

## GENERAL INFORMATION OF THE PROJECT

### The Implementation Agency

Recipient : Government of the Republic of Kenya represented by Water Resources Management Authority (WRMA), Ministry of Water and Irrigation (MWI).

### The Employer

Implementing Agent : Japan International Cooperation Agency (JICA)

### The Consultants

Name : NEWJEC Inc

### Project

Name : The Project on Capacity Development for effective Flood Management in Flood Prone Areas

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## OPEN LECTURE ON COMMUNITY BASED FLOOD EARLY WARNING AND INSTALLATION OF WATER GAUGE GADGET

JICA Project Team organized a community based flood early warning workshop in from 15<sup>th</sup> to 18<sup>th</sup> October 2014 held at KEWI in Nairobi. The keynote lecturers were Dr. Omachi and Mr. Ooi from Japan. The two had worked extensively in the area of disaster (flood) management. The two lecturers had vast experience in working with the communities in Asia and Latin America. During the open lecture JICA Project Team facilitated WRUA members from Gucha Migori (LOGUMI WRUA), Isiolo (Isiolo WRUA) and Lumi (Lower Lumi WRUA) river basins. WRMA staff from headquarters, the Lake Victoria South, Athi and Ewaso Ng'iro North catchments also attended.

During the lectures the participants were taught on how to make rain gauges and river water levels gadgets using locally available resources. Thereafter the participants were also taught on the importance of coordination between the downstream and upstream for effective community based flood early warning. Mr. Ooi narrated a story of a woman in Costa Rica in Latin America played a pivotal role in flood early warning. The woman an observer in the upstream accepted an alarm to installed in her

home and she would warn communities in the downstream to evacuate anytime the alarm rings. She added that despite of her role the communities in the downstream did not even who she was! She pointed out that she would meet with downstream community members in the market but yet they did not even know who she was and the role she plays in issuance of flood early warning and thereby reducing the impacts of the floods in the downstream. Mr. Ooi further narrated that the woman observer did not need an accolade for her role but all she desired was that someone in the downstream to just say thank you or show gratitude to those in the upstream who sacrifice their time to help the people in the downstream!

The flower beauty of this narrative is the fact that there are those people who are in the shadows in the phases of floods but yet play important roles in saving human lives and reducing human suffering and casualties during occurrence of floods. The lesson we draw from the narrative is that the little effort that one puts towards flood management in area may not be recognized by many but the impact touches many lives!

After the lectures Mr. Omachi and Mr.

Ooi assisted communities in Isiolo and Lumi to set up the community based early warning. While in Lower Gucha Migori Eng. Kondo led a team that included WRMA-LVSC Regional and Kisii Sub-regional office that assisted LOGUMI WRUA to set up and install the community based Flood early warning wherein the water level gadget was installed at Wath Onger on 5<sup>th</sup> and 19<sup>th</sup> October 2014. LOGUMI WRUA members utilized the skills they had acquired during the open lecture to install the water level gauge gadget and its sensor.



Setting up of equipment



Testing of water level gadget



WRUA members dig trench to lay in cabling pipes that links the gadget at the river and alarm at observer's house



Group photo after installation of water level gadget at Wath Ongrr 1KB05

## Integrated Flood Management Newsletter



THE PROJECT

ON CAPACITY DEVELOPMENT FOR EFFECTIVE FLOOD MANAGEMENT IN FLOOD PRONE AREAS



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## FIRST GUCHA MIGORI IFMC MEETING

Gucha Migori River Basin is a unique basin. Its peculiarities stems from the fact that it is a vast basin stretching across five counties i.e. Nyamira, Kisii, Narok, Homabay and Migori counties. Because of its uniqueness the preparation for the first Gucha Migori Integrated Flood Management Committee Meeting started in earnest in August 2013 and eventually the meeting was held on 18th December 2013 at Migori Teachers Training College in Migori County. The meeting was attended by various relevant stakeholders in the river basin.

The purpose of this first Gucha Migori IFMC was as follows: 1) To get understanding on flood situation and flood management within Gucha Migori River Basin among the relevant stakeholders. 2) To understand necessity of river basin wide flood management plan. 3) To request relevant stakeholders to assist and cooperate with WRMA and WRUAs formulation of flood management plans, sub-regional level.

The meeting was also attended by JICA Project Team led by the Team Leader Eng. SAWA and JICA Chief Advisor to Project Eng. KONDO. WRMA Headquarters was represented by Flood Management Unit members i.e. Mr. NZYKO and Eng. KIMANGA.

Mr. Maturwe acting Regional Manager WRMA-LVSC made the opening remarks where he described the overview of the Lake Victoria South Catchment Area. He explained the importance of integrated approach in the management of the river basin. He welcomed the stakeholders to the first Gucha Migori IFMC and thereafter gave a brief overview of the Lake Victoria South Catchment.

Ms. Everlyne Onyango representing the County Government in her opening remarks stated that the County



Mr. Maturwemakes opening remarks

Governor and the Executive for Environment and Disaster were engaged in the Migori County Government Cabinet Meeting.

She pointed out that the County Government was appreciative of JICA effort in flood management in the Migori County. She challenged the education sector to incorporate flood and disaster management in the schools. She added that the Ministry of Environment and Disaster are engaged in reforestation in the County and also riverbank protection.

She challenged the stakeholders to be generation minded and stated that starts with developing futuristic plans like the intended Gucha Migori Integrated Flood Management Plan. She finalized her remarks by pointing out that the County Government was ready to cooperate with other stakeholders in the management of floods disaster.

Eng. Kondo the JICA Chief Advisor to the Project gave the key note address where he address the objective of IFMC and purpose of the first IFMC.



Eng. Kondo makes key-note address

He thereafter explained the Nyando Project and lesson learnt wherein he explained that the Nyando Project implementation was expensive and difficult for community to implement on their own or even under the support of the government. He clarified that the current Project aims at capacity development in flood management for WRMA and WRUA. He explained that Flood Management was currently the mandate of WRMA and sixteen Flood Management Officer had been dispatched to the sub-region offices.

Mr. Leonard Masafu the Sub-regional Manager WRMA-LVSC Gucha Migori made a presentation on progress of IFM Plan for Gucha Migori River Basin. Mr. Joshua Ouma made a presentation on Lower Gucha Migori Flood Management vis-à-vis Japan Experience. He explained the background of the Lower Gucha Migori. He thereafter gave the flood history in Gucha Migori. Mr. Elly Onyango made a presentation on KRCS current activities in LOGUMI SC. Mr. Richard Onsongo CAAC member from the upstream made a

presentation on human activities in the upstream the impact negatively the downstream.

Mr. Nzyuko made the closing remarks wherein he pointed importance of integrated approach in management of floods.



## WRMA STAGE ONE TRAINING

WRMA Stage One Training was held on 14<sup>th</sup> to 25<sup>th</sup> October 2013 at KEWI in Nairobi and Sunset Hotel in Kisumu respectively. It is predetermined by the Project Design Matrix that WRMA staffs be trained in effective flood management. The trainings are divided into three stages i.e. stage one trainees are trained in effective flood management, stage two the qualified trainees train other WRMA staffs and thereafter the training spreads across to all the sub-regional offices and WRUAs are also trained. The stage one training was segmented into two phases: phase one was held in Nairobi while the phase two was held in Kisumu.

The training in Nairobi commenced in earnest on 14th October 2014 and the training was officially opened by Technical Manager

WRMA HQ Eng. Kinyua representing the Chief Executive Officer (CEO) and the Financial Manager WRMA HQ who both made the opening remarks.



Eng. Kinyua makes the opening remarks

The training in Nairobi was theoretical in nature and entailed understanding the concepts in flood management and modalities of achieving effective management of floods. Facilitation during this phase was

through a workshop mode of approach which entailed PowerPoint presentations and thereafter questions and comments from the trainees and in some cases there were group discussions and thereafter group presentations.

There were also various lecturers engaged during the Stage One Training and they included leading Kenyan Professors, Japanese Experts and Project Supervisor Gucha Migori. The participants were WRMA staffs mainly from the Flood Management Unit in the Headquarters and the three Project Areas inclusive of the Regional Offices that the Project Areas fall under.



Stage One Participants keenly follow the lecture proceedings

### WRMA Stage One Training in Nairobi and Kisumu held from 14<sup>th</sup> 25<sup>th</sup> October 2013



A participant to the training states his expectations

During the Stage One Training the participants agreed to be time conscious and to maintain high level of discipline through out the training period.



Group Photo



Opening Session of the training

## WRMA STAGE ONE TRAINING PROCEEDINGS IN NAIROBI

During the entire training period in Nairobi the participants showed highest level of discipline and more importantly they were all keen with their studies with an average of 99% attendance in all the lectures.

The lecture room was electrifying and glowed with hunger for knowledge from the participants and passion for sessions by the lecturers. Just like they say "accounting for every drop of water" the participants were accounting for every minute of the lecture by their attentiveness, raising issues of concern, participating in group works making presentations and answering every question asked. It was awesome!

The modules covered during stage one training included: Cause and effect of floods; Understanding flood management; Flood disaster management; Rainfall observation; Rainfall Data and Statistical Processing; Integrated River Basin Flood Management (IRBFM); Community managed Flood Disaster Risk Reduction (DRR); Vulnerability assessment; Developing a Community Flood Hazard Map; Flood Early Warning System; Community Based Flood Early Warning; Introduction to Integrated Flood Analysis System (IFAS) and



Presentation on Progress in Lumi River Basin

Global Flood Alert System (GFAS); Evacuation Planning; Evacuation Centre Management; Capacity for Transmitting and Communication Skills; Communication on Desired Information to Schools; Effective Public Awareness



Keen attention during training

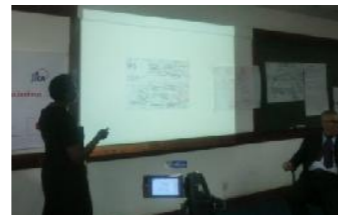


Training in progress

Raising on Flood; Planning and design of flood damage mitigation measures; Flood Damage Mitigation Non-Structural Measures including Community Based Measures; Flood damage mitigation structural measures including community-based measures; Co-operation and Co-ordination between Upstream and Downstream ; Role of Co-operation and Coordination; Co-operation with County Government, WRUA and DDMC; Role of District Disaster Management Committee (DDMC ).



Group discussion in progress



Presentations after Group discussion



## WRMA STAGE ONE TRAINING PROCEEDINGS IN KISUMU

The training in Kisumu was held at Sunset Hotel and it involved both theoretical and practical engagement. In theory sessions the participants were given lectures on effective flood management and the lecturers used PowerPoint Presentation mode.

Thereafter a field excursion exercise on community flood hazard mapping was carried out. The Winam WRUA played host to the training wherein the WRUA benefited by being part and parcel of Community Flood Hazard

Map development. The areas visited that fall under the jurisdiction of Winam WRUA were Okana and Nyamware areas and two Community Flood Hazard Maps for the two areas were developed.

There was also a site visit to rainfall station at Ahero National Irrigation Board Compound and also observation of high flow measurements at R. Nyando. The participants also visited Kamagaga Evacuation Centre a structural measure constructed under the Japan Grant Aid Nyando Project.



Briefing meeting at Rabuor



Field excursion to Okana village



Sketching of hazard map on ground



Transfer of map to manila paper

## TRAINING IN JAPAN

Disasters mainly earthquake, Tsunami and floods have occurred in Japan over centuries. This disaster occurrence has not led to submission of the people but in the spirit of the nation and her people Japan has exerted resilience that has seen the nation rising up from the horrors of history of disaster to become one of the most developed nation in the world.

Therefore the training in Japan by WRMA staffs on Effective Flood management was timely.

The training in Japan entailed of 20 staffs from

WRMA including 3 members from the WRUA. During the training in Japan the participants were taken to various sites in Japan but during the sites visits there were observations that indicated culture shock and the amazement of the melting pot characteristics of Tokyo City. The following were noted:

A) Timeliness which is a strong characteristics of Japan the City Shuttle leave on time and the smallest delay by a passenger means missing the Shuttle! Let's put in a context, "The welcome was

very warm and the staff had prepared everything it made us forget the jetlag we were all suffering from. Fast forward and the next day some of us missed breakfast and that was lesson number 1: that in Japan, allocated time for activities is strictly adhered to!" Mrs. Elizabeth Diego.

Other notable issues were work ethics, sea food, hospitality. Humility etc. For more do not miss the next month issue of IFM Newsletter!



Group Photo during the training in Japan



Osaka train station: time is strictly adhered to



Eng. Matagaro receives a 3D Map

## SITE VISITS IN JAPAN

The training in Japan was characterized with numerous site visits. In the next month Issue of the IFM Newsletter Training in Japan will be revisited. Do not miss your copy!

From Tokyo to Osaka we made several site visits to rivers, dams, museums, forest and had a close view of Mt . Fuji on our way from Tokyo to Osaka in a Shinkansen. A site visit to Arakawa river and we could not believe that this was a flood-way i.e. a man made river that was built purposely to control floods. The river is well managed and there is heavy investment by Ministry of Land, Infrastructure and transport that in each of their offices for the class A rivers managed there

is Disaster Information system that comprises of equipped offices with Fibre optic cables, CCTV,C-Band radar ,TV broadcasts. Data collected is real time which is relayed on the screens in the office this has empowered the Japanese in management of all kinds of disasters without causing wide spread destruction. The management of rivers in Japan is anchored in River Law which is adhered to by the citizens and implemented to the letter. For every river there is a dedicated river museum and its history is preserved, the rivers are continuously maintained, and we observed a multi purpose dam that was first constructed in 616 AD and is in perfect use to date over the centuries they have been building more embankments. In every place we went the welcoming was warm and thanks to

NEWJEC for the entertainment the dinners, sushi, beef bowl and all the cold drinks that came in ice. More will be in the next issue of this newsletter but I leave you with this quote: "The greatest lesson is enhancement of disaster prevention with focus on ability by people needs; 'ji jyo' 'kyo jo' 'ko jyo' meaning "myself" each other" public"



R. Arakawa flood-gates



Yodo Gawa weir



Amagase Multipurpose dam



Dinner: Sea food delicacies

