

"Aid in the wrong place is no aid at all"

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Place of work: MapAction
Position: Operational Support Volunteer

MapAction is an NGO, voluntary group, that responds during natural disasters and conflicts, to make best sense of the information available by mapping it.

What does MapAction do?

During an emergency, MapAction works to develop a common operational picture that can be used by first responders and aid agencies to better coordinate their resources. We've worked closely with EU and UN groups, including UNICEF. Maps and spatial data are immensely powerful, transcending language barriers and acting as an ideal method of information communication.

How does MapAction make use of Quantitative Methods in its work?

MapAction performs a number of very important roles from information management to providing mapping and I.T. capacity. In terms of Quantitative Methods, we are the

focal point of data coming in from all corners, in all formats and at various levels of quality and accuracy. Our first job is to help make this data 'mapable' – to transform it from columns of numbers and scrawls on paper to useful spatial information or info-graphics that convey, as accurately as possible, the situation and the context. MapAction volunteers understand the power of a well-designed map as well as the pitfalls of a poorly designed one. We act as guides to help people understand the map, what was done to the data to get to the information and the 'quality' of the information. Good maps, used effectively, can make huge impacts. We use a range of mapping software, such as ArcView (by Esri UK) – many of these may be covered in introductory courses during a Geography degree.

What levels of quantitative skills are used at MapAction?

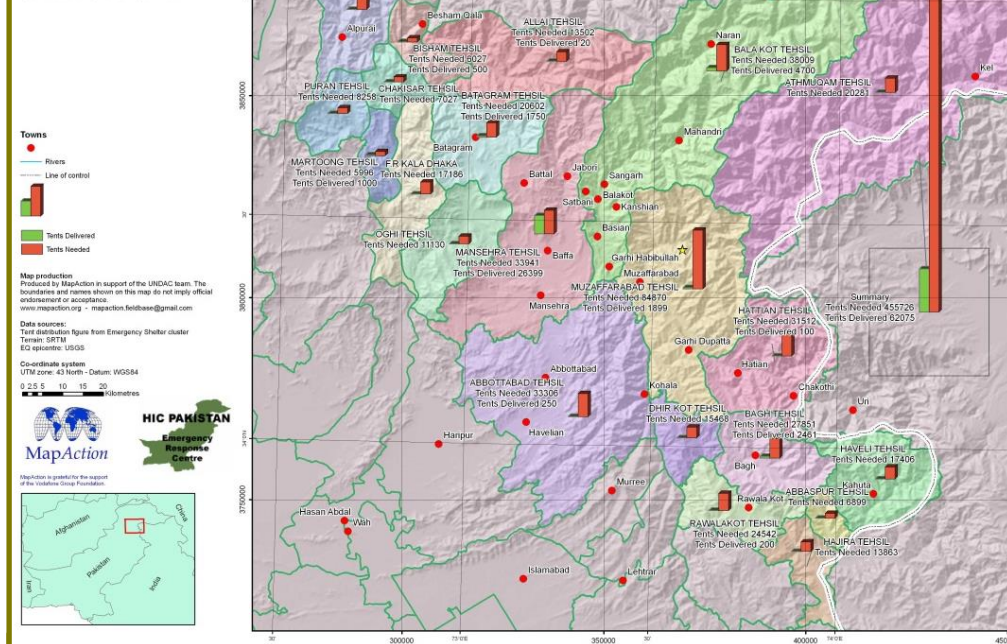
The skills required are very dependent on the needs of specific clients we might be working. Sometimes, they may want a simple plotting of collected GPS points. Other times, there are more complex data management issues with data from multiple spread sheets that are cross-linked to different spatial areas; some at village level, some at town level and others at district level – so spatial analysis techniques need to be employed. We also need to deal with data in different projections, datums and other regional oddities. As such a wide range of skills and experiences are called upon, covering everything from the simple to the complex.

How do you maintain and develop your skills in Quantitative Methods?

Continued learning is very important: all our volunteers are GIS professionals in their 'real lives' and will most likely keep their skills up to date through their own CPD programmes.

Pakistan Earthquake Disaster Tent Distribution figures by Teshil 20/10/05

Reference number: T133
Created: 21 Oct 2005, 09:00hrs

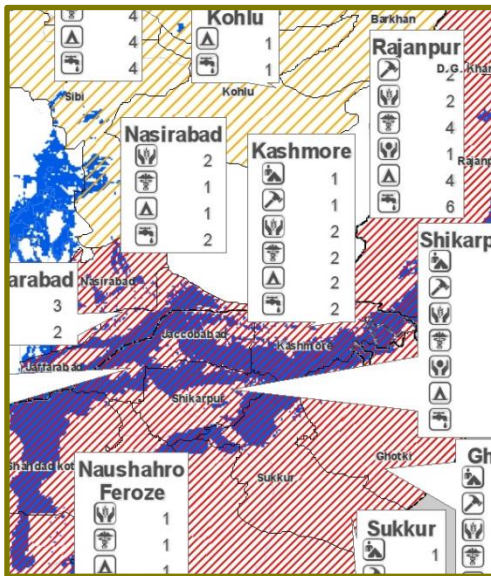


Pakistan Earthquake Tent Distribution

The above map was used by agencies during the 2005 Pakistan earthquake, and is derived from figures retrieved from the Shelter cluster. The group quantify shelter requirements across the Teshils (an admin unit) – data were collected at a camp level and then aggregated up to a broader level for planning and administration purposes. This visualises important data, highlighting the areas still in need and the severity of that need. These graphics can monitor the impacts of humanitarian intervention; increased efficiency can mean lifesaving resources reach more of those in need.

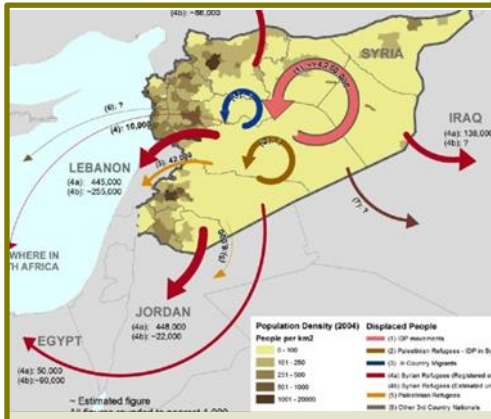
"Our main task has been to facilitate the saving of lives through the provision of accurate and useable geographic information"





Agencies Operating in Pakistan

A Who-What-Where (3W) map is a very tricky map to achieve, as it aims to show geographically, both in terms of numbers and type, NGOs and organisations at a certain level of administrative boundary. The data are collected with some locations being very accurate (via GPS) others vague and abstract; "they're somewhere in the north of the region". This data is collected, collated and cleaned before being transferred to map with all sorts of decisions being made on appearance. This is important, information presented badly can do more harm than good. The danger with this map is that because the label points to a specific point on the map, some readers will assume that 'x' marks the spot of the organisation.



Syria Population Movements

This map serves a useful purpose as an infographic. Information collected from various agencies facilitating the resettlement of Syria refugees in host communities and IDP/refugee camps has been synthesised and abstracted to produce broad indicators of population movements between regions. This type of graphic is useful for planners and media who require an overall feel for the situation without needing the detailed narrative.

However, we also share knowledge among the volunteers in our regular training. Formal training courses through Esri UK and other providers fill specific technical gaps with software. All volunteers tend to be technically minded, curious and happy to self-improve.

What skills do people wanting to work for MapAction need?

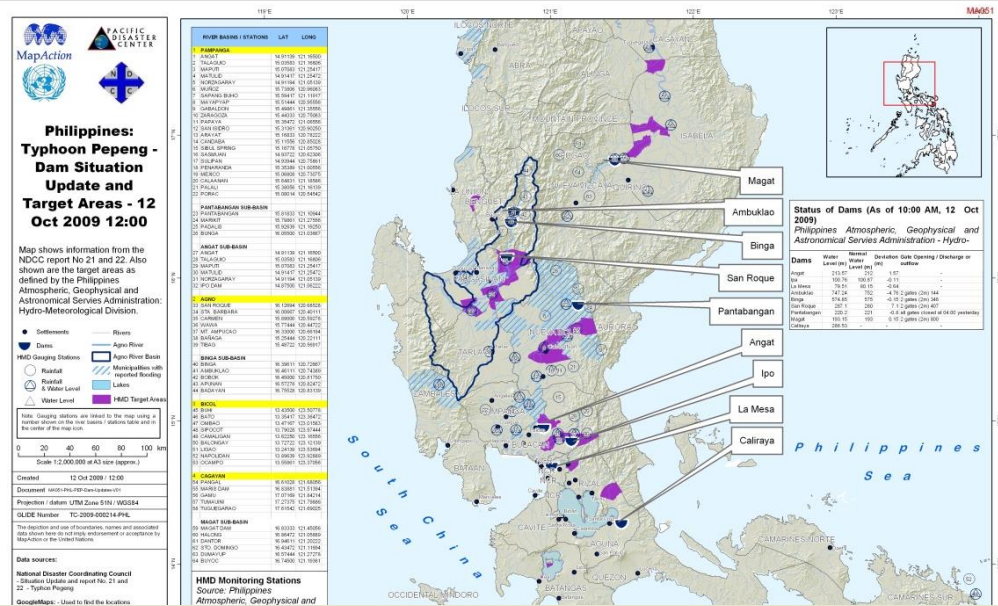
Experience in working with GIS is important – no-one knows everything and experience gives the necessary bedrock on which sound decisions can be made. MapAction tends to select its candidates from career professionals with at least 3 - 5 years' experience; preferably with overseas travel. This isn't to say you can't make a difference with less experience.

We recognise that everyone needs to start somewhere, so some of our core skill sets include:

- An analytical mind
- Problem-solving
- Positive thinking
- Ability to operate with autonomy and with confidence
- Good experience in desktop GIS software (Esri preferred)

Workplace studies

www.quantile.info



Typhoon Situation Mapping

This map displays the results of a simple flood analysis exercise, on which population centres were then superimposed to assess impact on affected areas and populations during a typhoon. The data were collected from a number of sources; meteorological both national and international, flood plain data from several sources and satellite imagery. Individually these data mean relatively little – combined the information can be lifesaving.

- Knowledge of data formats
- Spatial analysis skills
- Understanding of general cartographic principles

What is the value of Quantitative Methods skills?

Quantitative Methods are a very important part of what MapAction does in the field – we help transform, consolidate and illuminate information from a sea of data; generated in the minutes, hours and days of an emergency event. QM is a toolbox that allows us to tackle all manner of data issues with confidence and conviction.

To find out more about where Quantitative Methods can take you, visit the following:

Quantile website:

www.quantile.info

RGS-IBG website:

www.rgs.org

Royal Geographical Society with IBG www.rgs.org