

The UNHCR continued to work on the collection of data related to health in camps with smartphones. In 2011 there were missions in Bengladesh,—Dominican Republic, Kenya, Uganda.



During 9 months, 2 mapping technicians strengthened the Logistics Cluster / WFP team. Production of maps for the "Arab Spring" and assessment mission (Liberia).

GIS technicians supporting the IOM team in Haiti.

Database Management with IOM, the OSM community and local authorities.

International Geography Festival of St Dié. Raising awareness concerning our actions.



6 months of work on the REDD+ project that have paid off. Interns and consultamts have implemented an online training plateform with open source software.



January March

August

September

October

November

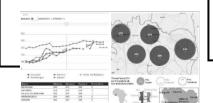
Production of maps for the International Committee of the Red Cross (ICRC)

Training for the volunteers on the humanitarian situation and use of GIS/information Management in this context

Libya: data mining for the humanitarian organisations (ICRC, MSF) and 3 month mission in the field with ACTED to setup an information center



Generalistic GIS & humanitarian training session for the Bioforce logisticians and specialised training sessions for Water and Sanitation



With ACAPS and NOMAD consortium, inventory of the mobile solutions and test in Haiti.

For 10 months, working with the RONGEAD NGO to facilitate their analysis on the cashew nut valorisation. Database modelling, development support, creation of a Google Earth file to raise awareness.



During the last 12 Months CartONG has created Geodatabases, Atlases, Emergency maps, thematic maps, webpages, E-learning content and guidelines, tutorials and videos for self study as well as workshops and training courses. CartONG also conducted Secondary Data review and research on REDD, refined Carbon Models, kept Infrastructural data up to date, coded electronic forms for data collection, handled Oracle and PostGreSQL databases, implemented Google Fusion tables and webportals, wrote Twitter entries and blog entries as well as proposals, maintained IT infrastructure and servers, monitored funds and last but not least held presentations and translated at events.

2012 will see us continuing on our mission to teach, share and create products to make a difference for our beneficiaries and their partners.

2011 was a year of sustained growth for CartONG, with numerous projects concerning various topics and tools. Two themes stand out, first of all projects linked to current news with all the actions around the Arab Spring during the first half of the year and secondly the increasingly frequent use of mobile technologies in different projects of data collection.

CartONG remains committed to capacity building and frequent exchanges within and without the humanitarian community, with the strong belief that maps are a key tool for crisis management – the focus for 2012 will therefore be the GeONG 2012, planned for the 5th and 6th November. We look forward to seeing you there!

Between the field missions and remote support, the humanitarian projects and those concerning long-term development, the staff and the volunteers, CartONG remains a human scale organisation but with sufficient resources to be able to have adequate responsiveness during a crisis. One of its 2012 aims is to continue to have some specific funding (independent from its usual projects) to be able to launch its own actions when necessary as well as to have someone permanently at the head office to be at the interface of the different projects.

Let us hope that things will go as well in 2012 and that with our continuing specialisation in geographic information, we will continue to bring appropriate answers to your projects. A word to the wise is sufficient!

Maeve de France, President.

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# Our activities/our actions

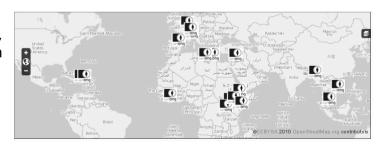
CartONG offers services of geographic data management, of cartography and GIS, of expertise in data management related to population displacement, of training sessions and of awareness concerning the uses of geographic data management. In 2010, CartONG started to work on mobile applications to collect information which remained a focus topic in 2011.

#### Our actions:

- Editing and Production of maps
- Providing geographic information
- Digitizing and Analyzing Spatial Data
- Android Smart Phone based Mobile Data Collection and Mapping
- Mapping of structures in the field inclusive of surveys to collect relevant indicators
- Webmapping, Google Map applications, Creation of KML Google Earth files, installation of Geoserver
- Analysis of Satellite images
- Capacity Building: training in GIS, GPS, Android Mobile Data collection, Databases, Data analysis
- Creation of E-Learning Modules and Self study material like Screencasts
- Visualizing data for Communication material, Donor reports
- Managing information to support decision-making processes;
- Creation of workflow: Establish routines for getting data from the field to the desk/server in Headquarters

#### Where CartONG works.

In 2011, CartONG, whose headquarters are in Chambéry, France, worked mostly in Haiti and Maghreb, but also in Uganda, Kenya, Dominican Republic, Liberia and Bangladesh.



Location: Haiti

# Mobile technologies

#### Mobile data collection with the NOMAD consortium

**Beneficiaries**: the humanitarian actors prone to use these tools

**Content:** The aim of this project is to demonstrate the technological, operational and economic feasibility of implementing integrated digital data collection and communication systems for rapid (real-time or near real-time) humanitarian assessment

and monitoring.

The NOMAD project, initiated with the NOMAD consortium (lead by iMMAP and bringing together NGOs and private sector companies (IMMAP, WFP, MEDES, AUVEA and CartONG.), has lead in 2011 to two pilot projects, one of them supported by CartONG. This pilot took place in Haiti and was hosted by IOM. The surveys CartONG participated in was creating and updating camp profiles in an Internally Displaced Population Setting. The technology used was Imogene, for which we can note that its use being more widespread, it can therefore be implemented in a more straightforward manner with fewer technical difficulties.

## **■** Android surveys for the UNHCR

Beneficiaries: UNHCR Location: Kenya, Dominican Republic, Bangladesh

Content: The aim was to use Android mobile technologies to build forms for rapid data gathering from the field

The UNHCR Android project already started in 2010 with two pilots and two different technologies, of which one was retained for surveys in 2011. The field projects directly supported in 2011 were in Kenya, Dominican Republic and Bangladesh. Remote support (consulting and form creation) was given to Chad and Pakistan. Android phones (who like other smartphones have a GPS, camera and mini-computer) are extremely useful tools to collect information and help gain time and money during humanitarian crisis. The 2011 surveys covered topics such as nutrition, reproductive health, mosquito net usage, WASH and census verification.

More specifically, step-by-step training material was set up concerning the ODK technology and was made available by CartONG and partners to help other users develop their skills in this field.

# **Database & Emergency mapping**

## **■** World Food Program / GIS LogCluster

**Beneficiaries**: logisticians **Location**: Rome

Content: The aim was to create a transport infrastructure database for Northern Africa

During the Arab Spring, a strong need for geographic data concerning the different countries was felt. CartONG participated by working with the WFP in Rome for the LogCluster to help build and maintain a geographic information database. It concerned mostly the transport infrastructure (relief work logistics corridors, roads, warehouses, ports...). All of the maps were then made freely on the logclusterwebsite. At the end of the contract, the CartONG staff was absorbed by the WFP.

Another part of the mission consisted in a Liberia field mission whose aim was the production of maps as well as maintenance of spatial data concerning the state of the roads to facilitate the transportation of food following the troubles in the Ivory Coast (that lead to numerous people finding refuge in Liberia).

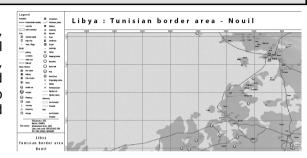


## **■** International Committee of the Red Cross (Northern Africa)

Beneficiaries: ICRC Location: Chambéry

**Content:** Setting up an Arab Spring database

CartONG also produced maps for the IRCC concerning Lybia, Tunisia, Egypt, the Middle East and 100 overview maps of other countries of the world. All of this geographic data focused on specific themes such as communications, services, energy, socio-economic data to help understand the local context and render more efficient any action undertaken by the ICRC. CartONG also set up screencasts to help demonstrate how to use the ICRC Geoportal and participated with the crisis mapper community.



# ■ Acted (Lybia)

Beneficiaries: humanitarian community Location: Lybia

**Content:** Mapping for the Arab Spring in Libya and training of locals

For the Acted (and UNOSAT REACH) project, CartONG's field work comprised updating and detailing of the building and infrastructure database on Misrata and Benghazi, through the analysis of satellite images. This helped to estimate damage. The project also contained a capacity building component with the training local technicians.



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## Médecins Sans Frontières (Libya)

Beneficiaries: MSF Location: Chambéry

**Content:** Mapping for the Arab Spring in Libya

In a similar project, different maps were produced for MSF on several Libyan towns (Misrata, Benghazi, Ajdabiya and surrounding regions) to help understand the urban context of these towns at the center of the conflict- these were paper maps for operational purposes and e-data.

## **■** International Organisation of Migration (Haiti)

Beneficiaries: humanitarian community Location: Haiti

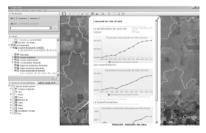
Content: The aim was to help build the database concerning risks for Internally Displaced Populations

The aim of this mission was to use maps to help reduce, prepare for and manage the risks associated with natural disasters in Haiti, whilst contributing to humanitarian activities, reconstruction and capacity building of the governmental institutions in general. CartONG therefore helped supervise and organise data collection and analysis as well as the production of appropriate maps and web content concerning IDPs, cyclonic risk zones, the state of buildings and also census sectors in Haiti.

# Local economic development with the Ivory Coast cashew nut WebGIS

**Beneficiaries**: cashew nut producers and buyers **Location**: Chambéry

Content: Using geomatics to facilitate exchanges between buyers and sellers on the cashew nut market



CartONG provided support for Rongead as part of a call for projects with the Fondation de France for the structuring of data linked to producers and to the promotion of the cashew nut in the Ivory Coast. The collaboration started with the creation of a web database of the producers and negotiators concerning the cashew nut Ivory Coast transactions with the setting up an information system of the exchange rate of the cashew nut from producer to seller. Then a Google Earth file was created for public outreach to raise awareness on sustainable agriculture and the cashew nut exchanges.

# Capacity building

# **■ Google ReDD & deforestation**

**Beneficiaries**: NGOs working on carbon models **Location**: Vietnam **Content:** Supplying tools and an E-learning module to map deforestation

In the continuity of the Google REDD+ project of publication and mapping of deforestation and forest degradation, CartONG worked more specifically on refining the carbon projection model which was used in Vietnam to be published as Open Source, to help develop sound and standardized approaches and tools to account for carbon stocks and flows in forest and alternative land use. The Carbon Budget and Projection Model projects gains and losses in different forest carbon pools.

CartONG is creating an e-learning module on these questions to facilitate the training of actors and potential actors on similar projects worldwide and allow them to plan and conduct a REDD+ project with local communities. The E-learning platform is meant to contain four modules: Forest Inventory, Carbon Model, GIS and Remote Sensing All modules will be based on Open Source Tools to make them easily deployable by grassroot level organizations. The Lectures in GIS on Quantum GIS, the Forest inventory as well as the lessons in Remote



Sensing in GRASS have been completed in 2011. In 2012 these will have to be added to the E-Learning platform, which in itself is based on Moodle, an Open Source program as well.

To determine potential users' needs, a survey was set up (The results and report are available <a href="here">here</a>).

#### GiZ Buffer Zone Mapping project

This project was not a classical CartONG project since it was conducted under commission of CartONG but was not managed by CartONG. The buffer zone is situated around Phon Nha Khe Bang National Park and the project dealt with spatial component which was a relevant part of the overall Buffer zone management plan.

The main objectives were data scoping through research and meeting all relevant stakeholders, design for relevant data collections and integrating all data in a spatial database from which buffer zone maps were created. The project was accompanied by a GiZ intern for three months and consisted of two missions to kickstart and to close the spatial component of the buffer zone management plan.



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#### To take the organizations' skills to the next level

One of CartONG's main aims is to transfer its skills and knowledge towards other actors of the relief work field, we therefore use specific training sessions to achieve this aim. In 2011 the association therefore organised sessions for training centers -three day session for Bioforce (water specialist and logistic specialist), for UNITAR/UNOSAT training groups, for universities or at specific events (International Festival of Geography of St Dié des Vosges or the Brindisi Logistics Response Team training session). Additionally, project internal workshops were set up to train for instance nutritionists and enumerators on the use of mobile phones for surveys and develop SOPs in collaboration with them.

Concerning different projects CartONG also tries to show the importance of e-learning modules. For example, two peoples worked on the UNHCR & ICI elearning screencasts.

These training sessions and tools assist in making mapping more widely known as a tool to help manage humanitarian crisis as well as training the different actors that can participate in the data collection thanks to the new geographic information technologies.

#### In 2011 CartONG also worked on:

- The revamp of the website built for collaborative work it is taking time as it is done with little funds and a lot of volunteer work, CartONG needs more resource.
- Setting up a partnership with APDER and ACAPS
- Testing applications, devices and gadgets which are needed for mobile data collection, especially in the areas of power management

# 2011 budget analysis

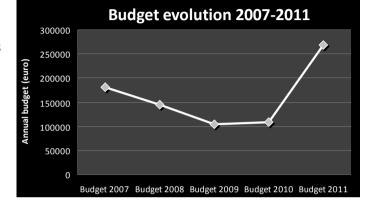
The budget of the NGO this year was 248000€, which corresponds to the largest budget since the founding of the NGO and 2,5 times the budget of the preceding year, with 11 staff members

corresponding to 4 FT over the year.

The functionning mode is that of providing services even before the project implementation (a different functioning mode from 2007). Even with the Haïti, Lybia and the short missions for the UNHCR, there is only a spall part of mission expenses, which can be linked to the 2 staff members based in Rome for 9 months. In terms of project size for 2011:

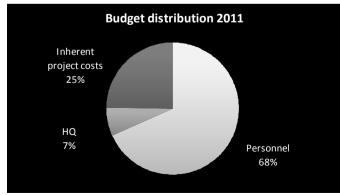
- two projects <75000€
- 5 projects between 15000€ and 20000€
- 3 projects <5000€

There are still nearly no institutional funding, which would help CartONG have a little bit more autonomy in their actions, in particular in crisis management - the feedback of the past years make the NGO the ideal actor to step back and determine the most propitious mapping actions to undertake for the benefit of the entire humanitarian



community. Working with other NGOs this year to unify skills and funding, the association also acquired the accreditation of important aid donors, such as ECHO/Fondation de France while setting up a partnership with Rongead or the CNES (Centre National d'Etudes Spatiales) with Immap.

90% of the funding still comes from the services provided- but having a working capital makes it easier to initiate projects or advance expenses linked to the expertise provided (while past years payment did not always occur within the required time). For productivity reasons, 10% of the budget is today allotted to engaging consultants. Although being advantageous in certain ways, on the long-run it does not help ensure the sustainability of the organisation, as the consultants sometimes have to be trained and this capacity building cannot be seen as an investment if it is not directly CartONG staff that benefit from it.



With the number of projects over 2011, the organisation has managed to set up its own funds to a certain extent, which, added to the little surplus of former projects, should help revamp the website, cover the GeONG expenses, intervene during crisis situations

Du fait des nombreux projets et d'un peu plus de liberté sur la gestion des fonds perçus en 2011, l'ONG a pu se créer quelques fonds propres. Ces derniers s'ajoutent à ce qui lui restait des précédents projets depuis la création. Ces financement devraient permettre de développer la refonte du site Web, de couvrir les frais du futurs GeONG, éventuellement d'intervenir lors de crises d'urgence, awareness-raising... In 2011, the organisation did not receive any private funding but receives support from

We can mention that the work and actions of the volunteers, that represents 20% of the budget, has know a large increase this year, which should moreover continue in 2012. However, the planned budget of 2012 is being revised downwards, because some of the CartONG staff has been hired by our mandated organizations.

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#### **■ Perspectives for 2012:**

- Two Mobile Data collection projects for the UNHCR
- Finalize the REDD+ E-Learning Project; publication of carbon model, creation of all Moodle modules, outreach campaign
- Finalize the first stage of the NOMAD project; closing workshop in March 2012; second stage is finding new donors and roll-out of the services
- Developing more classroom and online training modules on GIS
- Organization of the GeOnG 2012 (<a href="http://geong.cartong.org">http://geong.cartong.org</a>), the 5<sup>th</sup>-6<sup>th</sup> November (save the date!)
- Different projects linked to deforestation of indigenous populations' territories in DRC
- Different training sessions/interventions: Bioforce, Carthagéo & PED Masters ...
- Different events: stand at the salon des solidarités (4-5 june), present at the UNHCR mission Urgence et Information Management, "Marché des continents in Chambery", ESRI for the UN, conference francophone ESRI 2012...
- Development of the work of the volunteers through the use of the website and with actions and events.

#### More information:

www.CartONG.org

http://fr.twitter.com/#!/assocCartONG

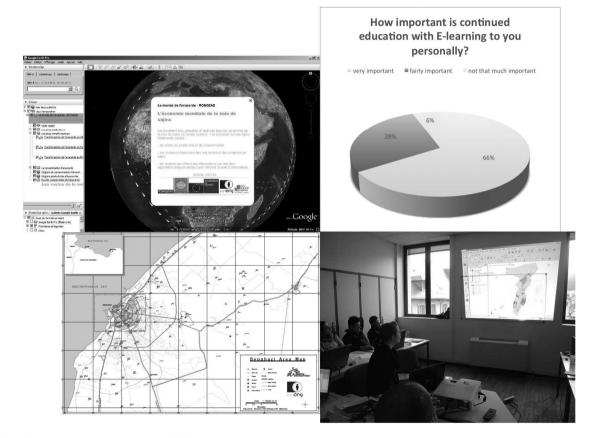
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