Mission Report of the meeting with IRGM

August 2015, Yaounde

(Prepared by M. Kusakabe. Reviewed by A. Fujita and G. Tanyileke, 15 August 2015)

In view of the upcoming final evaluation of the SATREPS NyMo project, Minoru Kusakabe, a key member of the project, visited IRGM, JICA-Office and the Embassy in Yaoundé during August 10th (Mon) and 15th (Sat) to discuss various pending issues pointed out for improvement by JICA-JST’s Mid-Term Evaluation (November 2013) and the 4th JCC (March 2015). These are summarized below.

**I. Social Implementation**

**I-1. The functions of LEMoC**

The need for a common understanding of the role and functions of this committee between C- and J-side of SATREPS-NyMo team was stressed. PDM\_2014 identifies “Disaster management through scientific cooperation between Japan and Cameroon” as one of the main Project Purposes.

 Dr. Hell pointed out that LEMoC’s mission is primarily scientific and not administrative, although it also has to give out timing and proper information. The proper information is supplied by the IRGM members of LEMoC after careful examination of the monitoring data. He also said that the DPC members of LEMoC need to understand the implications and limitations of scientific data.

In case of any observed anomalies in the data from the scientific monitoring, LEMoC should immediately meet and examine the data to see if they indicate an impending danger or not. If emergency is expected, LEMoC immediately informs the head of each institution. The heads meet and decide on the impending steps (e.g., issuing alert).

**I-2. The role of LEMoC**

 To achieve the Project Purpose, the roles and functions of LEMoC need to be clarified. The basic ideas for LEMoC can be extracted from PDM\_2014 and the 4th JCC Minutes (Mar. 2015).

* LEMoC consists of three representative persons each from IRGM and DPC. (IRGM members are Fantong, Issa and Romaric, and tentative DPC members are Kegne, Belinga and Ndoc. These members need to be approved by the two organizations. Aka may be better involved in LEMoC, but does not need to be involved in cooking data.
* LEMoC should meet if and when the need arises. Meeting frequency will be fixed in the first LEMoC meeting (when will it be?).
* The results of scientific monitoring are regularly and systematically prepared by the IRGM-LEMoC members, and shared with the DPC members.

Minutes of the meetings should be uploaded onto an appropriate website. A website devoted specifically to LEMoC may better be set up. Critical information for risk management and decision making cannot be on a website.

* LEMoC recommends disaster management to higher authorities. Note that DPC has its own plan “Nyos evacuation plan and Emergency relief plan”. Visit DPC’s website for details.
* LEMoC sets up the information network (list of telephone numbers) through which any information regarding the safety near the lakes is distributed promptly. This is DPC’s role.
* Social Awareness workshop for local people should be undertaken.

Field workshop following the action plans proposed by Aka-Kegne after their training in Kobe (July 2015) is expected to take place in the near future. The plans are waiting for approval by IRGM-DPC Directors. Timing and place of the workshop need to be fixed as soon as possible.

**I-3. Preparation of a hazard map and risk management manual**

 Preparation of a hazard map and risk management manual (RMM) is strongly recommended in the 4th JCC Minutes (Mar. 2015). We need to pay attention to JST’s mid-term evaluation by Prof. Honkura (JST’s top of SATREPS in the field of Disaster Mitigation) who strongly emphasized the necessity for a risk management manual for any area where a potential danger of disaster exists like Lakes Nyos and Monoun, because SATREPS-NyMo is one of the projects aiming at disaster mitigation (June 2014).

 Arrangement made by Mme Doi to send Aka and Kengne to the Group and Region-focused Training Course in Kobe (June 22-August 1, 2015) implied a JICA’s view that SATREPS-NyMo should be more disaster prevention-oriented, consistent with Prof. Honkura’s view.

 C-team in collaboration with concerned J-team members will prepare a draft of RMM by the end of Septmber and show it at JICA’s final evaluation. MK has sent a guideline to prepare the Risk Management Manual (RMM) to IRGM people (27 May 2015). Note that Romaric has the results of gas flow simulation at Lake Nyos, work done by collaboration with Dr. Kozono. They are important components of the hazard map. Romaric will prepare a draft by the end of September and distribute it to relevant people for review.

**I-4. Field workshops**

The Action Plans prepared by the trainees (Aka & Kengne) need to be approved by Drs. Hell and Nana. After the approval, DPC will organize the workshops in cooperation with IRGM. It is recommended to organize additional workshops in the future after SATREPS-NyMo terminates. The plan should be presented at the Final Evaluation.

**I-5. New leaflet**

A new leaflet that introduces a general view of the Nyos-Monoun disasters to general audience will be drafted by the C-team before the next field workshop.

1. **Laboratory Management**

**II-1 Management**

Responsible persons for maintenance of equipment in LAGE have been recently decided:

Lab management ------------------------------------------------------ Massussi

IC ---------------------------------------------------- Massussi, Justin and Jean

Picarro --------------------------------------------------­­----- Wilson and Robert

MilliQ and filters ----------------------------------------------- Jean and Robert

AAS ------------------------------------------------------------ Aka, Jean, Robert

Laser 13C/12C analyzer ------------------------------------- Issa and Justin

CTD -------------------------------------------------------------- Issa and Djomou

Multi-beam sonar ------------------------------------- Alain, Issa and Zachee

Auto Observation Buoy ------------------------------- Romaric and Djomou

Climate station ------------------------------------------ Romaric and Djomou

Polarization microscope ------------------------------------------------- Eyong

Sound velocity & surface CO2 -------------------------- Romaric and Alain

Sample storage and curation ------------------------------- Aka and Wilson

Deep-water removal system ------------------------------------------ Djomou

Field equipment like boats, engines, Nishio winches, etc. ----- Djomou

Responsible personsneed to pay attention to the following.

1. Inspect the current status of analytical equipment before switching it on and update notebook check list regularly.
2. If any problem is found, take necessary actions (contact with the engineers, replacement of required consumables, etc.) to repair promptly.
3. Prepare a SIMPLIFIED MANUAL for each instrument. The manual should be kept in a clear file folder.
4. Laboratory chief (Massussi) should organize lab cleaning at least twice a year. All lab members should participate in the cleaning.

**II-2 Maintenance of equipment**

* + When will AAS be finally fixed?--- Analytikjena engineer will visit the Nkolbisson laboratory by the end of August. Additional training may be made (?).
	+ Restoration of Mo’s climate station; its prospect; when? Restoration before CVL9 is preferred, but still unknown.
	+ MBES will be used at Lake Baleng before March 2016.
	+ Data acquisition from the AOB, Climate station and lake monitoring need to be analyzed and summarized in graphs for uploading at the appropriate websites ----------------------------------------------------------------------------- Romaric & Djomou
	+ Accreditation of analytical equipment ------------------------------ Aka and Massussi
	+ Purchase of a new CTD; when and where from? It is definitely needed at the time of CVL9. Greg is acquiring information from Franco Tassi (Italy).
	+ Have you purchased a large capacity filter for MilliQ?

 Filter re-arranged: The large filter was attached to the new MilliQ. Choked filter cartridge for IRD-donated MilliQ need to be replaced with new ones.

* + Make a protocol for ordering consumables.
	+ List of consumables. This is necessary to check what will be required next and to be budgeted.
1. **Infrastructure at Nkolbisson lab**
* Introduce powerful UPSs and lightning conductors --- Work is underway.
* Secure fuel for backup generator. ----------------------------- Greg said “Yes”.
* Internet available at Nkolbisson? ------------------------------ Greg said “Yes”.
1. **Sample storage**
* The room for sample storage was secured at the basement of Nkolbisoon laboratory. A plan has been prepared by John Eyong. Shelves and boxes to store samples need to be purchased.
* Prepare a list for water and rock samples using Excel (see a template that MK prepared in June 2014) saved in a PC at Nkolbisson.