



REPORT ON THE PROCEEDINGS OF IPSTC RESEARCH AGENDA WORKSHOP 2018

Maritime Disaster Response and Management



27 April, 2018 | Karen, Westwood Park Road | Nairobi, Kenya

*“Enhancing Capacity for Maritime and Infrastructure Disaster Response
and Management”*



REPORT ON THE PROCEEDINGS OF 2018 IPSTC RESEARCH SYMPOSIUM
Maritime Disaster Response and Management

04 October, 2018 | IPSTC | Karen, Westwood Park Road | Nairobi, Kenya

IPSTC Peace and Security Research Department

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“Enhancing Capacity for Maritime and Infrastructure Disaster Response and Management”

Compiled by

IPSTC Peace and Security Research Department

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1.Executive Summary

The International Peace Support Training Centre (IPSTC) held a Research Agenda development workshop on the 27th of April 2018. The goal of the event was to provide the audience with a set of proposed topics developed by IPSTC researchers for field and desktop research on enhancing capacity for maritime and infrastructure disaster response and management. This was the main focus within the IPSTC's research agenda and training in a broad spectrum of peace and security and Peace Support Operations (PSO) topics in particular.

The research topics presented were reviewed by a panel of distinguished discussants as well as invited guests. Recommendations were made for improving the research topics and output, and on future research topics that would inform the 2018 research agenda. The workshop was a one day event that produced substantive observations, suggestions, critique and new insights that will be valuable to making the research agenda more focused and rigorous. This report documents the activities of the Workshop.

The mission of the International Peace Support Training Centre (IPSTC) is to be an independent applied research, training and education centre in Eastern Africa that is responsive to peace operations training and education needs of the African Peace and Security Architecture (APSA). The research conducted at IPSTC covers a broad spectrum of issues on conflict prevention, conflict management and post conflict reconstruction.

Each year, IPSTC focuses on a specific Research Agenda thematic area that will not only inform but also enhance the promotion of peace, security and stability in eastern Africa and Africa as a whole. The research agenda theme for 2018 is *“Enhancing Capacity for Maritime and Infrastructure Disaster Response and Management”*.



IPSTC Researchers: Dr. Njambi (L), Col. Nduwimana (second left), Mr Mbugua (C) and the Moderator Prof. Gatara (Right, red tie)

2.The Workshop Concept

The International Peace Support Training Centre (IPSTC) is a training and research institution whose focus is capacity building at strategic, operational and tactical levels for peace operations within the context of the African Peace and Security Architecture (APSA). The research at IPSTC contributes to capacity building of Peace Support Operations (PSO) and responds to PSO needs in the region.

The Peace and Security Research Department (PSRD) at IPSTC, conducts research on peace and security issues in East Africa. The department has produced a number of Occasional Papers and Issue Briefs over the last 9 years. The publications focus on conflict prevention, conflict management and post-conflict recovery.

The Research Department of IPSTC undertakes research for two main purposes:

1. Design of training curricula on peace support operations; and
2. Contribute to the debate on enhancement of regional peace and security.

Every year the PSRD begins its calendar by formulating an agenda to inform its activities as one of its key responses to emerging issues on conflict, peace and security in eastern Africa. The Research Agenda Workshop provides the space for that work. In 2017, the research agenda featured thematic areas related to women, peace and security, and understanding emerging conflict trends, dynamics and their response strategies and mechanisms.

The IPSTC workshop was organized to provide a forum for discussion of pertinent knowledge gaps in the research findings on the topics below:

- Gauging disaster management preparedness along Kenya's coastline
- Assessment of Maritime Domain Awareness in Kenya
- An Assessment of Kenya's Institutional Capacity for Disasters Management in Marine Protected Areas (MPAs)
- A Review of Institutional Capacity for Flood Disaster Risk Reduction in Narok and Nairobi Counties
- An Analysis of Humanitarian Response Coordination in Urban Centres: The Case of Nairobi City County
- Evaluating the Effectiveness of Multi-stakeholder Approach to Maritime Disaster Management in the Lake Victoria Basin
- Youth Participation in Disaster Management: The Case of Tana River County
- A Comparative Analysis of Maritime Disaster Risk Reduction Capacity in Kenya and Tanzania
- Community-Based Strategies in Maritime Disasters in Kenya's Coastal Counties
- Assessing the Effectiveness IGAD's Early Warning Systems Strategy in Disaster Management:
- A Comparative Study of Kenya and Uganda
- Evaluating Community Engagement in Maritime Disaster Management Strategies in Busia and Kisumu Counties

The research proposal was peer-reviewed by academic experts and relevant practitioners in order to ensure that it (research) was not only relevant and implementable, but also addressed the 2018 research agenda. The workshop aimed at:

- Guiding activities carried out by the Peace and Security Research Department(PSRD);
- Aligning the activities of the research department with the IPSTC strategic plan;
- Providing a structured response to the development partners' priorities;
- Providing a basis for evaluating the performance of the department;

- Providing a basis for the soliciting partners' and stakeholders' inputs in selecting priority areas of research focus; and
- Providing an opportunity for collaboration and networking.

2.1 Objectives of the Research Workshop

The workshop had the following objectives:

- To share IPSTC research priorities with participants;
- To provide an opportunity for participants to offer further input into the researched areas; and
- To provide an opportunity for collaboration and networking

2.2 Expected Outcome

The workshop was expected to have two major outcomes:

- Identify topics for field and desktop research
- Strengthen networks for collaboration and networking.

2.3 Participants

The Research Agenda workshop brought together distinguished representatives from different institutions of higher learning, regional economic establishments, regional think tanks, and non-governmental organisations.

2.4 Venue and Date

The workshop took place at the International Peace Support Training Centre, Westwood Park Road, Karen in Nairobi, Kenya on the 27th April 2018.

2.5 Methodology

Researchers based at the Peace and Security Research Department (PSRD) presented their topics for Field and Desktop Research. The topics were thereafter discussed by distinguished academic experts and participants present.

3. Publications by IPSTC

The Peace and Security Research Department is responsible for among other things, the production of applied research products related to peace and security policies in Eastern Africa. Applied Research is one of the major branches of the PSRD, which seeks to provide intellectual input to inform theory and practice through training and policy on peace and security.

The Centre has made considerable contribution in training and research on peace support issues in the Great Lakes region and the Horn of Africa through design of training curricula, field research and publication of Occasional Papers (OP), and most recently, the publication of the Africa Amani Journal.

Occasional papers are the Centre's main research products aimed at informing IPSTC training as well as policy on regional peace and security. The OPs consist of research papers developed by the Centre's researchers annually.

The Centre's Issue Briefs are short discussion papers, which are demand-led and aimed at shedding more light on contemporary peace and security issues in the region. The publications are based on secondary data.

The Africa Amani Journal, launched in December 2014, is informed by the strong desire of the IPSTC to share findings of peace and security research as a way of diversifying and improving the Centre's research products. The Journal is backed by the thematic research areas that the Centre continues to undertake.

The purpose of the journal is to report on critical research findings that continue to impact peace and security in the region. The journal also expands the Centre's horizons in sharing knowledge and best practices in peace and security. IPTSC seeks to ensure that the Journal will be the key medium for scholars in Africa to exchange cutting-edge knowhow on emerging peace and security trends and dynamics. The sharing of knowledge will boost the Centre's standards of research in peace and security.

The Centre also strongly encourages all relevant stakeholders in peace and security and those from related disciplines to contribute to the development of this crucial academic instrument.

4.Introductory Remarks



Lt Col Kiptoo
Head of Research Department

Lt. Col. Kiptoo began by welcoming all participants to the workshop. To start the workshop, he gave those present a quick overview of IPSTC with emphasis on the research department. As a way of introduction, he stated that the IPSTC was formed to serve regional peace and security training needs as stipulated by the African Peace and Security Architecture (APSA), which established the African Standby Force Concept. He explained that as a Training Centre, it was to provide training aimed at achieving the following among EASF member states:

- Doctrinal harmonization
- Inter-operability
- Regional Critical Mass of Peacekeepers
- Networking
- Enhanced capacity in Humanitarian Disaster Management

He stated that the IPSTC's mission was to conduct training and research to inform the military, police and civilian personnel in all aspects of peace support operations in order to improve the effectiveness of responses to complex emergencies. He explained that IPSTC comprises the Peace and Security Research Department (PSRD), the Peace and Conflict Studies School based in Karen, and the Humanitarian Peace Support School located at Embakasi. He explained that within the PSRD, there existed two sections: Applied Research and Curriculum Design. He expounded that within the Applied Research Section, the focus is on field and secondary data. The Curriculum Design Section designs, develops and evaluates the training. He also stated that the Applied Research Section seeks to provide intellectual input to inform theory and practice through training and policy on peace and security.

This is achieved through the following products:

- Occasional Papers
- Issue Briefs
- Africa Amani Journal
- Workshops and Symposia

He explained that occasional papers were the department's flagship product and being applied research products were aimed at informing the IPSTC training as well as policy on regional peace and security. He noted that the Issue Briefs were shorter discussion papers based on secondary data that were demanded and aimed at shedding more light on current peace and security issues in the region. Lt. Col. Kiptoo thereafter explained the workshops as mainly focus-group discussions, brainstorming on the initial research areas for the occasional papers and topical contemporary issues. The symposia were forums aimed at:

- Serving as a platform for dissemination of the results of the concluded research.
- Strengthening networks for collaboration with different organizations, institutions and partners in peace and security.
- Serving as a forum for the Research Department to identify possible research areas for the subsequent year.

He concluded by referring participants to the overarching theme of the Workshop which was, ***“Enhancing Capacity for Maritime and Infrastructure Disaster Response and Management”***, and observing that he hoped that the workshop would help enrich the Maritime Security course. He thanked all those present and proceeded to invite Cmdr. Masaki Nakagome to give his welcoming remarks.

5. Welcoming Remarks



Cmdr. Masaki Nakagome
Defence Attaché, Embassy of Japan to
Kenya, Uganda, Somalia, and Tanzania

Cmdr. Nakagome started by welcoming all those present at the workshop before introducing himself as a member of the Japan Maritime Self Defense Force. He explained that he was currently serving as the Japanese Defence Attache. He expressed gratitude for the opportunity to open the IPSTC Research Agenda Workshop and hoped that with the support of distinguished Professors in the academic field, the researchers at IPSTC would be able to have fruitful discussions in formulating research topics.

Thereafter, he mentioned that the Government of Japan was continuing with its commitment to enhance capacity for both maritime and infrastructure disaster response and management especially as an island nation prone to both earthquakes and tsunamis.

He added that the Government of Japan acknowledged the importance of putting policies and actionable measures in place to ensure that disaster risks are reduced as much as possible.

He explained that the effects of climate change, together with a number of other issues have made it necessary to proactively respond to managing the scale of disasters. To put it in context, he referred the participants to the earthquake and tsunami, which occurred in Fukushima in March 2011.

He emphasized that as a nation, Japan was able to reduce the loss of human life due to the early warning systems (such as the tsunami warnings) which, combined with constant emergency evacuation drills, empowered most citizens to get to safer grounds in good time. He added that this, together with the disaster management systems in place, enabled the authorities to provide temporary shelter, and life saving food, medication and support in a timely manner.

He elucidated that Japan was cognizant of the need to enhance the capacity for maritime response and management, and has made efforts such as providing the Kenya Naval police with rigid-inflatable boats (RIBs) and Rigid-hulled inflatable boats (RHIBs) to enable them to better patrol the territorial waters and prevent terrorism and other illegal incidents. He explained that these vessels would also enable them to respond more effectively in the event of a disaster or an emergency.

He added that through the Japan International Cooperation Agency (JICA), the Government of Japan had carried out projects throughout Africa, which aim at mitigating risk and building capacity in order to ensure food, water security, and improve infrastructure. Cmdr. Nakagome stressed that it was a great honor that the Government of Japan continued to support the research activities of the IPSTC and sincerely hoped that the research agenda workshop would prove beneficial, ultimately contributing to enhancing the region's DRR (Disaster Risk Reduction) capability. He opined that Japan has continued friendly relations with IPSTC would pave the way for enhanced capacity in the region.

He concluded by thanking the Director, Brig. Nderitu, and the staff of IPSTC for inviting him to open the Research Agenda Workshop.



Brig. Nderitu began by recognizing Cmdr. Masaki Nakagome the Japan Defence Attaché to Kenya, the discussants and all distinguished guests. He stated that he was very happy to welcome all participants to 2018's first Research Agenda Workshop. He explained that IPSTC would hold two research agenda workshops during the course of the year and elaborated that the second one would be held the following Friday. Brig Nderitu referred the participants to the theme of the Workshop, which was *"Enhancing Capacity for Maritime and Infrastructure Disaster Response and Management"*.

He proceeded to elaborate that the relevance of this theme was not in doubt and to underline its

importance, he reiterated the words of Howard Ruff who once remarked that, **"It was not raining when Noah built the ark"**.

He stated that no country is big enough or small enough not to be affected by disasters while noting that despite the relentless efforts that have been made to respond to and/or mitigate disasters, more could be done. He explained that according to scientific reports, globally, natural hazards have accounted for the loss of 1.2 million lives in the past two decades. In addition, the world continues to lose 70 billion US Dollars annually due to natural disasters. He stressed that the brunt of these effects impact more on poor countries, more so, those in the Eastern Africa region.

He outlined a recent multi-hazard risk index with a rating of up to 10, which depicts rates vulnerable regions as follows: Kenya 6.1, Somalia 9.2, Ethiopia 6.4, Uganda 5.9, Democratic Republic of Congo 7.0, Burundi 6.3, Rwanda 5.3 and Tanzania 5.7. To put this into perspective, he stated that Kenya annually loses USD 90.33 million to floods and USD 102.90 million to multi hazards, which are a combination of both natural and man-made disasters. Examples include drought, floods, terrorism, traffic accidents, oil spills, industrial accidents, drug abuse, and infrastructure collapse, amongst others.

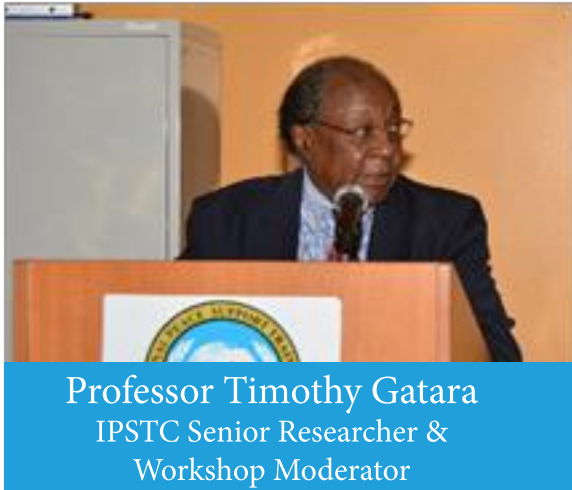
He stressed that the trends of disaster risk continue worsening especially in Kenya giving the example of the current rains, which have brought untold suffering to humanity, the worst affected areas being the Lake Victoria Basin, Kano Plains, Tana River, Turkana, Samburu and Eastern Kenya. He added that the trend has also seen the flooding of urban centres like Nairobi and Narok where lives have been lost and property destroyed. He also noted that the rain has affected negatively on accessibility and availability of food, which in turn has led to degradation of the ecosystem and decreased availability of safe and clean drinking water.

Brig. Nderitu mentioned that the 21st Century has been dubbed the **"Century of the Oceans"**, emphasizing that oceans had become increasingly important to the development and security of all countries. He lamented that this key resource is in danger of disasters. He elucidated that the global sea levels have continued to rise at about 3 – 5 millimetres per year and as a result, low-lying coastal areas have increasingly been inundated or affected by extreme weather and rise in sea levels leading to devastating consequences.

He observed that the need for disaster risk reduction as well as management was more pressing than ever before and people need to be informed about the risks and how they can reduce vulnerability. He highlighted that as a Centre, IPSTC is committed to the Sendai Framework for joint action for cooperation, coordination and building resilience. He added that through its collective efforts, the Centre aimed at adding value that will assist planners in implementing sound urban and rural land use as well as ensure that developments on the coastal zones and inland water bodies were more resilient. He stressed that the Centre also seeks to

ensure that Kenya is able to cope with rising sea levels as well as adapting existing infrastructure to the perils of disaster. He concluded by expressing his sincere gratitude to the Government of Japan through UNDP, for providing the necessary funding for this Research Agenda Workshop as well as those in attendance for sparing time to attend the Workshop. At this point, he declared the Workshop officially opened.

6. Introduction of Presenters



Prof. Gatara spoke briefly on the history and enhancement of the capacity for maritime and disaster response management in Kenya. He noted that the question to keep in mind is how to deal with the other contributing factors such as climate change, specifically global warming which contribute to disasters all around the globe. He then briefly highlighted the key topics that would be presented in relation to the thematic area of Disaster Response and Management. He then invited Mr. Joseph Kioi Mbugua to make his presentation.

7. Presentation of Research Papers

Three researchers of the Peace and Security Research Department (PSRD) presented eleven areas of field and desktop research, which sought to address disaster response and management. Members of the audience were requested by Professor Gatara to keenly make observations and note the important issues raised by the presenters, in order to effectively critique each presentation during the plenary session.

7.1 Gauging Disaster Management Preparedness along Kenya's Coastline

Presenter: Mr. Joseph Kioi Mbugua

7.1.1 Introduction



In his presentation, Mr. Mbugua began by observing that disaster management is a continuous process where emergency management; mitigation, preparedness, response and recovery are improved (UNISDR, 2015; Connors and Ayobi, 2016). He explained that preparedness refers to the capacities and knowledge developed by various actors to anticipate and respond to hazards (UNISDR, 2015; UNISDR, 2005) and that the study would focus mainly on Mombasa and Lamu County covering the areas of industrial pollution, biodiversity and ports.

7.1.2 Extent of the Problem

Mr. Mbugua noted that maritime disaster management preparedness in the country is currently unknown. He added that there are no specific and effective national or county policies and strategies for maritime disaster preparedness. However, the Kenya Maritime Authority (KMA) has a contingency plan against oil spills (KMA, 2018). He explained that institutions in charge of response and coordination of maritime rescue such as KMA have low capacity that hampers their effectiveness (Mbugua and Mwachinalo, 2017; Long'iro, 2014; Muthiga, 2003). He referred the participants to 2005 when an Indian oil tanker, MV-Ratna Shalini, discharged 5 million litres of crude oil at Kilindini Harbour causing extensive damage to marine ecosystems especially mangroves (GK, 2009). He also spoke about the sinking of the Kenyan MV Likoni Ferry at Mtongwe in Mombasa (1994) killing 272 people, which was the worst maritime disaster in the country (GK, 2009). He added that during the 1997 El Nino rains in the Western Indian Ocean, Kenya's coral reef was drastically reduced (McClanahan et al, 2001).

7.1.3 Research Question

What is the nature and dynamics of maritime disaster management preparedness in Kenya's coastal maritime domain?

7.1.4 Objectives

The objectives of the study were as follows:

1. To examine the state of institutional capacity and preparedness for maritime disaster management in the Kenya coastal maritime domain;
2. To assess factors that hinder effective maritime disaster management preparedness; and
3. To establish the critical success factors for maritime disaster management

7.1.5 Justification

He explained that the study was informed by low maritime disaster management has had a huge impact on security, safety and the national economy. In addition, experiences in the country's drought management indicate that a formal preparedness system can reduce the cost by more than 50% (GK, 2009).

He stated that given the immense national maritime territory (more than 42% of what?) and its vulnerability, a specific maritime preparedness policy is required and that research on maritime disaster management preparedness in Kenya should be increased and sustained (IMO, 2010).

7.1.6 Scope

The study would examine preparedness capacity in terms of legislation, related policy/strategy, institutions and measures. He added that it would also examine early warning and Response (EWER) systems, undertake analysis of vulnerabilities and risks and analyse disaster response measures in place. In addition, the study would undertake a capacity analysis with regard to specific institutions

7.1.7 Methodology

He broke down the methodology as follows:-

- The research design would entail an exploratory survey (Denzin and Lincoln, 2011).
- Sampling would be purposive and chain referral
- Data collection methods would include key informant interviews (KII), focus-group discussions (FDG) and observation
- Data analysis - content and gap analysis would be used
- Validity and reliability – Validity would focus on the accuracy and meaningfulness of inferences while reliability would focus on the ability of instrument to yield similar results over time (Mugenda and Mugenda, 2009).

7.2 An Assessment of Maritime Domain Awareness (MDA) in Kenya

Presenter: Mr Joseph Kioi Mbugua

He begun by explaining that Maritime Domain Awareness (MDA) refers to the comprehension of all that is within rivers, lakes, oceans and adjacent areas, that could potentially influence safety, security, economy and environment. It includes situational awareness and potential threat awareness. He added that the East African maritime domain stretches from South Africa to the Gulf of Aden and the Red Sea (Vrey, 2013) and that the coastline in Kenya is about 500 km from the Somalia border to the Tanzanian border. He noted that UN Convention on the Law of the Sea (UNCLOS), 1982 assigns sovereignty, jurisdiction and rights for resources control to littoral states.

7.2.1 Extent of the Problem

He stated that MDA in Kenya is low and the factors behind are not well known (Mbugua and Mwachinalo, 2017; IMO, 2010). There is also no effective national or regional maritime MDA advocacy program (IMO, 2010). He mentioned that Kenya collects about Ksh. 350 Million from the licensing of foreign fishing vessels and according to the Department of Fisheries, with improved awareness, this revenue can reach about Ksh. 4 Billion and the potential revenue accruing from fish-value-chain is estimated to be around Ksh. 30-50 billion (Department of Fisheries, 2017).

7.2.2 Research Question

How can Maritime Domain Awareness level in Kenya be enhanced?

7.2.3 Objectives

The objectives of the study as follows:-

1. To determine factors that hinder enhancement of maritime domain awareness in Kenya
2. To assess the challenges of raising the level of maritime domain awareness
3. To analyse factors that determine maritime domain awareness level

7.2.4 Justification

The justification for this study is that MDA in East Africa and Kenya in particular is low (Mbugua and Mwachinalo, 2017; Long'iro, 2014; Schbley and Rosenau, 2013; Thadeaus, 2013; IMO, 2010). When MDA is low among critical actors, there is little recognition of the immense economic potential that a maritime domain could hold and its implications for national security and maritime disaster preparedness in particular. He also added that research on maritime domain awareness was relatively low in the region (Mbugua and Mwachinalo, 2017; IMO, 2010). Therefore, more research is required.

7.2.5 Scope

He stated that the study would cover Kenya's coastal maritime domain and more specifically Mombasa and Lamu County legislations, relevant strategies, knowledge and skills in MDA. With regard to capacity.

7.2.6 Methodology

He outlined the methodology as follows:

- Research design – Exploratory survey, suitable for gauging perceptions where uncertainty is high (Cooper and Schindler, 2010)
- Sampling - Purposive and chain referral
- Data collection methods– KII, FGD, Observation
- Data analysis – Content, gap analysis

7.3 An Assessment of Kenya's Institutional Capacity for Disaster Management in Marine Protected Areas

Presenter - Mr. Joseph Kioi Mbugua

Marine Protected Areas (MPA) are maritime zones recognized by law as possessing vital sea-based flora and fauna worth state protection. Kenya's coastal marine zone consists of the water and terrestrial areas. MPAs cover 10.4% of territorial waters (Tuda and Omar, 2012) composed of coral reef, sea grass, mangrove, fish, sand beaches, turtles, other organisms, shells, crabs, lobsters, prawns and octopus among others. He then explained that Kenya was the first country in Africa to establish MPA, specifically in Malindi-Watamu Marine National Park and Marine National Reserve in 1968 (Pertet, 1984; Tuda & Omar, 2012)

7.3.1 Extent of the Problem

Mr. Mbugua noted with great concern that the capacity of the Kenya Wildlife Service (KWS) and other institutions responsible for MPAs against man-made and natural disasters was unknown. He elaborated that MPAs were vulnerable to pollution, land degradation, unregulated development, climate change, marine debris, and wastewater, and ballast water, acts of terrorism, over-fishing, erosion and loss of habitat, among others (Mbugua and Mwachinalo, 2017; Odote, 2015; Tuda and Omar, 2012; McClanahan, 1997).

7.3.2 Research Question

What is Kenya's capacity to respond to marine protected areas disasters?

7.3.3 Objectives

- He outlined the objectives of the study to be as follows: -
- To examine the nature of marine protected area disaster risks in the Kenya's Indian Ocean Maritime Domain;
- To assess the capacity to effect marine protected area disaster risk reduction; and
- To analyse the factors that determine effectiveness of marine protected areas disaster risk reduction.

7.3.4 Justification

He explained that MPAs hold potential for increasing biodiversity and ecological conservation and are a source of revenue from tourism (average 70, 000 – 160 000 visitors (1997-2010) bringing more than US\$1.5 million annually, and support about 2,000 boat operators (Tuda and Omar, 2012). In addition, they provide opportunities for enhancing marine research. He also noted that the National and County governments' focus on marine protected areas disasters was inadequate (DI, 2017).

7.3.5 Scope

He stated that the study sites would include Mombasa and Kilifi Counties. He added that Kenya has 4 MPAs as national parks and 6 reserves. The study would also look into legislations, policies and strategies relating to MPAs.

7.3.6 Methodology

He stated that the methodology would entail: -

- Research design – A Case study (Yin, 2009)
- Sampling - Purposive, (non-probability), 4 MPAs out of 10
- Data collection methods– KII, FGD, Observation, tools will be key informant and focused group discussion interview guides
- Data analysis – Content analysis

7.4 A Review of Institutional Capacity for Flood Disaster Risk Reduction in Narok and Nairobi Counties

Presenter: Mr. Joseph Kioi Mbugua

The researcher defined flood as a natural phenomenon that leads to temporary submersion of a piece of land in water and explained that Nairobi and Narok Counties had indicated vulnerability to floods due to natural and manmade factors (KRCS, 2015). Large populations of Nairobi live in informal settlements (slums) located near or along river banks and areas near the Thika Super Highway.

7.4.1 Extent of the Problem

Mr. Mbugua indicated that urban centres are exposed to flooding risk due to limited spatial and urban planning, poor drainage systems leading to water-borne diseases such as cholera and Rift Valley fever (DI, 2017; KRCS, 2015). He added that floods had caused loss of livelihoods, devastated food reserves, washed away homes, and destroyed infrastructure - roads, bridges posing food security and safety challenges (DI, 2017; IRIN, 2013) yet there is limited DRR capacity and national and County levels (DI, 2017). In 2013, floods in Kenya led to the death of 93 people and affected 100, 980 people with 87,000 of them displaced (KRCS, 2013). In this case, Narok was most affected with 15 deaths and displacement of 350 people.

7.4.2 Research Question

What are the institutional capacities of Nairobi and Narok County governments' capacity for flood disaster risk reduction (DRR)?

7.4.3 Objectives

The objectives of the Study would be as follows:-

1. To audit Nairobi and Narok County's current floods DRR strategic plans and programmes
2. To evaluate the institutional capacity for DRR flood disasters
3. To determine opportunities for enhancing flood disaster risk reduction in the target Counties

7.4.4 Justification

About 10% of Kenya's population (4 million) lives in Nairobi contributing more than half of Kenya's GDP. He stressed that development of a flood DRR strategy would enable improvement of institutional resources and capacity (UNISDR, 2015) and that effective floods DRR plans can raise the effectiveness of early warning systems, communication and knowledge-sharing and increase resilience of communities. The cost of the 2008-11 droughts was estimated at Ksh. 242. 1 billion and a DRR strategy to mitigate such a disaster would have essentially required only Ksh. 36.2 billion (GoK, 2011).

7.4.5 Scope

The researcher explained that the study would undertake an analysis of floods disaster risk reduction capacity in Narok and Nairobi counties, look into the effectiveness of the already existing policies and practices in preparedness and rapid response to disasters.

7.4.6 Methodology

He stated that the methodology would entail: -

- Research design – A Case study (Yin, 2009; Zucker, 2009)
- Sampling - Purposive, Non probability (Mugenda and Mugenda, 2009)
- Data collection tools – KII, FGD, Observation
- Data analysis – Content analysis

7.5 Analysis of Humanitarian Response Coordination in Urban Centres: Case of Nairobi County

Presenter: Col. Donatien Nduwimana – Researcher



He started his presentation by stating that coordination of humanitarian response to disasters is the systematic utilization of policy instruments to deliver humanitarian assistance in a cohesive and effective manner and this is done through:

- Strategic planning;
- Gathering data and managing information;
- Mobilizing resources and assuring accountability;
- Orchestrating a functional division of labour in the field;
- Negotiation and maintaining a serviceable framework with host political authorities; and
- Providing leadership (Minear et al, 1992)

7.5.1 Extent of the Problem

The researcher explained that during disaster response in urban centres, coordination between different stakeholders involved is a major challenge due to the complexity of some crises and the number of actors (McEntire, 2008). The complex urban settings and the need to consult and seek permission have challenged the traditional ways of coordinating and implementing humanitarian response to disasters (ICRC, 2017). He added that in urban cities including Nairobi, some of the population lives in settlements often located in hazardous areas, lacking access to basic services, and highly vulnerable to a range of risks (Dodman, 2013). He noted that the legislative and institutional framework on Disaster Risk Reduction (DRR) in Kenya is fragmented, uncoordinated and many of the institutional mandates overlap (Nabutola, 2013).

7.5.2 Research Question

How is humanitarian response to disasters coordinated in Nairobi City County?

7.5.3 Objectives

He outlined the objectives of the study to be as follows: -

1. To determine the nature of disasters in Nairobi City County
2. To analyze the status and dynamics of humanitarian response coordination mechanisms in Nairobi City County; and
3. To assess best practices for effective humanitarian response coordination in Nairobi City County.

7.5.4 Justification

He indicated that the application of effective coordination and collaboration in disaster management has been fronted as an appropriate way of handling various disasters by disaster management actors/institutions (Menya and Akumun, 2016). As such, the study findings will help in the formulation of strategies that will guide the humanitarian agencies in coordination of responses in urban disaster management.

7.5.5 Scope

He explained that the focus of this study is to analyse the humanitarian response coordination in Nairobi.

7.5.6 Methodology

The methodology would entail:

1. Study design would involve a descriptive sample survey
2. Study population: A number of local and international (NGOs), United Nations (UN) agencies and governmental bodies and agencies that provide humanitarian assistance
3. Data collection methods: Primary data will be collected through oral interviews using structured questionnaires; FGDs
4. Secondary data will be collected through review of published online journals (desktop materials) and books
5. Sampling: Purposive- based on characteristics of the respondents

7.6 Evaluating the Effectiveness of Multi-Stakeholder Approach to Maritime Disaster Management in Lake Victoria Basin (LVB)

Presenter: Col. Nduwimana Donatien –Researcher

Col. Nduwimana begun by highlighting the fact that the Lake Victoria Basin (LVB) covers an area of 193,000 km² (Burundi, Kenya, Tanzania, Rwanda and Uganda) and supports about 40 million inhabitants. Over the years, the LVB has faced a number of environmental problems, including pollution from domestic, industrial and agricultural activities, biodiversity loss, habitat destruction and soil erosion. These require the formulation and harmonization of clear strategies for maritime disaster management (MDM).

7.6.1 Extent of the Problem

The researcher indicated that changes in precipitation due to climate change have caused unpredictable flooding and droughts, compromising socio-economic activities in the Basin (DIIS, 2015). In addition, it is estimated that the lake's indigenous fish species have been reduced by about 80% and over 70% of the forest cover in the catchment area has been lost (Flood and Drought Management Tool Project Report, 2014).

7.6.2 Research Question

How effective are the strategies that the five countries and other stakeholders have put in place towards maritime disaster management in LVB?

7.6.3 Objectives

The objectives of the study are as follows:-

- a. To analyze Disaster Management problems affecting the LVB.
- b. To determine the state of cooperation and joint actions between states.
- c. To identify best practices that can enhance maritime disaster management in LVB.

7.6.4 Justification

According to Principle 21 of the Stockholm Declaration on Shared Waters, states share the responsibility for addressing the common concerns (UNEP 1997). There is a need for effective regional collaboration and harmonization of strategies to enhance public participation and awareness in maritime and disaster risk management and therefore, the study findings would greatly help in this respect. In addition, the study findings will be used as a guideline in capacity building mechanisms aimed at harmonizing regional strategies to enhance public participation and awareness on MDM in order to save lives.

7.6.5 Scope

He stated that the study would be conducted in the Lake Victoria Basin with a focus on evaluating the effectiveness of a multi-stakeholder approach in maritime disaster management in the region.

7.6.6 Methodology

He explained that the methodology would entail the following: -

- Study design: Exploratory Survey
- The Study Area would include Burundi, Kenya, Uganda, Rwanda and Tanzania
- The Study Population respondents would be drawn from national and regional institutions involved in environment and disasters such as, Lake Victoria Environment Management Project (LVMP), Lake Victoria Fisheries Research Project, Nile Basin Initiative, Lake Basin Development Authority (LBDA), National Environment Management Authorities (NEMAs) and the Lake Victoria Commission.
- Proposed data collection methods: Interviews with targeted questionnaires and focus-group discussions

7.7 Youth Participation in Disaster Management: Case of Tana River County

Presenter: Col. Nduwimana Donatien –Researcher

The Tana River County Integrated Development Plan (2013-2017) identifies disasters related to floods, drought and livestock diseases as threats due to the fragile ecosystem. Col. Donatien stated that the County was ranked at position three in flood disaster management as it prioritized climate change mitigation and adaptation actions (Kenya county integrated development plans 2013 – 2017. Majority of the population (87.5%) use firewood for cooking and only 0.9% of the households are connected with electricity. He then explained that Disaster Risk Reduction (DRR) measures needed to be undertaken to safeguard against loss of livelihoods resulting from disasters.

7.7.1 Extent of the Problem

He indicated that the youth are greatly affected by poverty, inequality, economic insecurity; political uprisings, conflict and climate change (Kenya Youth Policy Guide, 2015). In Kenya, youth form a significant portion of the population. Young people between ages 15-35 years constitute 36 % of the population (Youth Policy Guide – Kenya, 2015). He noted that despite their numerical superiority, they are the least represented in political and economic spheres due to societal attitudes, cultural and economic barriers (Kenya Youth Policy Guide, 2015).

7.7.2 Research Question

What is the role of the youth in disaster management in Tana River County?

7.7.3 Objectives

He outlined the objectives of the study as follows:

1. To analyze the response strategies undertaken in Disaster management in Tana River County
2. To assess youth participation in disaster Management in Tana River County
3. To determine the challenges that affect engagement of the youth in disaster management in Tana River County.

7.7.4 Justification

Youth affairs need to be given adequate attention (chapter 4 of the Constitution of Kenya, 2010, Article 19(2)). Inclusive and effective disaster reduction requires youth involvement since they are an important entry point to reducing the impact of disaster crises. He explained that the youth provide the energy, creative ideas and determination to drive reform in this particular area, hence they can increasingly develop their own solutions to global challenges.

7.7.5 Scope

The study will be conducted in Tana River County and will examine the participation in all phases of the Disaster Management Cycle of the youth, one of the vulnerable and marginalized groups.

7.7.6 Methodology

He explained that the methodology would entail:

- Study Design: Survey
- Study area: Tana River County
- Main respondents: County and Sub-County disaster management committees, community administrators, community elders, Department of Youth, Gender, Sports and Social Services, Youth Groups and Associations

Proposed data collection methods: KII, FGD and consultation of secondary Sources.

7.8 Maritime Disaster Risk Reduction Capacity: A Comparative Analysis of Kenya & Tanzania

Presenter: Dr Eunice Njambi



7.8.1 Extent of the Problem

Maritime disasters (MD) frequency and occurrence in Kenya and Tanzania have increased. The researcher, Dr. Eunice Njambi, explained that between 2000 and 2016 147 MD affected over 50 million people, (EAC 2012 -2016 DRR). About 70% of MD in Kenya and Tanzania are related to extreme climate change impacting on water balance, agriculture, forestry, coastal ecology, biodiversity and human and animal populations (Centre for Research on the Epidemiology of Disasters (CRED, 2016). She added that disasters undermine sustainable development gains, dragging the most vulnerable into deeper poverty.

7.8.2 Research Question

What is the capacity of maritime disaster risk reduction (MDRR) mechanisms in Kenya and Tanzania?

7.8.3 Objectives

She outlined the objectives to be as follows: -

1. Examine the nature and magnitude of MD risks in Kenya and Tanzania;
2. Assess the MD DRR policy/legislation in Kenya and Tanzania;
3. Analyse the structural needs of the national disaster management units (NDMUs) in charge of DRR; and
4. Evaluate national DRR capacity investments.

7.8.4 Justification

She explained that DRR is a cost-effective investment in preventing future losses and effective DRR contributes to sustainable development. In addition, DRR has been reaffirmed as an urgent need nationally, regionally and internationally and its development agenda includes:

- SDGs (2, 8,11,12, 13, 14,15), Sendai Framework for DRR (2015-2030)
- AU Agenda 2063 goals (3,5,6,7), Africa Regional Strategy for DRR
- EAC (DRR 2012- 2016)

She then stressed that it was pertinent to inform policy on ways of strengthening DRR governance in order to properly manage disaster risks at the national and local levels.

7.8.5 Scope

She explained that the study focus was on national institutions dealing with MDRR and that only prevention and mitigation components of DRR will be analyzed. She added that capacity would be analyzed using the concepts of:

- Authority: policy and legislation related to MDRR
- Resource: Human, financial, DRR institutional investments
- Responsibility: Accountability in making the right decisions?

7.8.6 Methodology

She stated that the methodology would entail the following: -

- Study design: Analytical comparative study
- Study population would be the Disaster Management Agency and/or Department, National Disaster Operations Centre in Tanzania as well as the National Disaster Management Units and Ports Authority Disaster Units of Kenya
- Proposed data collection methods would be Qualitative through KII, FGD and Observation. The data collection tool would be a check-list
- Secondary data-systematic content analysis

7.9 Community-Based Responses to Maritime Disasters in Kwale and Lamu Counties

Presenter: Dr. Eunice Njambi

7.9.1 Extent of the Problem

Dr. Njambi begun by stating that Kwale and Lamu Counties were prone to maritime disasters when it comes to transport, drought, floods, insecurity (County Integrated Development Plans 2013-2017). This is despite the fact that the two Counties have Disaster Management Plans. In addition, the draft national DM policy states that capabilities of institutions at the community level are weak. She explained that the community is the first receivers and casualties to disaster. As such, their response mechanisms are important when it comes to Disaster Management. She emphasized that Maritime disaster impacts are long lasting causing psychosocial, infrastructural, economic and environmental losses that exceed community ability to cope.

7.9.2 Research Question

What are the existing community-based maritime disaster responses in Kwale, and Lamu Counties?

7.9.3 Objectives

She outlined the objectives of the study as follows:-

- a. Establish the community knowledge on MD
- b. Examine the existing County and Sub-County MD plans and structures
- c. Evaluate the capacity of community disaster management (CDM) committees

Analyse the effectiveness of community-based interventions in MD management

7.9.4 Justification

She stated that the national disaster management policy recognizes the importance of bottom-up community participation in all aspects of disaster management. This calls for the need to establish the gaps between required disaster response capabilities and those existing at community level in order to inform policy on ways of strengthening both community-based participatory approaches in disaster response, and public awareness campaigns related to community disaster response.

7.9.5 Scope

She explained that the study would focus on community-based responses in three categories of disaster as classified in the Draft National Disaster Management (NDM) Policy (2009).

- Environmentally-triggered (climate-related;- droughts, floods)
- Human-made disasters such as socio- economic?
- Biological epidemics i.e. diseases, pests (for human, livestock and crops) conflict, accidents, etc.

7.9.6 Methodology

She detailed the methodology as follows: -

- Study design: analytical study
- Study population would include Household heads – Main respondents, County DM committees, community administrators, community elders
- Proposed data collection methods are Quantitative i.e. Household surveys and Qualitative specifically KII, FGD

7.10 Assessing Effectiveness of IGAD Early Warning Systems in Disaster Management

Presenter: Dr Eunice Njambi

7.10.1 Extent of the Problem

She stated that Disaster Early warning systems (EWS) are a major element of DRR, yet the IGAD region experiences immense challenges due to man-made and natural disasters (IGAD 2016). From 1986 to date, the IGAD region remains the most prone to disasters related hydrological, climatological, meteorological and geophysical processes. She emphasised that globally, 50 % of the reported disasters in 2006 -2016 occurred in the IGAD region (CRED, 2016) and drought alone affected 20 million people.

7.10.2 Research Question

What is the effectiveness of IGAD EWS in Disaster Management?

7.10.3 Objectives

She outlined the objectives as follows: -

- Examine the disasters in Kenya and Uganda from 2012 to 2017
- Evaluate IGAD disaster alerts issued to Kenya and Uganda from 2012 to 2017
- Assess the effectiveness of existing national governance structures responsible for IGAD disaster alerts
- Analyze the capacity of national institutions in charge of responding to IGAD disaster alerts between 2012 and 2017

7.10.4 Justification

The researcher noted that EWS in DRM is articulated in IGAD's Strategic Plan (2016 -2020) which provides for agriculture, natural resources, environment climate variability and change and disaster risk management. The significance of an effective EWS lies in the recognition of its benefits by the local people. This calls for the need to assess the national units responding to IGAD EWS alerts. She then explained that the study would inform IGAD and national units on ways to improve effectiveness of EWS.

7.10.5 Scope

She emphasized that the study will only focus on Kenya and Uganda and only NDM institutions in charge of responding to IGAD EWS alerts will be included. In addition, the study will analyze the effectiveness of the four elements of EWS namely, Risk knowledge, Monitoring and Evaluation, Dissemination and Communication and EWS effectiveness, which will be measured using people-centered early warning systems checklist (UNISDR 2006).

7.10.6 Methodology

She detailed the methodology as follows: -

- Study design: Analytical comparative study
- Study population includes the IGAD Early Warning Systems Unit, National Disaster Management Units (NDMU), and National Drought Management Authority (NDMA)
- Proposed data collection methods is Qualitative i.e. KII, FGD
- Secondary data-content analysis

7.11 Evaluating Community Engagement in Disaster Management: Case of Busia and Kisumu Counties Presenter: Eunice Njambi

She began by explaining the community engagement ladder which contains three levels, which were indicated in power point presentation. Thereafter she spoke on the extent of the problem with regard to the study.

7.11.1 Extent of the Problem

She stated that both Busia and Kisumu County Integrated Development Plans (2013-2017) identify disasters related to floods, drought and disease epidemics as the top five threats due to fragile ecosystems. She emphasized that this leads to loss of life, displacement of people, destruction of livestock, crops, property, and infrastructure, which in turn bring about waterborne diseases. The Kenya Integrated Household Budget Survey listed poverty levels in Busia at 70 percentage and Kisumu at 30%, (KBS, 2016).

7.11.2 Research Question

To what extent is, the community engaged in disaster management in Busier and Kisumu Counties?

7.11.3 Objectives

She highlighted the objectives of the study as follows:-

- Examine existing community engagement process in DM
- Assess community engagement in DM information delivery and sharing
- Analyse community engagement consultation and collaboration in the DM project cycle
- Evaluate the level of community-empowerment in DM decision making

7.11.4 Justification

Meaningful community engagement is a constitutional right for all citizens as stated in:

- The Constitution of Kenya, 2010
- Prevention, Protection and Assistance to Internally Displaced Persons and Affected Communities Act, 2012
- County Governments Act, 2012
- Environmental Management and Coordination Act, 2015
- Access to Information Act, 2016

Dr. Njambi stressed that community engagement was key in sustainable development of the Counties in DM programming

7.11.5 Scope

She elucidated that the study will analyze community engagement using three levels namely:

- Low level: Inform; Consult
- Mid-level: Involve; Collaborate
- High level: Empower, Community-driven/led decision making

She added that the study would examine community engagement in the DM cycle as well.

7.11.6 Methodology

She detailed the methodology as follows:-

- Study design: Comparative study
- Study population to include Household heads – (Main respondents), Community elders, County DM committees and Community administrators
- Proposed data collection methods are Quantitative i.e. Household survey and Qualitative i.e. KII, FGD?

8. Discussant Remarks

After the Centre's researchers had made their oral presentations on the research papers, Prof. Gatara invited the discussants to comment. The discussants were:

- a.) Dr. Patrick Maluki and
- b.) Dr. Wycliffe Oboka



Patrick Maluki, PhD
Trainer and Researcher In
International Conflict Management,
University of Nairobi.

8.1 Patrick Maluki, PhD

He started by stating that the outcome of research is based on the process of data collection meaning, the better and more comprehensive the process, the higher the quality of the data and findings.

In his review of the first topic, he emphasised that the study was necessary in order to inform Parliament on matters of policy to move the country forward. However, he suggested that with regard to the introduction, there was a need to contextualize the study by outlining the interrelationship between the Kenyan coastline and disasters, where they take place, how they are managed and by whom.

He also stated that the extent of the problem was inadequate since it does not explain how lack of disaster preparedness leads to loss of life and damage to property along the coastline.

He noted that the research question did not properly bring out the evaluative aspect of the disaster and its results. He argued that out of the research question, the researchers might need to develop one general objective and three specific objectives. The general objective should be able to address various aspects of the process and the objectives should be in a logical sequence for the study to flow. He stressed that based on

this; the researchers should be in a position to justify why the objectives are listed in that particular order. He therefore suggested that the first and second objectives be interchanged to make the study more focused. He mentioned that the justification should show the value of the study not the reasons for the study in order to guide the understanding of the study.

He also raised the issue of the study design under methodology. He observed that using other tools other than a survey is required in order to add value into the study and added that triangulation may not also be enough.

Dr. Maluki then discussed the topic on the assessment of Kenya's institutional capacity for disaster management in marine protected areas. He stated that the study had very clear dependent and independent variables and the title helps the reader identify which is which. He emphasised that it was essential to bring out the nature of the disasters in the introduction of the study. He also stated that contextualization in terms of what types of vulnerability these protected areas face should be included in the introduction as well. He mentioned that the problem statement should explain the extent, degree and dangers occasioned by disasters in marine protected areas. Thereafter, the researcher should explain how the relevant institutions have failed in their various roles with reference to mitigating the said disasters in these vulnerable marine protected areas.

He observed that though the research question and objectives were appropriate, the justification should bring out the value of the study as opposed to explaining why the study will be done. With regard to the methodology, he noted that a study conducted on 4 out of 10 areas would not be comprehensive enough. He argued that a case study design might not be appropriate because it is a comprehensive inquiry of a particular phenomenon, which one then generalises to the larger population or universe. As such, it would be prudent to change the study design of this study accordingly.

The discussant also discussed the research proposal on humanitarian response coordination in urban centres with specific focus on Nairobi. He mentioned that the researcher needed to demonstrate in the problem statement that despite adequate capacity to respond to disasters in urban areas, disasters wreak havoc in areas like Nairobi mainly because concerned authorities lack coordination. He stated that it was necessary to give supporting evidence for this assertion in the problem statement as well. He explained that he found the research question quite unclear because the question should address the concerns raised in the problem statement.

He then reiterated his earlier observation that the objectives should be listed in order of priority, for example disaster risk in Nairobi, coordination mechanisms for disaster response in Nairobi and the challenges of coordinating disaster response in the city. He also spoke on the methodology and stated that although surveys were suggested, he was of the opinion that there was need to use more comprehensive and inclusive methodology to work within the scope of the study and suggested using random sampling to increase objectivity.

In the study assessing the effectiveness of IGAD's early warning systems in disaster management with a comparative study of Kenyan and Ugandan national units, he had a number of concerns. First, the introduction section left out the operating environment of early warning systems. Therefore, a statement on what IGAD is and how it handles disaster management was quite important. On the problem statement, he found that disaster management was not the main concern of the proposed study. He added that the research question required reframing and this should be accompanied by a change of the title of the study from 'comparative study' to 'case study' and that way, the subject matter would be IGAD as an organization and not IGAD countries. He recommended that the objectives should be in conformity with the research question and problem statement.

Lastly, on the study on community-based responses, he noted that the introduction was well conceptualized. However, the statement of the problem should have been more precise; for example, the observation that the community was the first respondent was more of a justification than problem statement.

He argued that the objectives should clearly show what kind of data the researcher was interested. Therefore, three of the objectives should touch on the community for purposes of prioritization.



Dr. Wycliffe Oboka Alouch
Dean School of Co-operatives and Community
Development,
The Co-operative University of Kenya

8.2 Dr. Wycliffe Oboka Aluoch

In his discussion, Dr. Oboka engaged participants in a discussion of the first topic on 'gauging disaster management preparedness'. He argued that the best way to contextualize the study was by describing the local situation developing countries. The next step would be to look into the gaps and shortfalls lie. On the justification of the study, he reiterated the remarks by Dr. Maluki that the justification needs to show the value the study adds to existing knowledge as well as the reasons why the study is to be carried out.

He added that the Sendai Framework on Disaster Risk Reduction, Yokohama Strategy for Disaster Risk Reduction as well as Vision 2030 have certain expectations and therefore, all the studies should incorporate what is expected by all these documents.

With regard to the topic on the assessment of maritime domain awareness in Kenya, he was of the opinion that the first and second objectives were more or less the same.

On the assessment of Kenya's institutional capacity for disaster management of maritime protected areas, he noted that it was necessary to contextualize by looking into what is taking place with regard to disaster management in maritime protected areas globally before looking into where Kenya was as a country. He stated that the second objective of the study moves away from disaster preparedness and response and towards disaster risk reduction, which was a much broader area. He explained that if the focus was on disaster risk reduction, the focal point should be around four areas namely: understanding of the risks, governance, investment, and lastly enhancing preparedness on the same.

On the topic on enhancing multi-sectoral approaches in maritime disaster management in the Lake Victoria region, he stated that contextualization of this topic should have looked into global and regional practices before focusing on how it was taking place in the Lake Victoria region. He highlighted that the third objective was faulty because from the study it could be interpreted that activities in the Lake Victoria region were following best practices, which should emanate from the other objectives. This in essence could lessen the objectivity of the study. Only on analysing the practices would the researchers be able to deduce the good practices or lack thereof.

On the topic on 'Youth participation in disaster management: A case of Tana River', he observed that effective reduction of risk is only possible when there is engagement at all levels. He added that the researchers should also look into the context of youth participation globally to establish how the same could be changed and influenced in the area. He also was of the opinion that the main objective would be to analyze how the youth have been included in disaster management through existing strategies and structures. Therefore, if their participation was low or high, the researcher would be in a position to explain why this was the case.

With regard to the comparative analysis of maritime disaster risk reduction capacity in Kenya and Tanzania, he reiterated the four elements in disaster risk reduction and explained that based on these, the two countries can be evaluated on the basis of each of the four priority areas of action under the Sendai Framework.

On the topic of 'Community based responses to disaster management', Dr. Oboka explained that the researcher should have clearly stated whether the study was meant to evaluate, analyze or examine the said responses. He also stated that the study needed to be contextualized in the introduction by looking into

what was taking place globally. He argued that the justification of the study needed to include Principle 6 of the Yokohama Strategy, which provides for participation by all in disaster management. He added that the Sendai Framework also contained information on community-based responses to disaster risk reduction and it was essential to include the same in the study.

He mentioned that while looking into the effectiveness of IGAD early warning systems in disaster management, the study should examine the gap between early warning systems and early action. It should also look into whether the problem was with the early warning systems or communication channels of the warnings. He suggested that the objectives should therefore focus on the analysis of the status on the ground regarding the above.

Lastly, on the topic of community engagement in disaster management, he stated that contextualization was necessary by looking at the status of community engagement in disaster management globally, regionally and in other parts of Kenya in order to gauge where Busia and Kisumu lay. He also mentioned that an analysis of community engagement structures should be included in the objectives of the study.

9. Summary of Plenary Session



After the presentation of the proposed research papers by the IPSTC researchers and the remarks by the discussants, Prof Gatara invited the participants to give their comments. The plenary discussions centred on questioning not only the research topics but also their relevance, linkages with the overarching theme and the research gaps that need to be filled. Some of the issues raised included:

- On the topic on 'assessing the effectiveness of IGAD early warning systems in disaster management', the first objective on examining the disasters in Kenya

and Uganda from 2012 to 2017 should specify what aspects of the disasters are to be examined. The same should apply to objectives in the other studies to be done in the same area of inquiry.

- The topic on gauging disaster management preparedness along Kenya's coastline should include the term 'Maritime Disaster' in the heading since the body of the study mainly focuses on the maritime aspect of disaster management preparedness. In addition, the heading should specify that the study focus on Lamu and Mombasa Counties and not the entire Kenyan coast as implied by the researcher's constant reference to Lamu and Mombasa in the text.
- The researchers should narrow down on a specific benchmark with regard to institutional capacity in the study on the 'review of institutional capacity for flood disaster risk reduction in Narok and Nairobi Counties', in order to properly gauge what makes the institutions in place inadequate.
- With regard to validity and reliability of the studies, there needs to be statistical tools in place to aid the researchers because triangulation may not cut across all the studies.
- A question was asked as to why the Kenya Meteorological Department was not included bearing in mind that it is a major player in early warning systems
- Participants proposed incorporation of traditional knowledge of communities in the study on community engagement in disaster management to help the communities be more involved in disaster management since majority have their own methods of disaster detection and early warning systems that could be useful.
- Participants noted that researchers should have looked into legal frameworks and/or regional memoranda of understanding with regard to what the various countries had to offer guidance on whether or not they

had an integrated framework on disaster management.

- It was noted that objective two and three under the topic on institutional capacity were more or less the same and should therefore be merged into one. Topic 5 should be change to, 'To evaluate the nature of disasters in Nairobi County and the actors'.
- Under topic eleven, on community engagement in information delivery and management, it was noted that most institutions required a report to be and disseminated but communication was limited to emails within these institutions. These modes of communication were limited to the top level while at community level communication was via computer/social media applications such as twitter among others. Therefore, it was proposed that an analysis of how to empower those at the community level in order to have such tools of communication at their disposal to aid in disaster management, be incorporated into the study on community engagement.
- Monitoring and Evaluation should be included in the circle diagram in the topic 'Comparative Analysis of Maritime Disaster Risk Reduction in Kenya and Tanzania'.
- Participants expressed concern regarding the rationale behind the researchers' narrowing down to Tana River County in the study on 'youth participation in disaster management'. Was it because Tana River is the County most prone to disaster? In response to this, Col. Nduwimana stated that as a team they consulted about disasters happening in Tana River and other counties and found that it had one of the highest disaster risk profiles in Kenya.
- Lastly, there was a suggestion to replace the term community knowledge with indigenous knowledge.

10. Syndicate Presentations

Syndicate A suggested the following: -

- Changing the term 'gauging' in title of the first topic to read assessing disaster management preparedness along Kenya's coastline, because the term gauging was ambiguous. They were also of the opinion that the use of the words 'Kenya's coastline' limited the study because it was limiting the study to Kenya's territorial waters. The preparedness ought to take into account the entire spectrum of the coastline up until the EEZ.
- The second topic on assessment of maritime domain awareness in Kenya should be a priority topic because the level of maritime domain awareness was low.
- The topic on the assessment of Kenya's institutional capacity for disaster management was not a priority area because the same could essentially fall under topic 1 on gauging disaster management preparedness.
- On reviewing the institutional capacity for flood disaster risk reduction in Narok and Nairobi Counties, they made an inquiry as to whether the focus was on government institutions such as hospitals or humanitarian aid or on the capacity of the communities. The Syndicate also brought up the issue of adaptability of the areas prone to flooding and how the researchers can look into adaptability of these areas and how ability to recover from such disasters.
- On areas of future research, they suggested strategies for recovery, assessment of adaptability or resilience of disaster-prone areas, enforcement tools and capability, border security management and protection.

Syndicate B suggested the following: -

- In ranking and prioritizing the topics, they stated that the topic on analysis of humanitarian response coordination in urban centres with a case of Nairobi City County should come first. Followed by youth participation in disaster management, case of Tana River County and lastly, the topic on evaluating the effectiveness of a multi-stakeholder approach in maritime disaster management in Lake Victoria Basin.
- The basis of ranking some topics higher was because the first topic would greatly affect the response and coordination across all other urban centres, considering that Nairobi had more resources than other urban centres, as well as give room for the formulation of a national policy for response and coordination. The other two topics would have a lesser impact.
- On areas of further research, they suggested research on electoral violence, which is a perennial problem, the socioeconomic impact of the Standard Gauge Railway, the impact of coal exploration in Kenya, an analysis of the blue economy, and the role of language in peace keeping.

Syndicate C suggested the following: -

- In prioritizing, they suggested that the topic on assessing effectiveness of IGAD early warning system strategies in disaster management with a comparative study of Kenyan and Ugandan national units should take first priority because IPSTC had a role to play not only in Kenya but also in the whole of East Africa. The second in priority should be the 'comparative analysis of maritime disaster risk reduction capacity in Kenya and Tanzania' followed by the topic on 'community-based strategies in maritime disaster management in Kenya's coastal counties' and lastly, the topic on 'evaluating community engagement in maritime disaster management strategies in Busia and Kisumu Counties'.
- They suggested that community-based strategies should be included in the study's objectives. Secondly, the study on the effectiveness of IGAD should study the member states of IGAD as opposed to IGAD as an institution. Therefore, all member states should be included in the study and not just Kenya and Uganda. Last should come, the study on the effectiveness of IGAD's early warning systems, which should read 'assessing the effectiveness of early warning systems in IGAD member states'.
- On future areas of research, they suggested that IPSTC should undertake research in conflicts in IGAD member states, impacts of politics on regional security, proliferation of small arms among IGAD member states and lastly analysis of the impact of the G7 in the East African region.

11. Workshop Wrap-Up

Prof. Gatara wrapped up the workshop by stating that the day was quite an intellectual one and the exchange of ideas was fruitful. He mentioned that the topics discussed were pertinent and were reinforced by the detailed discussions of the participants. He highlighted the issue raised on pollution occurring in the area of the blue economy of the country, which is now a global topic having caught the attention of the United Nations and member states. He also spoke on the issue of climate change with a focus on the misconception that what was taking place in the Polar ice caps did not affect African countries since it results in rising sea levels. He thereafter summarised a few other issues discussed during plenary and gave the participants feedback on the steps that the centre would take in reviewing the suggestions made by the discussants and the participants. Lastly, he took the opportunity to appreciate the researchers, discussants and participants for their contribution to a successful workshop.

12. Closing Remarks



Col. Joyce C. Sitienei
Plans & Programs,
IPSTC Headquarters

Col. Sitienei gave the closing remarks on behalf of the Director, IPSTC Brigadier Nderitu.

She started by congratulating the participants for the good work they had done and for putting serious thought and effort in giving insights into the presentations of the day. She stated that there was no doubt that the issues prioritised were quite complex and challenging. However, the ideas shared would contribute greatly in improving the relevance of the IPSTC's research products. She mentioned that the workshop availed a rich and exciting discourse on various the views emanating from policy makers, researchers, practitioners as well as national and international NGOs.

She stated that the objectives of the workshop were realized through providing clear direction on the areas that required utmost focus. She appreciated the professionalism of all participants, their commitment and contributions to the important field of disaster management and response. She did not fail to recognise the crucial role of the discussants, Dr. Maluki and Dr. Oboka, in helping communicate and coordinate IPSTC's ideas in order to arrive at the desired output. She encouraged all participants as important actors in the area of peace and security, to read IPSTC's documents and give any information on what they have found useful as well as areas of possible improvement. She explained that this could be done through IPSTC's website or through the email of the head of the research department Lt. Col. Kiptoo, or senior researcher Prof. Gatara. Lastly, she stated that it was an honour to work with such a distinguished group of people and thanked all the participants again for attending the workshop.

She then officially closed the symposium and invited guests for a cocktail at the Peace Banda.

Appendices

1. List of Participants

Research Agenda Workshop 2018

0830-1710 Hrs.

27th, April, 2018

“Enhancing Capacity for Maritime and Infrastructure Disaster Response and Management”

Venue: IPSTC, Westwood Park Road, Karen, Nairobi

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2. Research Agenda Programme

Time	Event	Venue	Facilitator/Speaker
0830 – 0900hrs	Arrival & Registration	Amani Hall I	Peace & Security Research Department (PSRD)
0915 – 0930hrs	Welcome Remarks	Amani Hall I	Brig. P. M Nderitu Director, IPSTC
0930 – 0945hrs	Guest Speaker Opening Address	Amani Hall I	Cmdr. Masaki Nakagome Defence Attache, Embassy Japan in Kenya
0945 – 1000hrs	Group Photo	PCSS Lawn	RSM
1000 – 1040hrs	High Tea	PCSS Lawn	Joanne Keittany
1045 – 1055hrs	Self-Introduction of Participants (Name + Organisation)	Amani Hall I	Lt. Col. Kiptoo – Head of Research Department
1100 - 1120hrs	First Presentation: - Gauging disaster management preparedness along Kenya's coastline - Assessment of Maritime Domain awareness in Kenya - An assessment of Kenya's institutional capacity for disaster management in marine protected areas (MPAs) - A Review of Institutional capacity for flood disaster risk reduction in Narok and Nairobi Counties	Amani Hall I	Mr Joseph Mbugua
1120 - 1140hrs	Second Presentation: - Analysis of Humanitarian Response Coordination in Urban Centres: Case of Nairobi - Evaluating the effectiveness of a multi-stakeholder approach to	Amani Hall I	Col. Donatien Nduwimana

	Lake Victoria Basin 7. Youth Participation in Disaster Management : Case of Tana River County		
1140 - 1200hrs	Third Presentation: 8. A Comparative Analysis of Maritime Disaster Risk Reduction Capacity in Kenya and Tanzania 9. Community-Based Strategies in Maritime Disaster Management in Kenya Coastal Counties 10. Assessing effectiveness of IGAD Early Warning Systems Strategies in Disaster Management 11. Evaluating Community Engagement in Maritime Disaster Management Strategies in Busia and Kisumu Counties	Amani Hall I	Dr. Eunice Njambi
1200 - 1210hrs	Health Break		
1210 - 1225hrs	Discussant Remarks	Amani Hall I	Dr. Patrick Maluki
1225 - 1240hrs	Discussant Remarks	Amani Hall I	Dr. Wycliffe Oboka
1240 - 1400hrs	Lunch	Peace Banda	Joanne Keittany
1400 – 1430hrs	Plenary Session (Comments, Questions & Answers)	Amani Hall I	Prof. Timothy Gatara
1430 – 1440hrs	Introduction to Syndicate Discussions	Amani Hall I	Maj. S. D. Mwachinalo
1440 – 1510hrs	Syndicate Discussions	Amani Hall I	Prof. Timothy Gatara
1510 – 1540hrs	Syndicate Presentations		Syndicate Member
1540 – 1600hrs	Plenary Session (Comments & Questions)		
1600 – 1610hrs	Agenda Workshop Wrap-up		Prof. Timothy Gatara
1610 – 1615hrs	Agenda Workshop Closing Remarks	Amani Hall I	Brig. P. M. Nderitu Director, IPSTC
1615hrs	COCKTAIL	Peace Banda	Joanne Keittany
MODERATOR: Prof. Timothy Gatara, Senior Researcher IPSTC			



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