mlinganisho** yaliboresha katika **warsha** ya **kwanza** wa **kitaifa** wa **wadau**, iliyojumuisha washiriki 80 kutoka katika maeneo husika (lengwa), Idara mbalimbali za serikali, taasisi zisizo za serikali, sekta binafsi, na mashirika ya kimataifa. Warsha hii ilikua na madhumuni ya kuwapa wadau wote matokeo yaliyotajwa hapo juu ya namna ya njia ya kuibua matatatizo, suluhisho na vipambole kuanzia ngazi ya shina (chini). Katika warsha hii uono (Maono), wito (ujumbe) na malengo viliwekwa. (Septemba 2015)
  6. Kutokana na misingi hiyo na kwa kujuatatizo la pamoja na suluhisho, ulifanyika uchaguzi wa utambuzi wa mambo thabiti ya kutekelezeka na **hatua za utekelezaji** kiutawala kwa kutumia uchambuzi wa vigezo mbalimbali.
  7. Washa ya pili ya kitaifa ya wadau mbali mbali, ambayo ilifanyika tarehe 12 Oktoba 2016, ambayo imewezesha kuimarisha mpango huu wa kukabiliana na hali ya hewa vijijini ‘LCAP’ na ambaao ulikuwa na lengo la kupata kujuua njia za ufuatiliaji wa hatua zilizofikiwa na **mwongozo njia wa kuelekea utekelezaji**. (Oktoba 2016)

### **Matokeo**

Tathmini ya awali inaonesha kuwa wadau wengi wamegundua kuwa mabadiliko ya hali ya hewa imewaathiri binafsi na kuathiriri maisha ya watu wengine. Hata hivyo siku zote haikuwa wazi iwapo hali hiyo inamesabihwa a na mabadiliko ya hali ya hewa au ni kutokana na uharibifu unaofanywa na mwanadamu. Hali hii kwa hakika iligundulika katika kipindi cha majadiliano na wenyeji, ambaao walidhamiria kuonesha kwa upana zaidi hali ya mabadiliko ya hali ya hewa. Athari za mabadiliko ya hali ya hewa imeonekana katika sekta kadhaa, ikiwa ni pamoja na ukulima wa mwani, uvuvi, kilimo, mifugo, na utalii. Matatizo yanayohusiana na mabadiliko ya hali ya hewa ambayo yametajwa na wadau ni pamoja na:

- Kubadilika kwa mwenendo wa hali ya hewa, ikiwa ni pamoja na mvua zisizotabirikaKupungua kwa ubora na kiwango cha maji
- Kupanda kwa kina cha bahari, mmong'onyoko wa fukwe, mafuriko ya maji bahari
- Kiwango kikubwa cha joto

- Matatizo ya kiafya, ikiwa ni pamoja na magonjwa sugu, na magonjwa ya kuambukiza
- Kulazimika kuhamza hama kwa vipindi kwa wanakijiji pamoja na kuhamza kabisa moja kwa moja (kuhamia mijini)
- Ukoefu wa ajira na uwezekano wa kuongezeka kwa uvutaji wa madawa ya kulevyo na (kuwepo kwa majaribio) ya uhalifu, kutokuwa na usawa wa kijinsia
- Kukosekana kwa mshikamano wa kijamii na uadilifu wa jamii

Pia imegundulika jambo muhimu la kuibuka kwa mgogoro kutokana na mabadiliko ya hali ya hewa ambapo tayari imeanza kuonekana. Pale ambapo rasilimali ya maji na uhaba wa ardhi yenye rutba unapotokea, mgogoro baina ya wanajamii huibuka. Mara nyingi migogoro hii hutokea ndani vijiji au baina ya vijiji na vijiji na mara chache sana huibua vurugu.

Wote kwa pamoja wadau wa kitaifa na wale wadau wenyeji wametoa maoni kuwa kuna ukosefu wa kutokuwepo kwa mwamko au uelewa na elimu katika masuala ya mabadiliko ya hali ya hewa na hivyo kutokuwa tayari kushiriki katika hatua mbali mbali za kukabiliana na mabadiliko hayo, katika pande zote mbili, serikali na pia miuongoni mwa wenyeji katika jamii husika, Hata hivyo, baadhi ya wenyeji wa wanajamii wamefahamu madhara yatokanayo na athari zitokanazo na vitendo vyao, kama vile ukataji wa miti ya mikoko ovyo, ila waliona kuwa vitendo hivyo ndio sehemu kuu ya kujikimu katika maisha yao ya kila siku, kutokana na kukosekana kwa njia mbadala.

Kuna wasiwasi mongoni mwa wadau ikiwa kweli kuna utayari na nia ya dhati katika kuweka mikakati ya muda mrefu ya kukabiliana na hali hiyo. Uzoefu unaonesha kuwa wadau wengi wa kitaifa kuwa, njia ya mfumo jumuishi (mfumo wa pamoja) bado haijazingatiwa. Njia za kukabiliana na

mabadiliko ya hali ya hewa hazijaingizwa au kujumuishwa kivitendo katika mipango ya kisekta. Badala yake jitihada za kukabiliana na hali hiyo zimebaki katika hali ya mgawanyiko. Ikiwa ni pamoja na matokeo ya kuwepo kwa mgawanyiko wa rasilimali na wakati mwengine hata kutofautiana kisera, vipaombele, na hata utendaji.

Mradi umejengwa kulingana na miradi na program zilizopo na zilizopita Zanzibar, kwa pamoja baina ya wale watendaji wa ndani na wale wa mashirika ya kimatatifa. Katika kipindi cha mchakato wa mpango shirikishi watendaji hawa walishiriki kikamilifu kuingiza matokeo ya mradi huu katika kazi zao na pia kinyume chake. Baada ya mwezi wa Disemba 2016, Idara ya Mazingira (DoE) itakuwa ndio mtekelezaji mkuu wa Mkakati wa Mabadiliko ya Hali ya Hewa Zanzibar sambamba na Mpango wa Kukabiliana na Hali ya Hewa Vijijini (LCAPs) ambao uliotayarishwa katika kipindi cha mchakato wa mpango shirikishi.

Katika kipindi cha majadiliano cha mkutano wa kwanza wa wadau mbalimbali kuhusu mpango mkakati wa hali ya hewa vijijini, yafutayo ni uono (maono), ujumbe (wito) na malengo ya pamoja ambayo yalijadiliwa na kukubaliwa kwa ajili ya maeneo husika (maeneo lengwa).

- **Uono Jumuishi (Muono wa pamoja):** Kuwa na miongozo kwa vijiji vya Mkokotoni, Nungwi na Mjini Kiuyu yenye kupunguza makali ya hali ya hewa ifikapo 2030, ambayo inatarajiwa kuwa na ufanisi na kuweza kukabiliana na athari za mabadiliko ya hali ya hewa.
- **Wito (ujumbe):** Kupunguza hatari na uharibifu unaotokana na athari za mabadiliko ya hali ya hewa za sasa na zile za baadae kwa unafuu, na uwezekano wa kunufaika kutokana na mabadiliko ya hali ya hewa.

- **Lengo Kuu:** Kupunguza hali ya mazingira magumu (hatarishi) kutokana na athari za mabadiliko ya hali ya hewa kwa Mkokotoni, Nungwi na Mjini Kiuyu
  - **Lengo 1:** Kuanzisha upya na kuboresha mifumo (taratibu) iliyopo ya kupunguza hatari ya maafa, hasa katika sekta za kiuchumi ambazo zina umuhimu mkubwa na ambazo zipo katika hali hatarishi (hali ngumu) kutokana na athari za mabadiliko ya hali ya hewa.
  - **Lengo 2:** Kushajihisha uwezo wa kuhimili mifumo ya kiasili, hasa mifumo ya ikologia iliyio katika mazingira hatarishi (mazingira magumu) na jamii, hasa jamii zilizo katika mazingira hatarishi, kama vile wakulima masikini, makundi yasiyojiweza na wanawake, ili kuweza kupambana na athari za mabadiliko ya hali ya hewa na mambo mengine hatarishi ambayo yanafanana na hayo katika maisha yao;
  - **Lengo 3:** kujenga uwezo kwa washirika wa ndani, watendaji na wadau kwa ajili ya kuunganisha masuala ya mabadiliko ya hali ya hewa na namna ya kukabiliana nayo katika michakato ya kimaendeleo ya ngazi za chini na ya kitaifa na kuwawezesha namna ya kukabiliana na mambo mabali mbali ya mabadiliko ya hali ya hewa.

#### **Hitimisho na mapendekezo**

Hatua muhimu kwa ajili ya kufikia mafanikio ya maono, wito (ujumbe) na malengo ni kuwa na mkusanyiko wa hatua mbali mbali (ambazo zingeweza kutekelezwa kama ni miradi ya

ndani au hata miradi ya kitaifa) kwa ajili ya kukabiliana na mabadiliko ya hali ya hewa, kupunguza hatari ya maafa na maendeleo endelevu, ambayo itatokana na mchakato wa mpango shirikishi. Mpango shirikishi wa mitaa/vijiji wa Kukabiliana na hali ya hewa ni pamoja na vipengele kadhaa vyta mkakati mtambuka ambavyo vimelenga kuongeza uwezo wa kukabiliana na hali hiyo katika mfumo mzima wa kiutawala:

- Usawa wa pamoja uliojumuisha ngazi zote katika ushirikishwaji wa wadau kwa upana
- Kuboresha usimamizi na kubadilishana taarifa
- Kujenga uwezo, mafunzo na kuimarisha uhamasishaji
- Kuboresha nyanja za kiuchumi na kifedha na kuboresha udhibiti wa hali hatarishi
- Kuboresha mifumo ya ushirikiano

Jumla ya hatua za kufanya zipatazo 23 zilifanyiwa tathmini na wadau pamoja na wataalamu, katika majadiliano ya mukutano wa kwanza wa kitaifa wa wadau mbali mbali na pia hata katika mazingira ya nje ya majadiliano kwa kutumia njia ya uchambuzi kuitia vigezo mbali mbali (upembuzi yakinifu). Utaratibu huo wa uchambuzi umejumuisha athari na uwezekano wa vipaombele vilivyochanguliwa kwa ajili ya utatuzi wa matatizo kutokana na hatua tofauti. Athari za hatua mbali mbali zifuatavyo zilifanyiwa uchambuzi:

1. Uchumi, mfano. Ni vipi hatua ya utekelezaji itapelekea athari ya upatikanaji wa maji kwa ajili ya kilimo au viwanda
2. Mambo ya kijamii na kiuchumi, mfano. Huduma za kijamii, fursa za utalii, usumbufu katika kijiji, kutambua masuala ya kidini, kutambua mambo ya kihistoria/mamboya kale.

3. Afya ya umma, mfano. Upatikanaji wa maji ya kunywa na usafi wa kimazingira, magonjwa ya kuambukiza na athari nyengine za kiafya, usalama kutokana na mafuriko.
4. Mazingira, mfano. Usumbufo katika maeneo ya makaazi (katika maji, maeneo ya pembezoni mwa mito au maziwa, maeneo ya miinuko); athari katika ubora na wingi wa maji ili kujua uwezekano wa kila hatua ulifanyiwa uchambuzi kupitia katika maeneo ya:
  - a. Katika masuala ya kiufundi, mfano. Urahisi katika utekelezaji, kutokufaa na kufaa kwa suluhisho, kubadilika kutokana na mazingira, uimara (kuhimili)
  - b. Utengamano na mipango mengine, mfano. Jee hatua inaweza kusaidia kufanikisha au kuathiri malengo ya taifa.
  - c. Makadirio ya gharama za uwekezaji
  - d. Kuzingatia masuala ya kisiasa, mfano. Jee suluhisho linaweza kukubalika au kutokubalika kisiasa.

Utaratibu huo wa uchambuzi ulikuja na orodha ya hatua zilizopo hapo chini. Kati ya hatua 23, hatua 19 zinatekelezeka katika sehemu zote tatu husika (sehemu lengwa).

1. Utoaji wa elimu, kukuza uhamasishaji na kuzingatia mamabo ya mabadiliko ya hali ya hewa na mazingira katika mafunzo ya ufundi. (alama 15)
2. Uvunaji wa maji ya mvua (alama 11)
3. Urejeshaji na utunzaji wa mikoko (alama 10)
4. Uboreshaji wa usafi wa mazingira na ujenzi wa vyoo (alama 10)
5. Tuta la gharama nafuu kwa Mkokotoni (alama 10)

6. Kutayarisha sera za usimamizizi endelevu wa maji yaliyoko chini ya ardhi (alam 9)
7. Kuanzisha na kuboresha kamati za mazingira (alama 9)
8. Kushajihisha nishati mbadala ya kupikia na yenye ufanisi kwa Mjini Kiuyu (alama 9)
9. Kuboresha mifumo ya michirizi ya maji mijini (alama 8)
10. Ukulima wa miti ya juu (alama 7)
11. Miundombinu muhimu iliyozingatia hali ya hewa (alama 7)
12. Kukuza uchumi na maisha ya watu na (mbadala wa) mafunzo kwa vitendo (alama 6)
13. Kuboresha mfumo wa ufuutiliaji na kuripoti (alama 6)
14. Kuanzisha mpangilio mpya wa kifedha (alama 5)
15. Kutibu maji machafu na kutumika tena (alama 5)
16. Ukuta Nungwi (alama 5)
17. Uboreshaji wa fukwe (alama 4)
18. Kuchuja maji chumvi kuwa maji matamu (alama 4)
19. Kilimo cha umwagiliaji (alama 4)
20. Uvuvi wa kisasa na endelevu (alama 4)
21. Kushajihisha aina za mbaegu zenye kustahamili ukame na ukulima mchanganyiko (wa miti ya matunda, mbogamboga, matunda na mauwa) (alama 4)
22. Kushajihisha ukulima wa mwani (alama 4)
23. Mpango wa kuhamia sehemu nyengine kimakaazi (alama 1)

Ikiwa ni kama hatua inayofuata, kwa muono wa haraka umeibua hatua ambazo utekelezaji wake ama usiowezekana au unaowezekana kuwezesha kutekeleza hatua nyengine. Kutokana na muono huo wa haraka, tumependekeza kujikita na kuendeleza zaidi katika maeneo (hatua) sita katika kipindi cha muda mfupi, ambazo zitatoa msingi wa

utekelezaji wa hatua za utekelezaji (maeneo) nyengine.

Maeneo yanayowezesha utawala kiutekelezaji

1. Kuanzisha mpangilio mpya wa kifedha
2. Utoaji wa elimu, kukuza uhamasishaji na kuzingatia mamabo ya mabadiliko ya hali ya hewa na mazingira katika mafunzo ya ufundi
3. Kuboresha mfumo wa ufuatiliaji na kuripoti
4. Kuanzisha na kuboresha kamati za mazingira

Hatua (maeneo ya utekelezaji) muhimu za utekelezaji

5. Kutibu maji machafu na kutumika tena
6. Urejeshaji na utunzaji wa mikoko

Lazima izingatiwe kuwa kila eneo la utekelezaji lazima litanguliwe na upembuzi yakinifu. Gharama za upembuzi yakinifu ni kati ya €30.000 hadi €50.000.

Mradi huu unaipa Serikali ya Mapinduzi ya Zanzibar nyenzo muhimu na thabiti ambayo inaunga mkono utekelezaji wa Mkakati wa Mabadiliko ya Hali ya Hewa wa Zanzibar. Njia ya utambuzi wa matatizo katika ngazi ya shina (chini) na masuluhisho kuititia mchakato wa mpango shirikishi unasaidia kuanzisha uchumi endelevu wenyekuwaleta (kuwajumuisha) watu pamoja ambao umezingatia kukabiliana na mabadiliko ya hali ya hewa.

Local Climate Action Plans: Mjini Kiuyu, Mkokotoni, and Nungwi

## Executive Summary

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