ADAPTATION FUTURES 2025
ACCELERATING ADAPTATION ACTION

Knowledge co-creation in building community resilience to extreme events: Experience from the PALM-TREEs Project in Nigeria

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Oct. 13 to 16
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ADAPTATION FUTURES 2025
ACCELERATING ADAPTATION ACTION

PALM-TREEs

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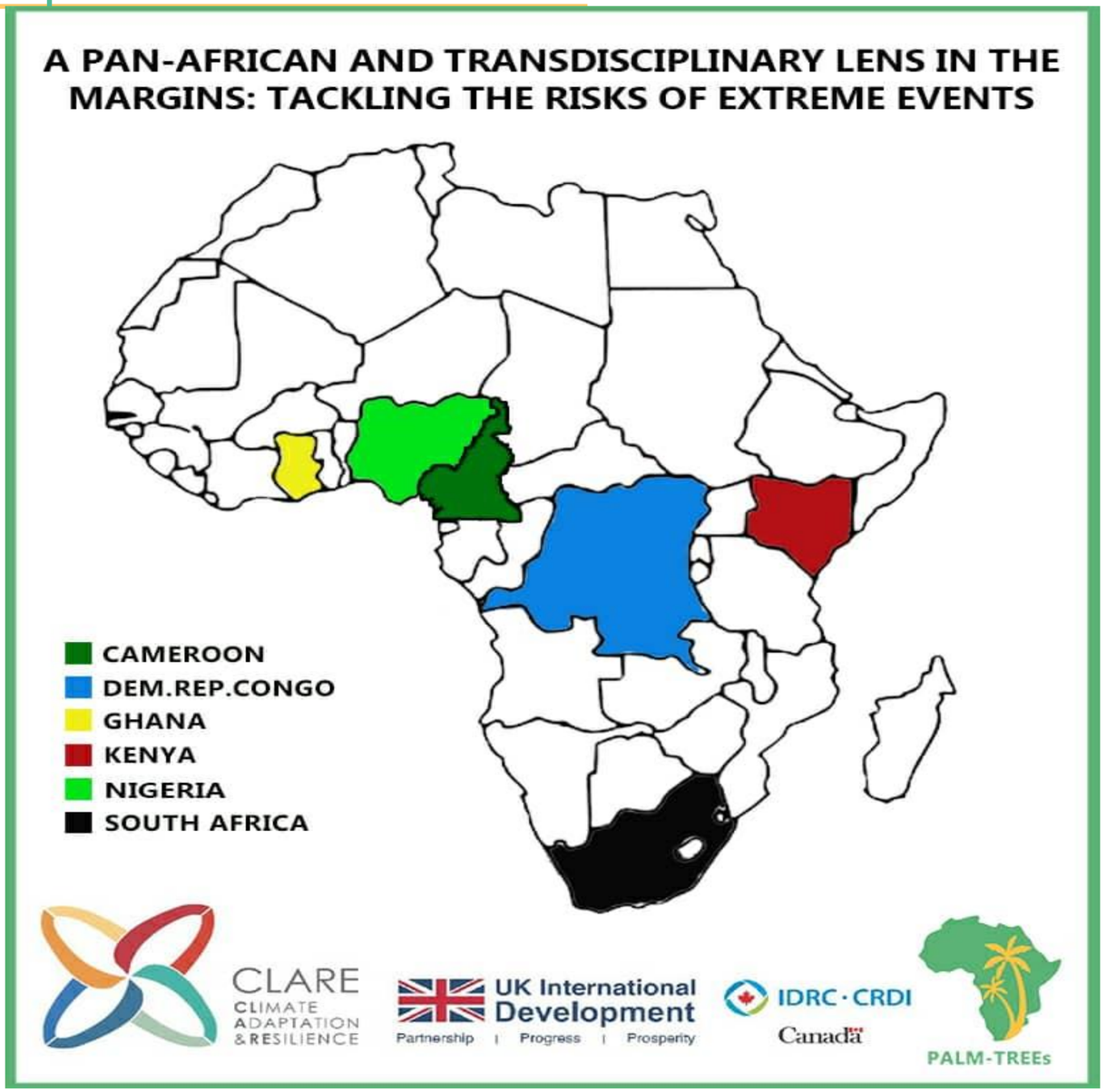
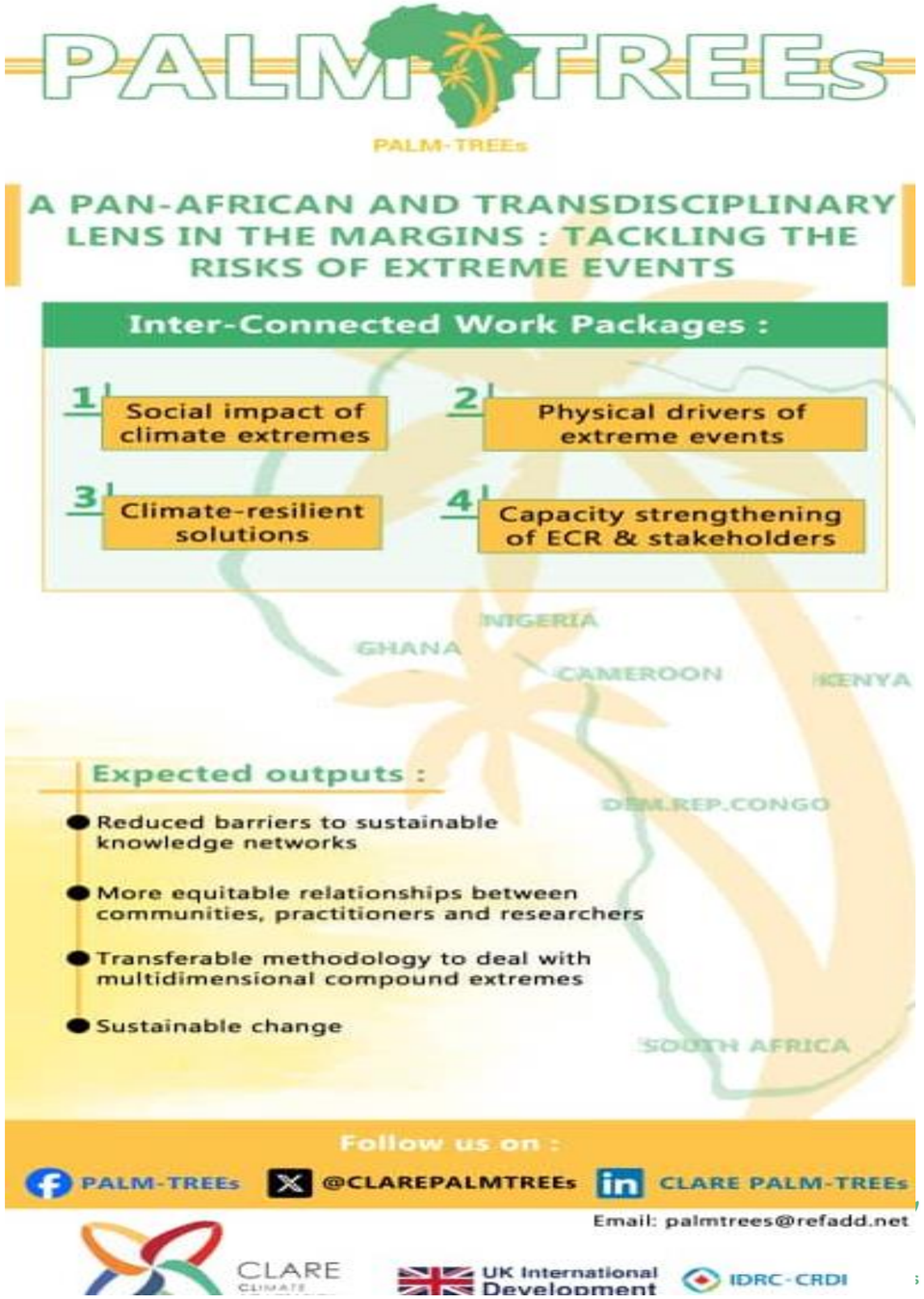
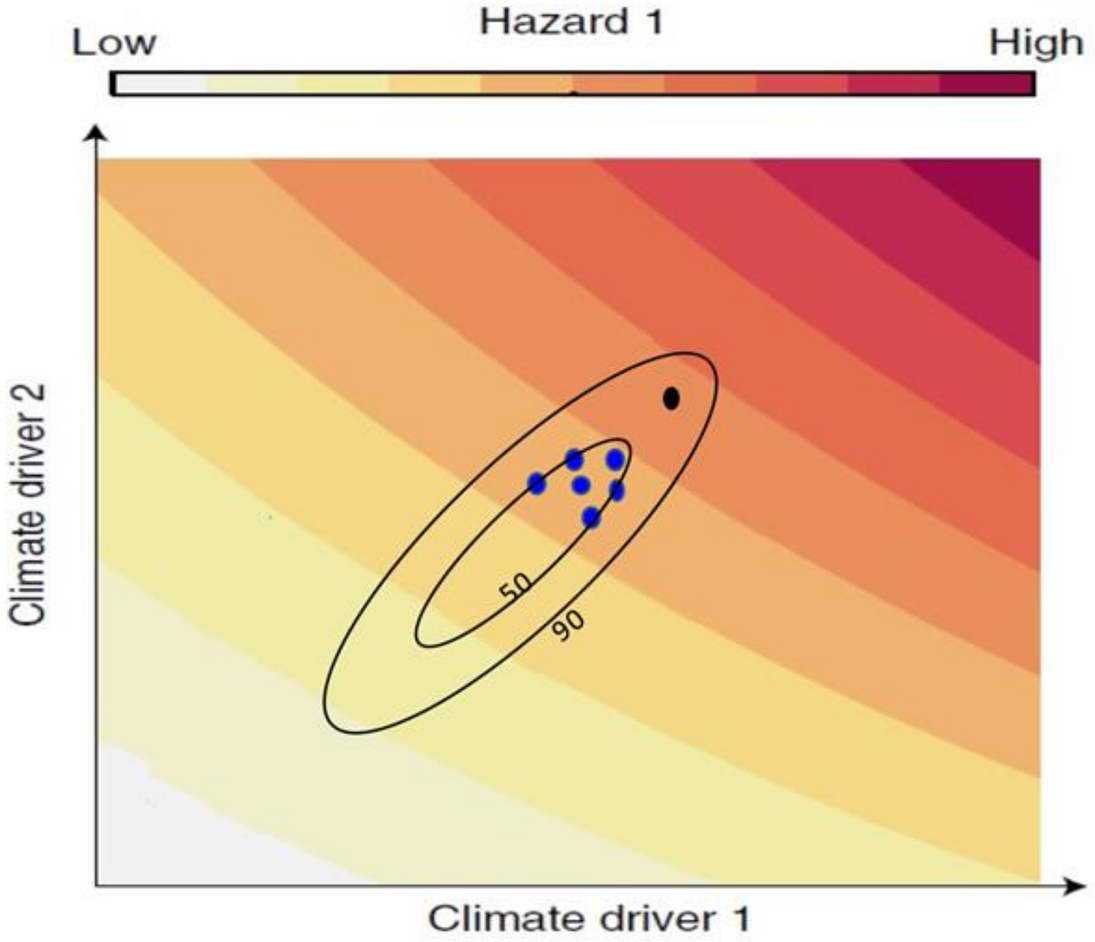
Participating Countries and Work Packages



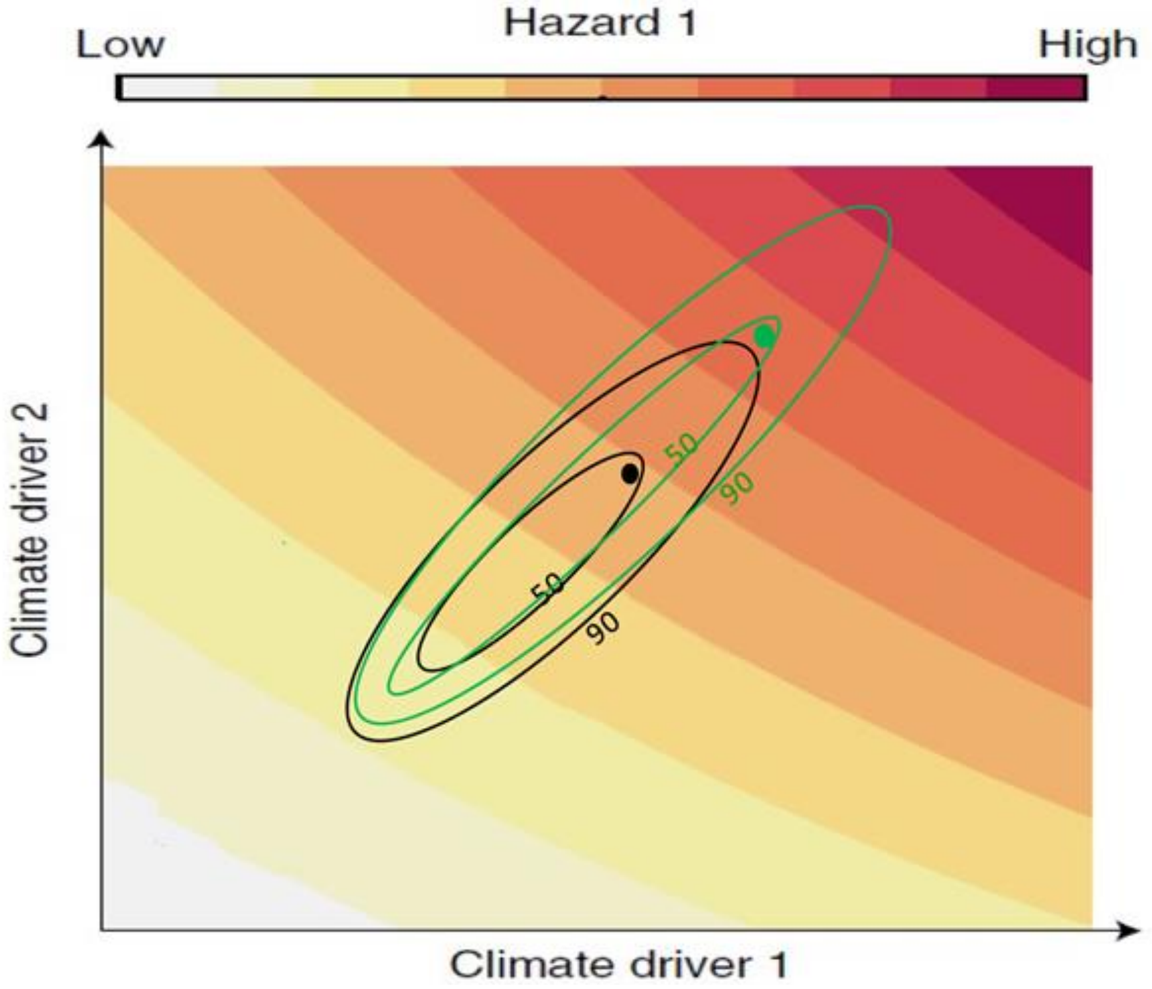


PALM-TREEs Specific Objectives

- Develop a nuanced understanding of differential impacts of climate extremes based on gender and other intersecting social identities
- identifying the underlying causes of climate extremes and assessing the accuracy of modeling tools, researchers can develop more accurate projections of future climate risks and inform the development of effective adaptation and mitigation strategies.
- Use a trans-disciplinary and co-development approach to research and stakeholder engagement and develop strong local knowledge networks.
- Develop new climate information tools that support tailored, accessible, and useable climate information to strengthen the agency of marginalised groups and those providing and designing climate services.
- Influence climate risk policies and practices impacting those on the margins across regions,



Hypothetical distribution of climatic drivers and associated hazards. The contours show the statistically defined threshold for hazards (i.e., 50th and 90th percentile of the distribution).The black dot shows a government/ institutional threshold of a hazard.The blue dots show the thresholds at which various margins are vulnerable to the hazard (Modified after Zscheischler et al, 2018).



Projecting impacts of climate change on climatic drivers and associated hazards. The contours show the hypothetical distribution of two climatic drivers for the present-day (black) and future climates (green). The black dot denotes an example of critical event that affect the margins in the present-day climate and the projection or scaling of the event the future climate. (Modified after Zscheischler et al, 2018).

PALM-TREEs in Nigeria

PALM-TREEs Targets

The PALM-TREEs :

- is a Pan-African and trans-disciplinary, with social and physical researchers
- Will create climate information that responds to local risk impacts
- Will co-produce new approaches
- Will strengthen the inclusive and equitable knowledge networks
- Will actively include those on the
- Will work with stakeholders and communities on policies and practices and co-produced climate information.
- We co-design better life for the margins

Nigeria Case Studies

Deconstructing the risk of extreme events from the perspective of the Margins

Focus on:

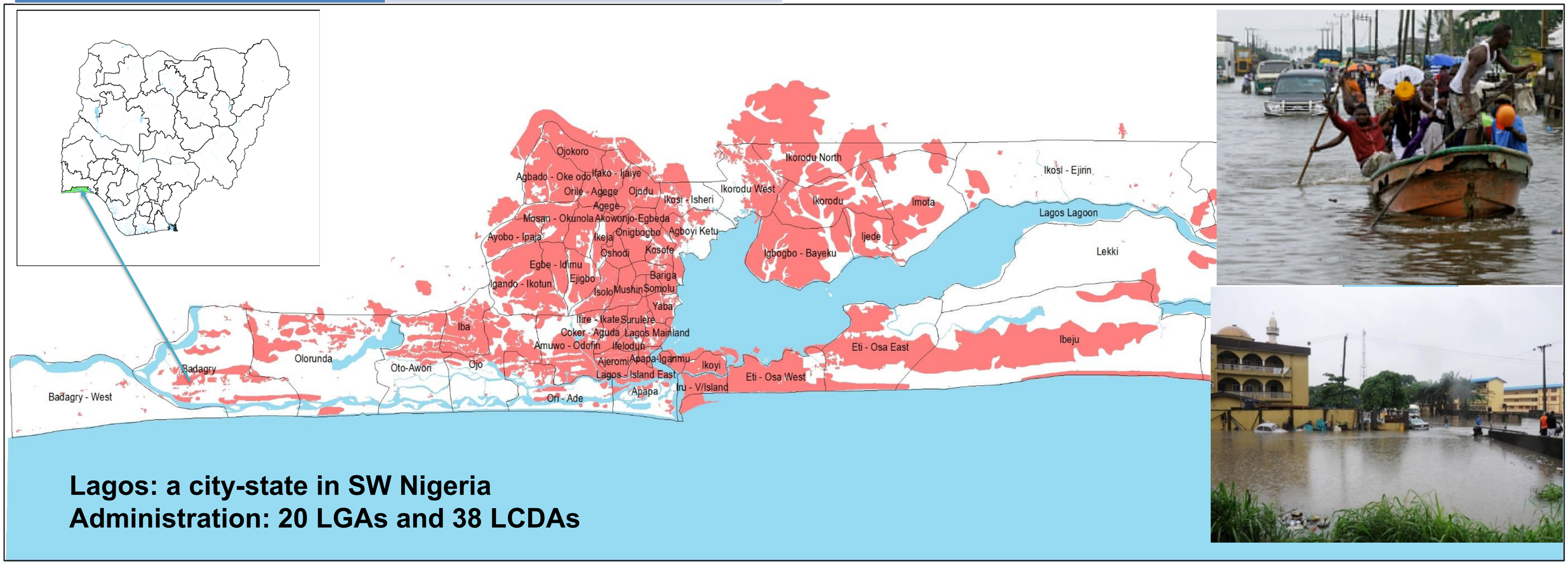
- **Lagos: Flood and Heat Stress – Led by LEAD CITY UNIVERSITY**

NISER to Coordinate Stakeholders and Policy Engagements for both

- **Middle-Belt: Flood and Drought – Led by UNIVERSITY OF LAGOS**

Land area (km2)	3,577.00
Population 2015 (millions)[a]	12.00
Population density	4,907 average (with some LGAs higher 20,000+
Demography	Youthful (54% population under 25years)
GDP per Capita (in billion USD) (2016)[b]	136.6 (26% of Nigeria's GDP): formal sector contributes US90B
Industry	60% of Industrial Investment, 90% corporate Headquarters

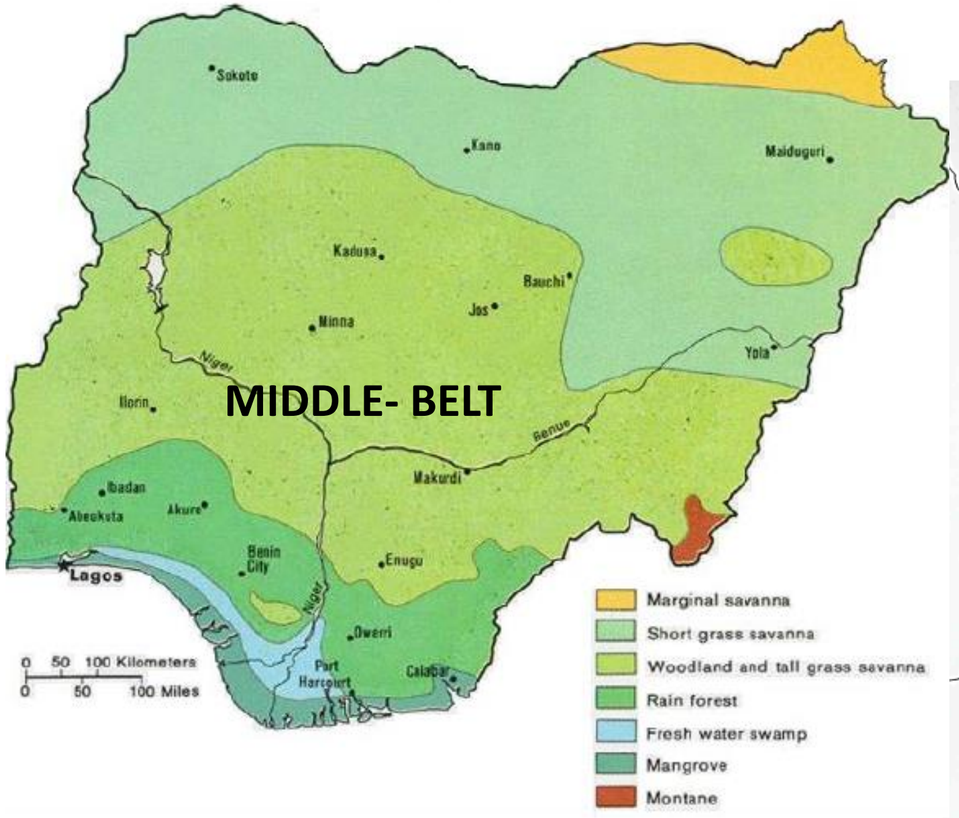
Access to Water	33% access to pipe-borne water (210 m L/day instead of 794m L/day)
Health and Well-being Issues	Water, Waste Management, Air pollution and Climate change
Health Resilience Shock	Disease Outbreak - Lassa, Cholera, Measle, Ebola, COVID-19
Resilience Network	LAGOS JOINS 100RC NETWORK in 2016

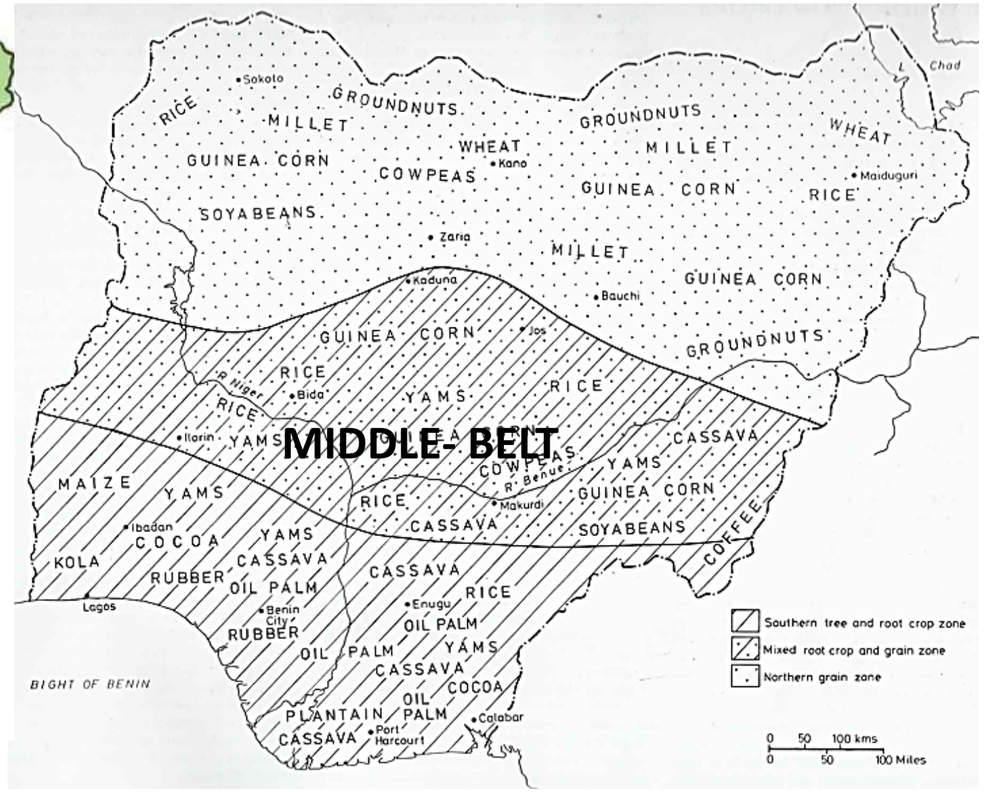


Lagos: a city-state in SW Nigeria
Administration: 20 LGAs and 38 LCDAs

Middle-Belt of Nigeria (focus on Kwara State) –

- Large agrarian population - smallholder farmers
- Ranked poorly on the indices of poverty, hunger, and child malnutrition
- Highly vulnerable to annual flooding from the Niger River and its local tributaries –
- Agricultural and Meteorological drought cause loss of scarce resources on seeds and cultivars



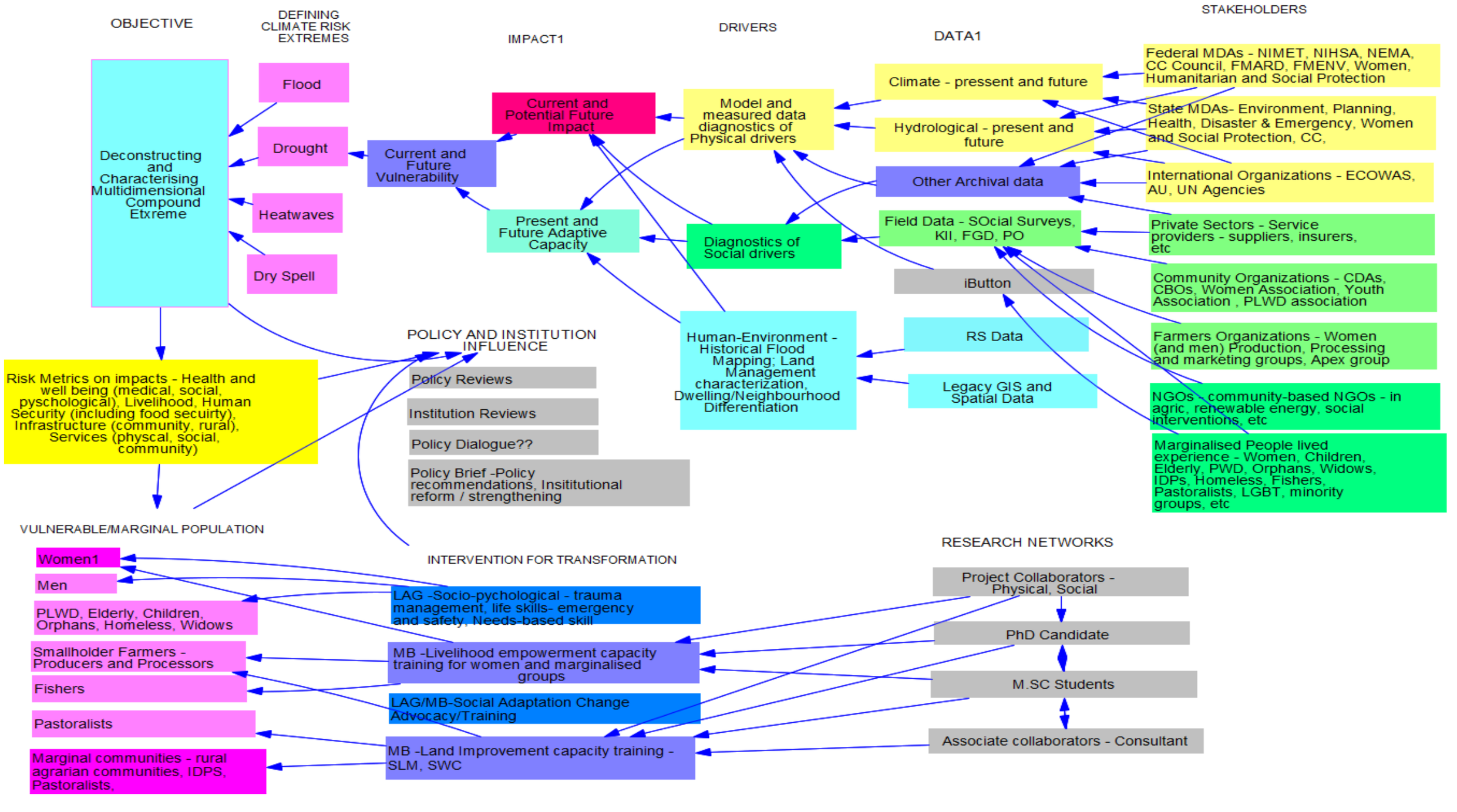


Research Questions

1) What is the nature of denominated impacts of, and response to, flood, drought, and heat stress conditions among differential civil/social groups in Lagos and the Mid-belt of Nigeria?
2) How much does differentiated flood, drought and heatwaves impacts on health, livelihood, human security, land resources, and access to social services and support systems of the vulnerable and marginalised groups – women, children, PLWD, IDPs, orphans, widows, etc.
3) How does the people on the margins prepare, adjust, and adapt to extreme events.
4) How does the insights from i, ii and iii above helps in constructing ‘extremeness’ of climatic events from the lens of the people and communities on the margins?
5) How does the insights from i, ii and iii above helps in framing climate risk and vulnerability from an interdisciplinary perspective - combining both the hard physical data and social lived experiences of the marginalised people?
6) How well can transformational interventions including training and life skills, livelihood capacity empowerment, social adaptation advocacy, land capacity improvement training, etc. contribute to strengthening resilience of the people on the margin.

Specific Objectives for PALM-TREEs Nigeria

1. Determine the pattern and drivers of floods and drought conditions in the study area - *hotspots analysis for flood, drought and heat stress conditions*
2. Explore the nature of denominated impacts (exposure and sensitivity) of drought, flood and heat stress among differential civil/social groups – *impacts on livelihoods, health and human security, land resources, and access to social services and support systems etc*
3. Analyse the responses (adaptive capacities) to flood and drought conditions among vulnerable and marginalised groups - *how they prepare, adjust, and adapt to extreme events*
4. Determine the pattern of vulnerability of the people and communities in study area - *combining both the physical data and social lived experiences of the people people*
5. Construct 'extremeness' of flood and drought events from the from the lens of the people and communities on the margins – *from lived experiences of the people on the margins*
6. Implement transformational interventions including nature-based solutions and livelihood and life-skill trainings and capacity empowerment to improve resilience – *strengthen resilience of people on the marginalized through life skills empowerment and social adaptation advocacy, training, etc*.


OBJECTIVE
DEFINING CLIMATE RISK EXTREMES
IMPACT1
DRIVERS
DATA1
STAKEHOLDERS
Deconstructing and Characterising Multidimensional Compound Etxreme
Flood
Drought
Heatwaves
Dry Spell
Current and Future Vulnerability
Current and Potential Future Impact
Present and Future Adaptive Capacity
Model and measured data diagnostics of Physical drivers
Diagnostics of Social drivers
Human-Environment - Historical Flood Mapping; Land Management characterization, Dwelling/Neighbourhood Differentiation
Climate - pressent and future
Hydrological - present and future
Other Archival data
Field Data - SOcial Surveys, KII, FGD, PO
iButton
RS Data
Legacy GIS and Spatial Data
Federal MDAs - NIMET, NIHSA, NEMA, CC Council, FMARD, FMENV, Women, Humanitarian and Social Protection
State MDAs- Environment, Planning, Health, Disaster & Emergency, Women and Social Protection, CC,
International Organizations - ECOWAS, AU, UN Agencies
Private Sectors - Service providers - suppliers, insurers, etc
Community Organizations - CDAs, CBOs, Women Association, Youth Association , PLWD association
Farmers Organizations - Women (and men) Production, Processing and marketing groups, Apex group
NGOs - community-based NGOs - in agric, renewable energy, social interventions, etc
Marginalised People lived experience - Women, Children, Elderly, PWD, Orphans, Widows, IDPs, Homeless, Fishers, Pastoralists, LGBT, minority groups, etc
POLICY AND INSTITUTION INFLUENCE
Policy Reviews
Institution Reviews
Policy Dialogue??
Policy Brief -Policy recommendations, Insititutional reform / strengthening
Risk Metrics on impacts - Health and well being (medical, social, pyschological), Livelihood, Human Security (including food secuirty), Infrastructure (community, rural), Services (physcal, social, community)
VULNERABLE/MARGINAL POPULATION
Women1
Men
PLWD, Elderly, Children, Orphans, Homeless, Widows
Smallholder Farmers - Producers and Processors
Fishers
Pastoralists
Marginal communities - rural agrarian communities, IDPS, Pastoralists,
INTERVENTION FOR TRANSFORMATION
LAG -Socio-pychological - trauma management, life skills- emergency and safety, Needs-based skill
MB -Livelihood empowerment capacity training for women and marginalised groups
LAG/MB-Social Adaptation Change Advocacy/Training
MB -Land Improvement capacity training - SLM, SWC
RESEARCH NETWORKS
Project Collaborators - Physical, Social
PhD Candidate
M.SC Students
Associate collaborators - Consultant

Our Adopted Co-Creation Process

- Institutional partnership building
- collaboration across physical and social sceintists
- Parnership across sectors and levels of community
- Communitty-led narratives

Cpmmunity Entry and Ethical Protocol

Inception Meetings

Community FGDs and Expert opinions (KIIS)

Soacial Survey: 600 a(lgos) and over 800 (Kwara)questionnaires targeting the margicns6

Policy Consultation Hours

Capacity building: ECS, and Communities

Media engagement

Sceince Hour with PALM-Trees Community

Community Needs assessment for transformational intervention projects

Periodic Methodology worshops

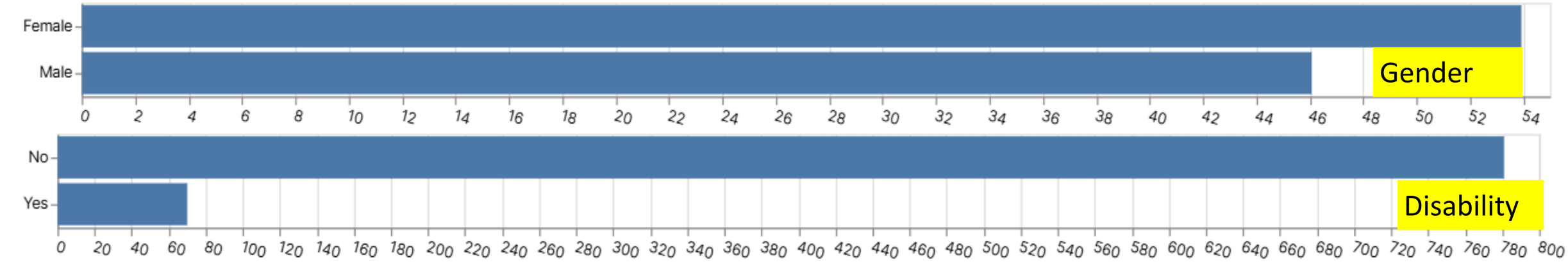
M&E

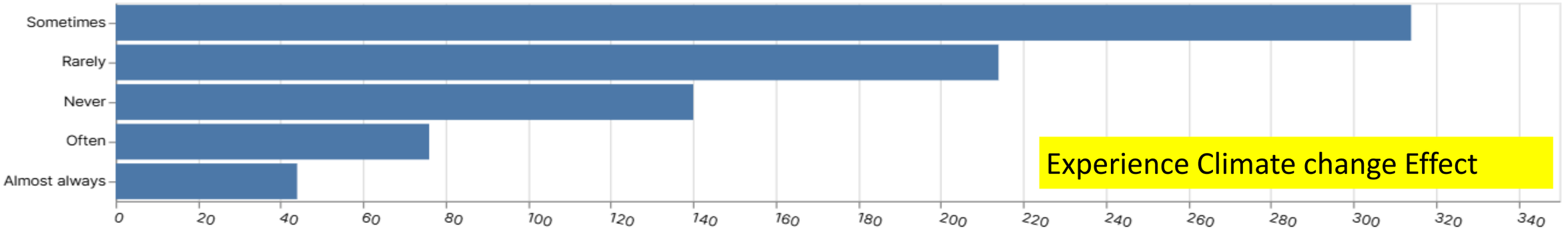
Community-led project implementation

Policy Briefs

Progress _Social Science

Feedback on physical science, social science and transdisciplinary accomplishments; insights on initial results/findings; completed and proposed papers – number and topics; experienced and emerging challenges, lessons learned, collaborations with other projects, institutions, academics.





Progress _Social Science

Feedback on physical science, social science and transdisciplinary accomplishments; insights on initial results/findings; completed and proposed papers – number and topics; experienced and emerging challenges, lessons learned, collaborations with other projects, institutions, academics.

KWARA STATE:

- Inception Meeting - May 15, 2025
- Researchers' Meet to Connect - Fabruary 21, 2024 Methodology Workshop - 20-21 June, 2024

Proposed Schedule for Field Survey

- Training of Enumerators – 28 January 2025
- Pilot Survey: 29 – 30 January 2025
- Main Feid Survey for Questionnaire Administration – 03- 15 February 2025
- Needs Assessment – July-September, 2025

Inception/stakeholder engagement

Summary on the who, what, where, how, how many, experienced and emerging challenges, key insights, lessons learned

KWARA STATE:

- Inception workshop for Kwara- 22 May 2024
- The number of attendees recorded during the event was 110.
- Stakeholder audience – communities' members, policy makers (Government MDAs), Practitioners (NGOs), Researchers, and the Press.
- A press interview session was conducted and press release made to disseminate the purpose of the PT

Accomplishments –

- High Influence stakeholder – MDA and Press were present
- Wide reportage of the proceeding of the inception workshop

Challenges –

Social inclusion due to religious and cultural barriers – attendance: **84m/26f**

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Inception/stakeholder engagement

Summary on the who, what, where, how, how many, experienced and emerging challenges, key insights, lessons learned

LAGOS *INCEPTION*

Inception Workshop: 23 April 2024

- The number of attendees recorded during the event was 69.
- Stakeholder audience – communities' members, policy makers (Government MDAs), Practitioners (NGOs), Private sector participant, Researchers, and the Press.
- A press interview session was conducted and press release made to disseminate the purpose of the PT

Accomplishments/outcome –

- created awareness and aligning all stakeholders on the project goals, objectives and deliverables
- High Influence stakeholder – MDA and Press were present
- Wide reportage of the proceeding of the inception workshop

Challenges –

Social inclusion – attendance **43m/26f**

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LAGOS *Policy Consultation Hour /* stakeholder engagement

Summary on the who, what, where, how, how many, experienced and emerging challenges, key insights, lessons learned

- January 23, 2025

Purpose: To mine stateholders perspectives on climate-related policies (decision-making processes, communication, implememntation and feedbacks)

- The number of attendees recorded during the event was 43
- Stakeholder audience – communities' members, policy makers (Government MDAs), Practitioners (NGOs), Private sector participant and Researchers.
- Approach: A Systestemic Group Intergration Model (SGIM)
- Needs Assessment for Intervention projects (Phase 1(8 communities in Lagos and 10 communities in Kwara) (July-Septemeber 2025)

PALM-TREEs Overall Outcome

- *Reduced barriers to sustainable knowledge networks:* improved understanding of barriers to sustainable local knowledge networks and strategies to support them better.
- *More equitable relationships between communities, practitioners, and researchers to facilitate knowledge exchange:* build better feedback mechanisms and engagement in questioning discriminatory norms and power hierarchies for more sustainable transformation in these relationships.
- *Sustainable change:* New partnerships built during the project that will carry forward methodologies and research developed.
- *Transferable methodology to understand and respond to 'multidimensional compound extremes':* develop transferable and well-contextualised tools, and engagements reproduceable in other contexts, especially in Africa.

Implications

Stories of realities during extreme events are shaped by social identities (Intersectionality)

Multidimensional drivers vs

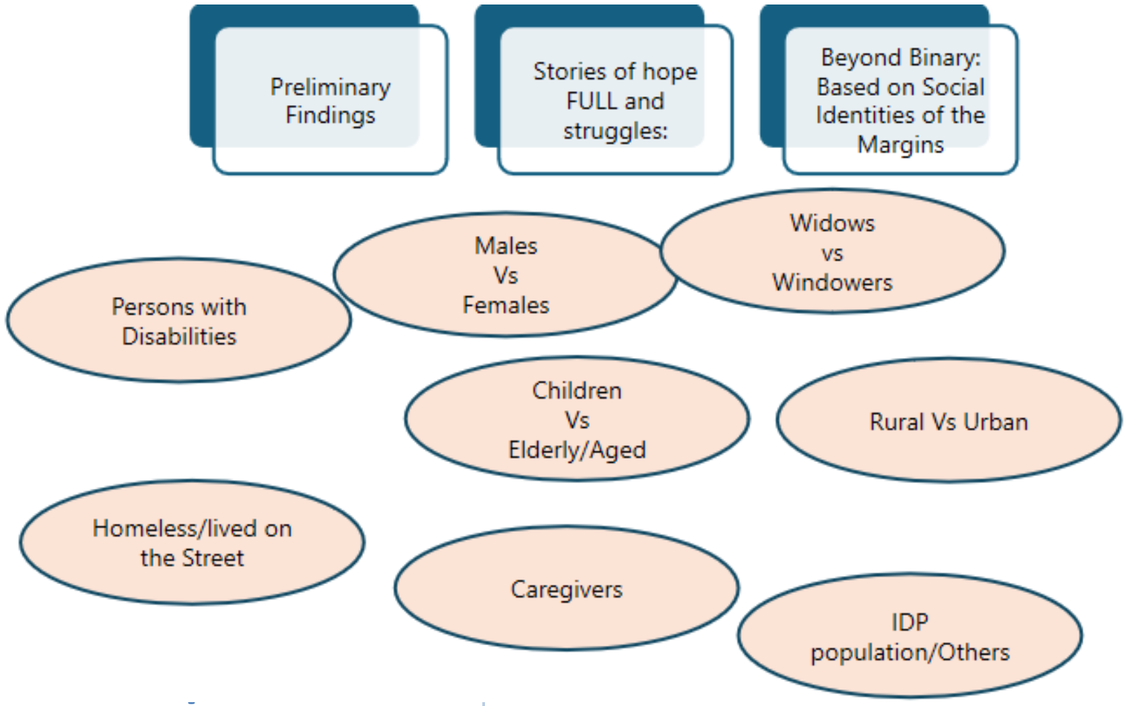
Adaptation is contextual.

Collaboration across sectors and across levels of governancer

Communication barrier is broken

Social media as a platform for feedbacks etc.

Disaggregated Data Collection



Understand user needs

Collect data on gender-specific usage patterns and preferences.

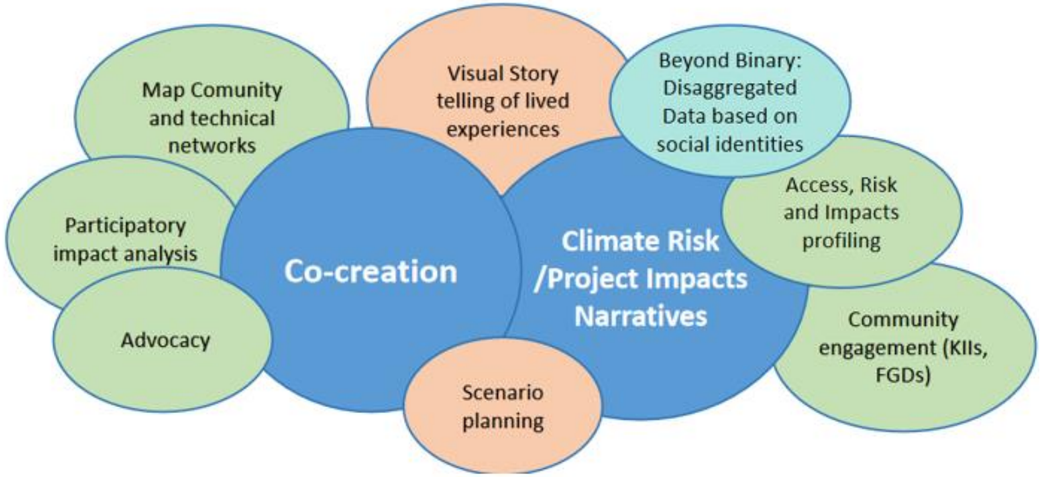
Analyze sp

Identify location-based and gender-based disparities in the risks, impacts and adaptive capacities

Develop gender-responsive adaptation and resilience strategies.

Empowering Communities' Voices

- Increased Representation of all Groups
  - Recognised interconnectivities of stakeholders anc their resposnsibility juridisctions.
  - Story telling was used.
  - A Shared understanding of climate resilience and programmes that are working in each contextctive
  - Inclusive Design
  - Incorporating community needs and perspectives
- Collaborative Approach
  - Breaking communication barrier. Consensus building and feedbacks through social media engagement with our stakeholders
  - Increase community's ownership of intervention projects- They are the real managers



Visual story telling

- ..I am happy that you are relating directly with us. Most often, we are not in the knowing of many government agenda. We have no one to represebnt us. Even when we are not comfortable with the decision, we had no voice...

A female resident at Ajegunle, Lagos

We have been living together over the years. We dont trust teh public agencies. Most of their solutions during floods leads to displacement. We dont want to leave our place. This is our portion. They can help us without moving us from our ancestral homes. An household head at Epe, Lagos

I coun not count teh loss. My properties are gone. My credentials and everything I have worked for. We dont know the cause of this disaster. We wake up on teh early hour of August 3, 2025 and there is water everywhere. This is not like the annaul flooding during dam openings

I am limited with locomotion. But my intellect is not limited. I a,m into vegetable farming during dry season. I also provide radio repair services and shoe making to my communities.
A PwD in Omupo, Kwara

Observed Challenges

01

Distrust based on past experience of the communities

There were initial repulsive attitude from Local communties based on past experiences and failure of integration of aggreed plans on some projects

02

Gate Keepers Creating Barriers

During Community FGDs, some Gate keepers are found to connect with their allies and not the real margins..

03

Data sharing form public agencies is not easy

Availability of data does not translate to accessibility. This limit the validity posssibility of some information that were provided by the communities

04

Contextual risk mapping is tied to people's realities

It is difficult to convince the communities of the risks becuase of fear of eviction and their attachement to their space. Socal inclusion during meetings is still low ocial inclusion –e.g. attendance 3**3m/20f**

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