



# 26TH ANNUAL RESEARCH WORKSHOP - 2022 "ADAPTING TRADE TO CLIMATE CHANGE FOR COMPETITIVE GREEN GROWTH"

WORKSHOP REPORT

01-02 November 2022, Golden Tulip Hotel – Airport, Zanzibar

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# List of Acronyms

AFCTA	African Continental Free Trade Agreement
AFDB	African Development Bank
AGOA	African Growth and Opportunity Act
AMCOS	Agricultural Marketing Co-operative Societies
ARW	Annual Research Workshop
AU	African Union
BE	Blue Economy
CEORt	Chief Executive Officer Roundtable
CSA	Climate Smart Agriculture
DPs	Development Partners
DRC	Democratic Republic of Congo
EAC	East African Community
EU	European Union
FDI	Foreign Direct Investment
FYDP III	Five Year Development Plan III
GBW	Great Blue Wall
GHGs	Green House Gases
ІСТ	Information Communication Technology
LNG	Liquified Natural Gas

ZMBEF	Zanzibar Ministry of Blue Economy and Fisheries
ZMTID	Zanzibar Ministry of Trade and Industrial Development
ΜΟυ	Memorandum of Understanding
MPAs	Marine Protected Areas
NTB	Non-Tariff Barrier
PASGR	Partnership for African Social and Governance Research
PPP	Public Private Partnership
R&D	Research and Development
SADC	Southern African Development Community
SSA	Sub-Saharan Africa
SIDO	Small Industry Development Organization
SMEs	Small and Medium Enterprises
SSA	Sub Saharan Africa
TACATDP	Tanzania Agriculture Climate Adaptation Technology Deployment Programme
UNECA	United Nations Economic Commission for Africa
ωтο	World Trade Organization
ZIPA	Zanzibar Investment Promotion Authority



### Introduction

REPOA's 26th Annual Research Workshop (ARW) held in Zanzibar, Tanzania between 2-3, November 2022 was organized in collaboration with the Zanzibar's Ministry of Trade and Industrial Development (ZMTID) and the CRDB Bank Limited. The theme of this year's workshop was "Adapting Trade to Climate Change for Competitive Green Growth". The workshop brought together stakeholders from the Government, the banking sector, research institutions, think tanks, academia, private sector, NGOs & CSOs, and development practitioners to discuss how Tanzania can adapt trade to climate change for competitive green growth. The event was officiated by the President of Zanzibar and Chairman of the Revolutionary Council, His Excellency Dr. Hussein Ali Mwinyi. The workshop's keynote address was delivered virtually by a renowned expert Jean-Paul Adam, the Director for Technology, Climate Change and Natural Resources Management at the United Nations Economic Commission for Africa (UNECA).

Over the course of the two days, the ARW was organized around an opening plenary session, three thematic panels and breakout sessions (see programme in Annex). The first day of the workshop focused on policy matters, and was attended by 412 participants, of whom 287 (69%) were women, to critically discuss Tanzania's production and trade architecture, aiming to understand how to realign trade, investments, and related value chains to effectively exploit their potential to contribute to Tanzania's mediumterm development objectives in an era dominated by climate change concerns. The second day of the workshop concentrated on research and capacity development, and was attended by 296 participants, comprising of 174 (58%) women to discuss and contextualize research on the relationship between trade and climate change, climatesmart financing for agriculture, and their confluence in promoting a competitive and increasingly green economy.

REPOA's Annual Research Workshop continues to be the longest running and largest research workshop held in Tanzania by a Tanzanian organization, where researchers, research users, and development stakeholders meet to discuss research findings, their associated implications for development policy in Tanzania and propose areas of further strategic research. The 26th instalment of the workshop provided an inaugural platform to examine and align research and policy objectives on climate change with production, trade, and climate-responsive finance.



## **Opening session**

Mr. Amour Hamil Bakari, Principal Secretary in the Ministry of Trade and Industrial Development, Zanzibar provided welcoming remarks recalling the request made in REPOA's 25th Annual Research workshop by the Minister, ZMTID to:

Strengthen evidence-based decision making in Zanzibar in the context of climate change fueled by Zanzibar's agriculture and value chain focus

Looking at seaweed, spices and horticulture and quality enhancement to increase diversification.

Collaboration between REPOA and the Ministry has yielded results including:

Over 300 farmers, processors and exporters benefiting from training on quality assurance; thanks to Development Partners and the TradeCom II programme;

Ministry staff benefiting from training on policy analyis and report writing;

Indirect spillover fostering inter-ministerial cooperation and analytical capacity across the government feeding into the road map for shared prosperity for the people of Zanzibar.

With CRDB as a partner, the use of Public Private Partnerships (PPPs) was stressed as key for national development emphasizing that the ZMTID promotes inclusive partnerships to meet development agenda and national plans. The Ministry will continue to pursue these partnerships.

On behalf of the organizers, Dr. Donald Mmari, Executive Director, REPOA recognized efforts made by government of Tanzania to improve the economy in post Covid-19 and the war in Ukraine, further acknowledging the difficult task to enhance the restructuring of the economy, along rising with inflation and a global recession. Stressing that in Sub Saharan Africa (SSA), growth is projected to slow down in 2022 leading to increased poverty and, in that regard, climate change will only make the situation worse and recovery slow. With an estimated 22 million jobs losses and increased poverty trend to continue into 2023, more efforts will be needed to improve the business environment; diversifying the economy; and mitigating, and adapting to climate change.



REPOA's Executive Director, Dr. Donald MMari delivering the welcoming remarks.

Dr. Mmari stressed REPOA's continued contribution to evidence creation and use in decision making, dialogues, forums, as well as serving on government technical teams and committee to review and develop policies and strategies for inclusive and sustainable growth. Also, a focus on productive sectors, gender equality, women and

youth, good governance, environment, climate change and innovation are important within the Five-Year Development Plan III and new 2050 vision, serving as a strong foundation for the workshop. Dr. Mmari reiterated that the theme for this year's workshop is driven by: National aspirations, strengthening the economy by increasing competitiveness which entails the need to look at linkages and integration;

Importance of trade diversification (cost, segmentation, new markets), new demands for innovation and adaptive technologies, and changing drivers of efficiency;

Climate change and its impact are likely to impact trade growth, with dependency on exports from vulnerable sectors.

With this, access to technology as well as climate change financing with more efforts on innovation will remain critical to Tanzania. To fuel this, knowledge exchange is needed for green industrial policy, resilience, diversification as well as sustainable frameworks to find appropriate solutions and strategies.

Workshop partners represented by Mr. Abdulmajid Nsekela, CEO and Managing Director of CRDB, demonstrated:

How CRBD is positioned to integrate the practice of financial services with sustainable development through its Tanzania Agriculture Climate Adaptation Technology Deployment Programme (TACATDP);

The bank's accreditation to the Green Climate Fund (GCF) of US\$250Mn;

Emphasizing that the impact of climate change in Tanzania is affecting trade and the economy.



CRDB Managing Director, Mr. AbdulMajid Nsekela delivering his remarks during the workshop.

Water, drought and other natural phenomena are affecting the business sectors, productivity and agriculture, which needs collective efforts and innovative solutions. To tackle the challenges, CRDB created a department of green climate, addressing more than just environment, calling for partners to work together to build financial muscle to counter climate change. As the first commercial bank to secure green funds (USD 250 million) there will be millions of direct and indirect beneficiaries.



- A new project in both mainland and Zanzibar will be launched with a focus on low interest loans, capacity building and technology, climate change fund (insurance funds), and USD 10 million to act as collateral for the farmers;
- This project will work closely with the Ministry of Blue Economy and Fisheries (ZMBEF) in Zanzibar to cultivate smart cities by focusing on innovative and sustainable use of electricity, health, food, water, smart cities, forest, Information Communication Technology (ICT) ecosystems and transportation.



- These funds accredited by green climate can help the government apply for loans directly with low interest, but also organizations and individuals wanting to work in climate change as well as PPPs;
- Further, it remains important to promote complementarities between climate financing and the policy environment and strategies for effective utilization of the credit facilities, and CRDB is ready to work with government to strengthen the policy environment.

H.E. Mette Norgaard Dissing-Spandet, Ambassador of Denmark to Tanzania representing REPOA's core partners (Ireland, Norway, Sweden, Denmark) echoed sentiments on the presence of climate change evidenced in extreme weathers, drought, wildfires, and rising sea levels. Although historically there have been numerous challenges from

balance of payments to inflation, there is now evidence of adverse impacts of climate change, loss of biodiversity, environmental challenges taking the centre stage and thus calling for action towards a greener and more sustainable future, green jobs, and green air. All countries need to take responsibility and move forward together.



Danish Ambassador to Tanzania, H.E. Mette Norgaard Dissing-Spandet delivering her remarks during the workshop.



H.E. Dissing-Spandet emphasized on the role of core funding as being key for independence, institutional integrity and sustainability of think tanks, and, as such, continued support to REPOA is important to sustain production of information and evidence needed to choose the right path for Tanzania. She urged Development Partners to continue supporting research institutions like REPOA.

National development Partners, represented by H.E.

Manfredo Fanti, Ambassador of the EU to Tanzania, highlighted the European Union's (EU) commitment to mitigating actions with new regulations imposed on businesses to comply with environmental standards. Standards and regulations are becoming stricter, promoting 'farm to fork' policy, halving the use and risk of pesticides and 50% hazardous products by 2030, aiming to increase organic farming which has high demand in the EU. This means Tanzania faces a double challenge:

1) effect of climate change, and

2) trade products must comply with new regulations to be competitive to trade within EU member states.



Ambassador of the EU Delegation to Tanzania, H.E. Manfredo Fanti delivering his remarks during the workshop.

However, Tanzania's FYDP III has clear direction on enhancing value chain and increasing production and export in agriculture sector but needs to increase the competitiveness of strategic crops, enhance storage facility and transportation of products. EU is working to help Tanzania on agriculture and risk assessment on key value

chains—under the trade programme. There are projects in place including AgriConnect Programme and PlantHelp Project to support Tanzania as well as areas for collaboration (data collection) and access to finance (EU committed to provide climate financing). Further emphasizing that Tanzania can:

Benefit from using green bonds and capital markets for cheaper funding for investment in sustainable products;

Make use of the East African regional trade information portals;

Attract EU investment to get more 'know how' in the 'greening' sector through sharing of lessons for Tanzania to adapt its economy to what is needed in the global market.

Welcoming the Guest of Honor to officially open the workshop, Hon. Mudrick Soraga, Minister responsible for Economy and Investment in Zanzibar, stated that the island is at a crossroad and this platform is timely for learning and exchanging views and ideas on how to enhance the development agenda through the use of trade as a tool to foster an inclusive, competitive, sustainable, climate resilient economy.

For Zanzibar, agriculture is key to development and the Blue Economy (BE) for sustainable development. The BE allows to leverage existing comparative advantage and

key trade principles using ocean for growth, backward and forward linkages, tourism, aquaculture, multipurpose ports and renewable energies. There is need for adequate and sustained investment to unlock Zanzibar's competitive potential by focusing on trade facilitation. Zanzibar is part of the EAC customs union, African Union (AU), Southern African Development Community (SADC) as well free trade areas including African Continental Free Trade Area (ACFTA) and ratified entry in World Trade Organization (WTO). Zanzibar is also signatory to the African Growth and Opportunity Act (AGOA). With this, examining trade in the context of climate change is of utmost importance.



Zanzibar's Minister for Economy and Investment, Hon. Mudrick Soraga delivering his remarks during the workshop.

Hon Mudrick Soraga, welcomed the Guest of Honor, His Excellency (H.E.) Dr. Hussein Ali Mwinyi, President of Zanzibar, and Chairman of the Revolutionary Council to officiate opening of the workshop.

H.E Dr. Mwinyi pointed out that REPOA and CRDB, the core organizers share common aspirations and offer an exemplary partnership that has impact to Tanzania. Zanzibar is a destination of choice for many based on the unique position geographically and unique features

and cultures dating historically. REPOA has been working in Zanzibar with ministries in building research capacity and policy development and such collective efforts in research are needed to boost economic growth. H.E. Dr. Mwinyi highlighted the theme for this year is in line with development agendas for both governments, stating that it is 'the right theme at the right time' for three main reasons:

#### Trade & Investment

• Specifically for Zanzibar trade and investment initiative seek potential investors in the Blue Economy focusing on fisheries, tourism, oil and gas, marine trade and transportly;



#### Incentives

• ICT, social services, investment, trade and manufacturing are also a focus with incentives available coupled with increases in efficiency of Zanzibar Investment Promotion Authority (ZIPA);

#### **Development Plan**

• Zanzibar's Development Plan 2021 – 2026 (ZADEP) also focuses on promoting investment and trade echoing the thrust of this workshop as it relates to the strategic plans of both governments.



Guest of Honour and President of the Revolutionary Government of Zanzibar, Dr. Hussein Ali Mwinyi officiating the workshop.

H.E Dr. Mwinyi pointed out that in Zanzibar, climate change reduces yields and agriculture capacity, reducing outputs of seaweed and amount of fish catches. Also, trade affects greenhouse emissions, production, distribution, exploitation of natural resources (timber, oil, mining) with linkages on development of trade. To conclude, he called for reduced emissions by investing in new lower carbon technologies so that volume of trade can be increased while reducing green gas emissions. With this emphasis, H.E Dr. Mwinyi officially declared the 26th ARW opened.



## **Keynote Presentation**

Resources Management Division, UNECA highlighting

The keynote presentation titled "Climate Friendly recommendations on how Tanzania can build up to climate Trade" was delivered virtually by Jean Paul Adam, friendly trade. Although Tanzania ranks similar to most Director of Technology, Climate Change and Natural African countries in vulnerability to climate change as well as adaptation financing needs:

- Has a comparative advantage in agriculture;
- Serving as a key producer of food on the continent;

# Tanzania

- Presents an opportunity for Tanzania to leverage agriculture sector's potential multiplier effect for other sectors in adapting to climate change;
- Time to move from export of raw materials to value addition.

Although all African countries suffer from low domestic value addition, focusing on promoting and enhancing value addition can create jobs and accelerate growth. Specifically, the transformative potential impact of the AfCTA presents an opportunity to multiply agriculture, industry, services, energy and mining. With this, the expectation is to see more value addition, which in turn is good for jobs and opportunities for trade and climate resilience. With increased intra Africa trade, the expectation is to see more climate resilience with decrease in travel distances (closer to resources).

Findings from a study on delivering a green economy from four countries, Egypt, Kenya, South Africa and Democratic Republic of Congo (DRC) emphasize the prospects of high

returns on investment and job creation in green sectors particularly energy. Further, nature-based sectors and agriculture had good return on investment using tools such as seed swapping to more climate change resilient varieties in Kenya, to agroforestry (cocoa) in DRC and mangroves restoration in South Africa. The key building block however, is energy. Reliable, predictable, affordable access to energy is fundamental for development and trade. The availability of renewable energy to power trade is a huge investment opportunity for Africa and presents the most logical and feasible path towards a 'just' energy transition. The pillars for delivering a just transition include financing, regional integrations, predictable policy frameworks and technology.



Director of Technology, Climate Change & Natural Resources Management at the UNECA, Jean-Paul Adam delivering his address online as a Keynote Speaker to the 26th Annual Research Workshop.

With respect to Zanzibar's focus on the Blue Economy, three-pillar nature-based solutions for sustainable trade and an ocean-based economy can be adopted comprising of:

Stopping biodiversity loss by 30% of protected marine areas, ecotourism;

Promoting health of mangroves, opportunity to generate wealth in carbon markets as mangroves are under threat and they are key in climate change in Tanzania due to weather. Also, blue carbon potentials associated with mangroves (can absorb more than rainforest);

Regenerative BE – stewardship by local communities, job creation is key.

To finance the three-pillar solutions for sustainable trade, blue bonds and Debt-for-Nature Swap can serve as important tools. The issuing of blue bonds should be guided by principles to include the private sector, value chains, coastal communities, and renewable energy for communities in Marine Protected Areas (MPA) to enhance

protection of resources without reducing fishing efforts. If done correctly, this creates a multiplier effect. Important to note is that blue bonds can be issued at sub-national, national and regional levels.

Concluding, the following key recommendations were presented as options to bring Africa up to speed:

Issue green and blue bonds, and establish a liquidity and sustainability facility to support issuance of bonds. This will also require developing a debt facility centered on performance indicators for issuance of green/blue bonds;

Invest in carbon credits for job creation and alternative livelihoods to unlock Africa's natural capital;

Invest in digital infrastructure as a trade accelerator ie. Extension of National ICT Broadband;

Reduce dependence on public resources to addressing the finance gap (Africa has lowest share of private sector funding for climate resilience);

Promote Debt for Nature swaps – savings from cancellation of debt to be reinvested in value chains.

After the keynote presentation, Prof. Bertha Koda, Member of REPOA delivered a short vote of thanks, appreciating H.E Dr. Mwinyi's presence, and offered REPOA's continued support to research, capacity building and policy making process to the government in Zanzibar. Also, Prof. Koda expressed REPOA's commitment to provide an effective follow-up on the recommendations and direction provided in this dialogue.



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## **Thematic Discussion Sessions**

#### Theme 1: I. Reflections on the Keynote Address

Reflections on the keynote address was chaired by Amour Hamil Bakari, Principal Secretary Ministry of Trade and Industrial Development, Zanzibar and included 2 discussants: H.E. Manfredo Fanti, Ambassador of the EU to Tanzania and Ms. Santina Benson, CEO, CEORt.



Ambassador of the EU Delegation to Tanzania, H.E. Manfredo Fanti (left) offers his reflections to the keynote address.

The discussants acknowledged that the private sector needs to be a part of the climate friendly trade discourse for learning and adaptation. Further, private sector players are on different points in the low carbon pathway. In addition, discussants noted that there are international markets in the EU, for example, that offer opportunities for Tanzania's journey to climate friendly trade. From the discussion, the follow two key takeaways emerged:

#### Takeaway no. 1: Without access to finance the journey to green climate transformation will be challenging

There is a disconnect between how to adapt to climate friendly initiatives and access to finance. With a USD 500bn needed to drive renewable energy investment, Africa is only receiving 2% of that. There is urgent need to realign with what is currently available and look for available options

within the Tanzanian context. Further, access to finance remains a challenge to Small and Medium Enterprises (SMEs) adding barriers to climate friendly initiatives at the local level. The following recommendations were made:

Incentivize Development Partners (DPs) such as the EU to partner with financial institutions to provide funds for SMEs;

Work with major financial institutions in Tanzania to improve access to SMEs credit;

Establish a system of guarantee for SME;

Establish a system of guarantee for SME;

There are opportunities for markets in EU: make agro food processing in Tanzania align with foreign markets to meet standards. Certification has to be done locally.

#### Takeaway no. 2:

Climate friendly trade requires collective responsibility and must **bring the Private Sector on board** with information sharing and learning

The private sector is a key player in the climate friendly trade discussion and should be engaged in all sector dialogues. There is a willingness from the private sector to move forward but there are challenges. The policy

and legal frameworks often present challenges to private sector coming on board. The big question is how does the private sector come to the table earlier in discussions? The following recommendations were provided:

Promote the spirit of collaboration between public and private so that information is shared timely and private sector can be part of the energy transition journey i.e. when carbon guidelines come out;

Need to work in synergies and not in silos, bringing private sector in the conversation from the start i.e. Breweries project using smart agriculture – bringing MoA and MoICT with private sector;

Develop policy environment that is less punitive (in fiscal and administrative aspects) but more incentivizing – need to promote renewable energy

Encourage communications and awareness of climate friendly initiatives in the private sector to help filter information down to citizens; 'to make the right decisions, we need the right information';

Take affirmative action to engage private sector by adapting enterprises to reflect the changed environment and use associations of different categories in the private sector as centres to collect and provide information.

#### Theme 2:

#### II. Financing Green Trade: Enablers, constraints and how to overcome them

The session was chaired by Mr. Ali Gugu, Deputy Permanent Secretary, Ministry of Investment, Industry and Trade (Union Government) with a panel presentation from CRBD's Kenneth Kasigila and 2 panelists, Dr Seyid Seif: Zanzibar Investment Promotion Authority (ZIPA) and Dr. Anthony Mveyange, Partnership for African Social and Governance Research (PASGR). The presentation set the

scene, illustrating CRDB's Green Climate Fund accreditation journey which took two years and received accreditation in 2019, shorter than the average 4-5 yrs. Agriculture lending is the primary focus in the USD 200m Climate Adaptation Technology Deployment Programme estimating to reach 1.2 farmers as direct beneficiaries. There will also be capacity building funds as well as policy intervention support.



Dr. Antony Mveyange, Executive Director of the Partnership for African Social & Governance Research (PASGR) making his contribution at the parallel session.

CRDB is calling for more concept notes and proposals from public and private sector stressing the need to align proposals with broader country development agenda. Two key takeaways emerged:

#### Takeaway no. 1:

Focus on the domestic environment by putting in place good foundations and the right policies and regulatory frameworks

needs to examine its readiness in this area and ask, 'are we ready as a country'? The policy and legal environment and frameworks are key, as well as the human capital and

To deliver on financing green trade, Tanzania as a country infrastructure. These are all enablers to financing green trade. In addition, managing politics and geopolitics must be considered. As such, the following were recomended:

Ensure stable and friendly institutions to support change. With this, focus should be given to understanding the political economy backed up by political will;

Invest in technology and innovation especially with the youth population preparing them to tap into opportunities resulting from financing green growth;

Strategically develop markets, systems and institutions focusing on green trade and green arowth;

Prioritize eco-friendly infrastructure;

Encourage Tanzanian or African philanthropists to localize local resources- reduce the dependency syndrome mindset.

# Takeaway no. 2: Increase understanding of supply and demand side constraints for improved financing of green trade

Constraints to financing green trade have multiple dimensions including supply and demand side barriers. Panelists noted that green finance is forward looking and there are constraints such as conditions placed including collateral that can be seen as supply side. However, there are also demand side barriers such as farmers' willingness to engage in this formalized architecture such as that offered by CRDB and incur transactional charges. This begs the question, do small businesses and farmers think and operate in the same way as financial institutions? Land ownership can also pose as a constraint and needs to be better understood. The following first set of recommendations were made:

Design financial institutions lending ambitions to suite their local communities, looking at Bangladesh example of such a model;

A model may include an institutional arrangement where farmers taking loans will get insurance against risks related to climate change events;

Contextualize local specificities and look at local innovation from community level - Need collective thinking that puts Tanzanians at the centre and the focus of conversations;

Promote capital markets for green growth and institute the offering of blue and green bonds;

Improve understanding of the complexity of land ownership in Tanzania to mitigate the binding effects of land as a demand-side constraint.

The following second set of recommendations were made:

Investigate motivation for small businesses vs financial institutions to align needs and services offered;

Undertake awareness raising at the village/community level and have information sharing sessions but also ensure a gendered lens is used to understand dynamics facing women;

Need for evidence and data to show climate change especially to the population as a whole, with a particular focus on smallholder farmers;

Prioritise research in spice sector for economic growth and at the same time reducing the use of wood – mangroves, cutting of mango trees – need financing on new technology;

Work on the continent level to reform the global financing architecture. Of the 11bn USD committed to climate change finance, 99% goes to the rest of the world, Africa gets 1%.

#### Theme 3:

#### III. Leveraging Jobs, informality, and natural resources for Competitive Green Growth

The session was chaired by Hon. Suleiman Masoud Makame, Minister responsible for the Blue Economy and Fisheries in Zanzibar and had three panelists, Dr. Lucy Ssendi, REPOA Senior Research Fellow; Dr Estella Ngoma Hassan, State University Zanzibar; and Brig. Gen, Seif Khamis, General Manager, Mzinga Corporation, addressing the question of

how to leverage labour, informality, and natural resources to spur the growth of a competitive green economy. Panelists commented on how climate smart agriculture can contribute to decent rural jobs but warned to be cognizant of the gendered dimensions in the agriculture sector.



Panelists attentively listening to members of the floor as they field questions.

Also, the importance of looking at different models offered by non-traditional 'green' sectors provides valuable contribution. The following 2 key take homes came out of this panel:

#### Takeaway no. 1:Leverage agriculture sector to create jobs, improve productivity and incomes

Agriculture and its dominance in Tanzania continue to provide ripe ground in the journey towards green growth. This is particularly the case in the adoption of climate smart agriculture. Although agriculture investments are considered to be risky due to climatic variability, the adoption of innovative production methods through climate smart

agriculture has the potential to reduce risk, increase output, and create employment opportunities. Further, the nature of agricultural sector employment allows the exploitation of gendered dimensions by allowing opportunities to women who wish to both work and offer caregiving.

The following areas were recommended for policy consideration:

Technology and practices, climate information sourcing and climate-sensitive planning can create technical jobs;

Jobs in crop production will depend on agro ecological zones and can be in the following categories:

- Variety selection and planting materials -site selection, slope and type of land, water availability,
- Land preparations (manual or mechanized),
- Soil management rotation, intercropping, soil erosion, nursery practices, field planning, right spacing, time of planting, fertilizer application, water management which type of water supplement can be used,
- Crop maintenance- integrated pest management, harvest management and procedures,
- Post-harvest handling storage, transport, marketing and irrigation.

Consider a social component particularly targeting women and youth;

Encourage young people to be in agriculture. This requires a better understanding on how to use the sector as catalyst for youth in policy making space. Lessons can be drawn from the World Bank and United Nations project in 3 cities, Beira, Maputo, and Lagos to shed insights as to how other countries are navigating this space.

#### Takeaway no. 2:

Focus on research and designing alternative models to promote green economy

Panelists agreed that Tanzania's priority in responding to climate change is adaptation with food security and resilience being focus areas and that the way forward for climate change is Climate Smart Agriculture (CSA). For better understanding, research is key to working on different models based on the specific agro ecosystem. Learning from the military/defense Mzinga model, where they use their location and experience to design and produce various food processing machinery, distributing

to SMEs in convenient manner that can be managed by low-income earners. Also, they assist SMEs to acquire machinery allowing them to pay in installments that includes10% down payment, and subsequent payments made according to how they manage their businesses. Further, providing capacity building and creating local assurance for banks through "jeshi la akiba"-a repository of skilled youth originally trained by Mzinga which can be mobilised to raise collateral and train others.

With this discussion, the following were the first set of recommendations:

Use different models, for example, military discipline, ethics, infrastructure and knowledge to push greening the environment and jobs;

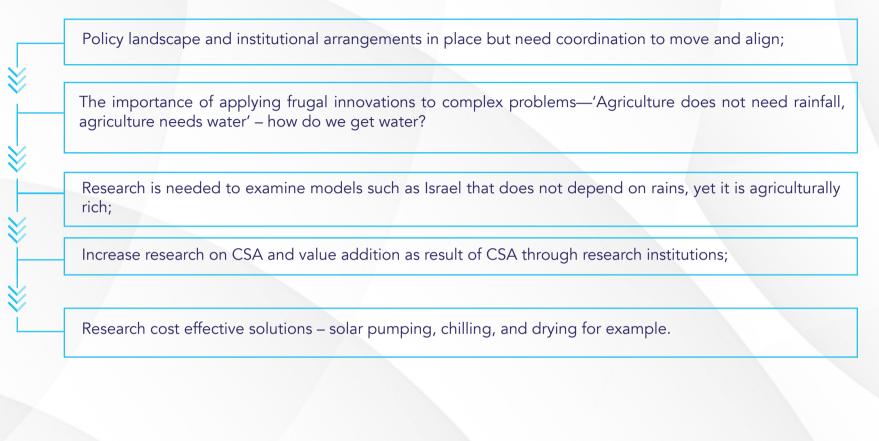
Use nontraditional 'green' sectors to leverage jobs for green growth;

Tap potential of other institutions like Mzinga, nontraditional 'green' spaces and partner with institutions such as SIDO Zanzibar;

Need for an integrated dashboard that captures all the different greening initiatives in the country covering all sectors: 1st Vice President (VP) office and Vice President's Office (VPO) coordinating mechanisms in Zanzibar and mainland- to have strategy in place to map and monitor actions of all sectors;

Climate change is relatively new phenomena, institutional arrangements not ideal but working towards centralizing and coordinating information.

The following areas were recommended for policy consideration:





## Memorandum of Understanding for Collaboration

During this event there was also a ceremonious signing of a Memorandum of Understanding (MOU) between REPOA and Partnership for African Social and Governance Research (PASGR). PASGR is an independent, non-partisan pan-African not-for-profit organisation established in 2011 and located in Nairobi, Kenya. Currently engaged in more than 12 African countries, PASGR works to enhance research excellence in governance and public policy that contributes to the overall wellbeing of women and men. It partners with individual academics and researchers, higher education institutions, research think tanks, civil society

organisations, business, and policy communities both in the region and internationally.

This new partnership will build on synergies as both REPOA and PASGR work in complementary spaces and present an opportunity for Tanzania to see the world through the eyes of research and capacity building in public policy analysis and good governance from a regional perspective. The MoU will see both organizations work together to enhance research excellence for policy and governance in Africa.



REPOA's Executive Director, Dr. Donald Mmari (right) and PASGR Executive Director, Dr. Antony Mveyange exchanging signed documents following a signed agreement aimed at enhancing capacity building efforts on research.







# 26<sup>TH</sup> ANNUAL RESEARCH WORKSHOP Adapting trade to climate change for competitive green growth



## **Parallel sessions**

Over the course of the two days, there were parallel breakout sessions dedicated to specific thematic areas, where research formed the basis for discussions and critical inputs for policy. The table below presents highlights from each session, summarizing key findings and recommendations. Details of presenters for each session can be found in the workshop agenda annexed to this report.

Day 1: Parallel Panel I	Day 1: Parallel Panel II	Day 1: Parallel Panel III
I. Trade potentials in a Greening Economy	II. Financing of Green Economic Development	III. Institutional Facilitation of a Green Economy
On strengthening the capacity for effective implementation of export competitiveness and diversification policies in Tanzania, stress was placed on building realistic model to enhance productivity in agriculture and trade with examples provided from the gravity model. Productivity enhancement has resulted in the progressive reduction in of production costs, hence creating a competitive business environment at that level. However, the export market is mainly Asia, Europe US and Africa with fixed costs in transportation that do not effectively contribute to effective export competitiveness and diversification. Lower costs in production are not being accompanied by lower transport costs. In examining the post Covid-19 pandemic outlook on Tanzanian rice trade: opportunities and pitfalls, the field research revealed a rise in staple food produced by small scale farmers as a result productivity growth and agro- processing. This has resulted in a progressive entry into the export market with Uganda, Kenya, and Rwanda as biggest importers followed by India, Belgium, and USA. Though commercial production of rice is of high quality compared to others, but when exported to EU and US the rice does not meet quality standards due to its brokerage into small pieces. It was stated that for effective export to global markets farmers do not have information on the required EU and USA (export) market quality standards for rice.	Regarding the Blue Economy in Zanzibar, tourism was noted to be a key economic activity in employment, revenue, and GDP growth with a rebound after Covid-19 with the sector employing approximately 35,000 direct and 70,000 indirect jobs mostly in hotel industry. 25% of island population is supported by fisheries. Oil and gas is an emerging sectors at the stage of exploration. It currently depends on electricity from the mainland and importation of fossil fuels and over 70% of total energy consumption being biomass. While there are several policies, regulations, and institutional framework developments to develop sector, there is long way to go before realizing benefits from this sector with big gap in human resources and technology. Zanzibar also has about 400 unofficial ports which makes its borders porous, and this has implications for government revenue. There is a stand-alone Ministry responsible for BE focusing on conservation of marine and coastal ecosystems which are the key pillars for sustainable BE. There is a need for significant investments, including through PPPs for storage facilities and technologies. With declining aid flows, rising public debt, innovative models are needed, such as blended finance, blue bonds, social and development impact bonds, crowdsourcing as well as diaspora funding.	Examining the regulatory reforms on the cost of doing business, analysis show that Tanzanian enterprises are overtaxed and overregulated, urging to critically analyze the Blueprint for Regulatory Reforms to Improve the Business Environment (2018) to overcome the remaining challenges. For example, the recently launched nationa trade portal (see https://trade.tanzania.go.tz/) which, while informative, has faced operational challenges. Also, the one stop centre is not performing sufficiently in minimizing time and bureaucracy for speeding up regulatory compliance. It was acknowledged that the efforts made on establishing one stop center, but the challenge remains on the government personnel being slower in the processes due to low level of commitment, but it appears no actions are taken on their performance. Specifically looking at impact on hotel industry in Zanzibar compliance cost with regulations is quite high with each hotel spending 45 hours annually with compliance issues revealing lots of time wasted, financial loss of TZS 3.1bn and overall loss of efficiency.

	A presentation titled "Blue Economy in Zanzibar: potentials, opportunities and challenges" highlighted that Zanzibar is a unique brand and the BE is a nascent sector receiving significant attention backed by political will and to be used to accelerate sustainable development. Zanzibar has a comparative advantage in terms of geography, population, weather but to translate this to competitive advantage and to realize value and aspirations for inclusive growth and sustainable development, there is need to examine strengths and weaknesses and to undertake a comprehensive situational analysis. This analysis should look at internal and external factors, emerging competition in the market, international media ratings and investment/financing as well as accountability from the public. There should also be a logical sequential order in transforming the sector.	regional peers of Kenya, Uganda, and Rwanda. Growth from 2002-2012 in Tanzania (and beyond possibly in the last decade) can be explained by structural change, illustrated in a change from 85 to 65 per cent employed in agriculture (from 2002 to 2020) and an increase in the non-agricultural employment share. Most of this growth in employment is in the informal sector (89%), with a strong change in female participation in the labor force, from 67 to 80 per cent from 2000 to 2019. Research revealed presence of gap from industry and academic
<ul> <li>Recommendations:</li> <li>Urgent need to build and strengthen intra Africa trade, including through AfCTA in addition to international markets.</li> <li>Build a conducive framework for access to finance for small scale farmers.</li> <li>Sharpen clarity on CC impacts and framework via information and related capacity building.</li> <li>Sharpen capacity building interventions for effective exportation including comprehensive coverage of market access standards and requirements (to ensure farmers are aware of standards).</li> <li>Sharpen interventions in agro-processing, renewable energy, and logistics.</li> <li>Sharpen the frequency of updating information on government policy reviews and subsequent dissemination to beneficiaries – communicate to commercial farmers regularly.</li> </ul>	<ul> <li>Recommendations:</li> <li>Social inclusion: within structure of BE should allow for inputs from the ground to be done at this point where things are in development before things are in place – need stakeholder involvement. Also, a sector such as seaweed farming, processing need to have gendered considerations especially because women are dominant in seaweed farming-i.e., inclusive growth is fundamental.</li> <li>Prioritize key areas in BE not all (suggest having 5 priorities): Too many areas and not unique – while Zanzibar have a pristine marine environment, major historical sites with pristine waters. All options require protected marine environment, industry and activity depending on clearly functioning natural environment, therefore priority should be to ensure that the environment remains pristine.</li> </ul>	<ul> <li>of doing business:</li> <li>Use online platform in registration – but avoid rent seeking activities.</li> <li>Make compliant cost assessment a mandatory</li> <li>Establish one stop shop for all payments. – now paying 31 different payments to different agencies</li> <li>Coordinate different regulatory agencies.</li> </ul>

	<ul> <li>Curriculum development – is it moving along with BE – skills-based curriculum needed.</li> <li>Innovation: look at alternative financing options utilizing PPP</li> <li>BE should not endanger the ecosystem around us, environmental protection is important and here law enforcement is key.</li> <li>Policy, legal and regulatory frameworks must be in place to support.</li> <li>Need reliable source of energy</li> </ul>	<ul> <li>Increase government commitment to reforms.</li> <li>Improve institutional quality, transparency, accountability, need further reforms at improving business climate.</li> </ul>
Day 2: Parallel Panel I	Day 2: Parallel Panel II	Day 2: Parallel Panel III
IV. Parallel Session I: Climate Change Resilience in FYDP III	V. Innovation and Technology as Enablers of Productivity And Competitiveness	VI. Green Transformation and Food Security
Research reveals that some farmers understand climate change, while others are unaware of climate change but need to know what information farmers need to assure adaptation to climate change is taking place. Despite abundant water resources in Tanzania, farmers still depend on rain for irrigation. Yet the experiences reveal temporal water scarcity exacerbated by climate change impacts. Advised to introduce water management by installing timer in places such as hotels for controlling water consumption.	The ability of firms to increase their productivity while upgrading their technological and innovation capacity is regarded as an important determinant of competitiveness. Being an important determinant of national economic competitiveness, economists propose an economic development model that sees countries move from being factor-driven (whereby countries compete based on unskilled labor and natural resources) to investment-driven (whereby countries attract more FDI to bring in technology and create spillover effect) to innovation-driven (economies are based on knowledge and innovations activities.). As a result of having dedicated R&D in place, innovation will bring new or significantly improved products (goods or services) or processes, a new marketing method, or a new organizational method in business practices, workplace organization or external relations. This will help provide understanding of why some countries excel economically while other continue to be poor.	In presenting farmers integrated agricultural marketing for productivity and competitiveness in Tanzania, research from Mwanza, Tabora, Mtwara, Kilimanjaro and Ruvuma revealed need for digital transformation and possibility for crafting models moving away from manual systems and this can help move away from using middlemen. One such system is the warehouse receipt systems implemented through Agricultural Marketing Co-operative Societies (AMCOS) to harness strength, address challenges. However, AMCOS were not adaptive, so not friendly to small holder farmers. Also, the AMCOS has negative perception on performance expectancy and compatibility, accountability, and transparency – cooperatives' leadership is reluctant to fully embrace digital changes due to historical formation of cooperations.

In the market place the firms practice either the 'red ocean' strategy where many players are competing with similar goods and where their chance to survive is uncertain. Others, with strong dedicated R&D practice 'blue ocean' strategy in which firms have few or no competitors in the market. To conclude, cross-country learning for knowledge diffusion is highly encouraged.

A presentation titled "Examining agricultural export intermediation, institutional quality, and export performance in Tanzania: a catalyst for agricultural transformation" showed that agricultural exports are important in early stages of economic development by generating employment, income and foreign currency (positive externalities). Tanzania is experiencing low export performance in global markets due to various factors, including information asymmetry, high cost of conducting business, failure to meet international quality standards, low competitiveness. These are attributed to geography, infrastructure, and policy frameworks. Government efficiency does not seem to have much effect; however, regulatory guality is a concern. Also, weak institutions (rule of law) in destination countries reduces exports from Tanzania and institutional distance from Tanzania to destination country matters (the more the distance the less the exports) and could be caused by asymmetry in information. Export spillovers may be related to knowledge transfers by foreign firms, export intermediaries are vital as their influence increases domestic direct exports.

Looking at agricultural commodity price changes, food security and households' welfare in Tanzania, prices have been volatile and uncertain. Government initiatives to cushion the uncertainty i.e., imposition on Non-Tariff Barrier (NTB) on cereal crops, export bans of cereal crops but this undermines functioning of markets in long run as well as impacting employment in the sector. With AfCTA, there is a move to increase intra Africa trading, reducing NTBs. However, there is a 'timers dilemma': higher prices for farmers increases incomes for farmers but increases costs for household buying food, yet if prices are low, this discourages farmers and may reduce supply of food. Welfare gain is observed when farmers obtain higher prices for their produce. Lower prices of agriculture produce tends to reduce the welfare gains of the agriculture households. Therefore, lower prices are not the desired choice of the household.

#### **Recommendations:**

- Must involve communities at all levels in all interventions and plans in climate change for sustainable strategies.
- Maize farmers more willing to adopt new technologies
   than rice farmers need more strategies and incentives to uptake new technologies and improve market strategies for high quality rice.
- Use knowledge and understanding of climate change to tackle climate change in ecological zones.
- Learn from other communities i.e., the Maasai on how they are tackling water governance and upscale it to other semi-arid areas for resilience.

### **Recommendations:**

- Need to polish our research to become demanddriven to serve the current need to avoid developing prototype technologies that are already obsolete.
- To set a national mechanism of coordination between the government, research institutes, academia, and SMEs to enable the deployment of research findings to enhance firm's and country's competitiveness.
- The government and private sector should increase their respective budgets to strengthen the effort of R&D.

### **Recommendations:**

- Policy level, influence, and advance cooperatives to consider digital changes, capacity building initiatives to government and other influential stakeholders, increase awareness, extension services/officers to be used for increased reach.
- Consider introducing element of pricing in future analysis.
- Further analyze the regulatory frameworks on mainland and Zanzibar
- Industrialization based on value addition in agriculture, future studies may need to separate between raw and processed exports and see the price differences. This will add to policy recommendations, may need to push for industrialization for processing and not just for raw materials.
- Awareness creation is needed farmers consume what they produce and do not save and make investment from the profit margins from production, need skills of risk mitigation and management.
- Balance between export and internal food security ensuring enough in placed in storage for the country especially in the context of CC





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### Reflections, emerging issues, recommendations & the way forward

Dr. Donald Mmari and Prof. Samuel Wangwe provided a summation of deliberations, highlighting big picture emerging themes. The overall conclusion is that climate change is a long-term issue and needs a long-term view of strategies to its impacts on trade for competitive

green growth. Policies must speak to each other, be aligned, coherent and consistent for not less than 20-30 years. This insistence on 'long-termism' is critical to have competitive inclusive economy that leaves no one behind and sustainable.

The following reflections were highlighted:

	Need to understand the intersection and linkages between trade, climate change, technology, competitiveness, value addition, industrialization, and environment – and consider all these factors as a 'package deal';
	Trade is dynamic, it changes, it is not static and thus it is important to understand patterns, products and markets;
	<i>Focus on knowledge</i> - what is required and preparations to meet those requirements ie. Transport costs are high – but AfDB and AU already starting to work on this by creating transport corridors across the continent;
	Market intelligence: understand what the world wants, demand and quality patterns;
¥	Behavioral change to be consistent to CC adaptation and mitigation – need incentives to be in place to balance regulations;
¥ ×	<i>Investment climate:</i> improve business environment particularly the link between trade, technology adoption, adaptation, competitiveness, value addition etc. Private investment is key – this impacts job creation;
	Information and awareness raising about climate change is key: ie. Agribusiness – moving up the value chain. Need capacity building also in standards and awareness and updating information regularly;
* 	Need aligned institutional frameworks to ensure all stakeholders are playing as a team (state, districts, LGA, communities, cooperatives, private sector). Need tripartite arrangements (public, private and communities) to be pulling in the same direction;
	Climate friendly trade is a huge area with huge agenda and policy responses need to <i>prioritize key areas</i> but keeping in mind interdependence across the board and institutional framework needed. Also, institutional arrangements to manage quality and standards are needed.



## **Closing session**

Mr. Olav Lundstol, Councellor and Country Economist at the Embassy of Norway representing DPs offered closing remarks to the 2-day event applauding the ARW for growing stronger with this year's illustrating excellent endorsement from highest political level in Zanzibar coupled with in depth technical discussions rich in information and critical inputs into policy. Norway appreciates the long-standing partnership with REPOA, appreciating the evolving nature of engagement over time, offering a mix between core funding and thematic focus in areas such as petroleum governance and food security. He recommended that REPOA and other research institutions should be in the driving seat for informing the agenda setting for national and regional development.



REPOA's Executive Director, Dr. Donald Mmari speaking before Dr. Olav Lundstol, the Councellor and Country Economist at the Embassy of Norway (right) and the Ag. Permanent Secretary at the Ministry of Investment, Industry & Trade (Union), Mr. Ally Gugu to close.

Looking at Tanzania's development path Tanzania has delivered high economic growth on average over the last two decades. It has also delivered progress on education, health and livelihood and other indices, however in particular in the last decade, the poverty, nutrition and several human capital and development elasticities (effects) of growth have been low. Transformation is also made difficult by continuing (and increasing) high population growth that is extending high ratios of dependency and making the regular mechanisms related to reaping the demographic dividend in development difficult.

The rise of more capital-intensive sectors and projects with lower employment and equity spill-over and multiplier effects of development is, however, affecting the rate of growth. This signals the need to look at the role of trade and the influence of climate change, and emerging pressures, challenges, and opportunities of competitiveness of green growth as trade offers opportunities for Tanzania despite the low share of exports and imports compared to economies at similar levels of development. Exports continue to be dominated by natural resources (mining and agriculture) but is important to distinguish and connect between domestic, intra-regional and extra-regional trade in terms of current situation and outlook. There is a case for increased intra-regional trade – has higher tech level of

goods and can diversify industries.

Looking ahead, the Liquified Natural Gas (LNG) project, with current world market prices, both most spot and fixed contracts, the projected production levels in Tanzania once on stream with full capacity of the anticipated LNG production facilities could dwarf any other export now and for decades to come. Similarly, the domestic revenue potential would be large. However, this is not sustainable and not a solution to climate change but rather offers a good transition solution once mixed with other solutions i.e., alternative cooking (charcoal and firewood) to reduce GHGs.

Mr. Ali Gugu, Ag. Permanent Secretary, Ministry of Investment, Industry and Trade (Union) officially closed the 26th Annual Research Workshop thanking the Revolutionary Government of Zanzibar, REPOA and the sister ZMTID in Zanzibar stating that this year's theme will be used to inform alignment to the FYDP III on promoting investment, industrial development, and trade in the country. Also, lessons and recommendations will be used leading to further development of AfCTA continental framework, including knowledge on climate smart agriculture, export, markets, and innovation.



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