

## Turks and Caicos 2ND UKOTs GIS-Workshop: Learning, Sharing, Coming Together and Building Collaborations across Territories.

By iLaria Marengo, First published 15<sup>th</sup> February 2015

Turks and Caicos Islands (TCI) hosted, from the 2<sup>nd</sup> to the 6<sup>th</sup> of February, the second UKOTs GIS workshop which saw the participation of representatives from the Caribbean (Anguilla, BVI, Bermuda and Cayman), Europe (Gibraltar), the South Atlantic (the project manager of the IMS-GIS data centre for Falkland Islands, Ascension, Saint Helena, Tristan da Cunha and South Georgia), Joint Nature Conservation Committee (JNCC), Environment Systems, and National Oceanography Centre (NOC). The event was fully supported and organised by the JNCC and by TCI Department of Environment and Maritime Affairs (DEMA).

The workshop entitled “understanding our islands: how to get the best out of our GIS and data” was focussed on achieving the following goals:

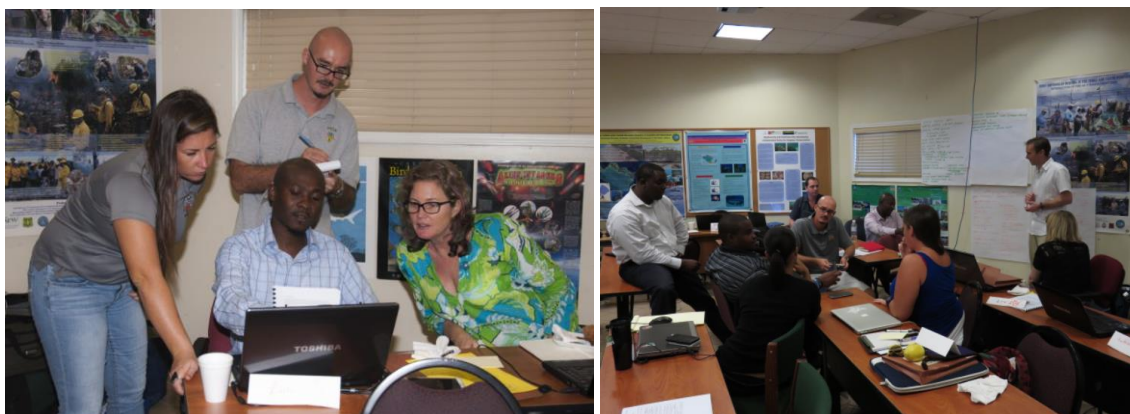
- Providing members of TCI governmental departments with a training course in QGIS to allow them to become familiar with the open source program and demonstrate that it is a valid option to the proprietary and more expensive ArcGIS;
- Identifying data priorities for TCI and finding solutions on how to address them in terms of GIS applications and data management;
- Developing GIS and data management strategies to obtain long term benefits, such as standardisation of data, networking and data sharing, but also immediate gains, e.g. GIS and Remote Sensing based spatial analyses to support decisions on the islands’ policy priorities;
- Looking at the main components of data management, which are people, data and systems and examine the way of tackling each one. The presentations on effective case studies delivered by each of the OTs offered “food for thought” and a starting point for discussion;
- Drawing action plans to implement a sound data strategy in each territory and take forward the best practice of using GIS and Remote Sensing techniques as decision support tools.

The first two days of the workshop were entirely dedicated to the training in QGIS and had the participation of four TCI governmental departments: DEMA, Disaster Management, Planning and Surveying/Mapping. The training, led by Dr Katie Medcalf (Environment Systems) with the help of Dr iLaria Marengo

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(IMS-GIS data centre project manager), explored how to import the data, how to run basic vector analysis, how to create a map, and highlighted the best practice for structuring tabular data. In addition, practical examples of how Remote Sensing can be advantageous for evaluating environmental and ecosystem services were provided, as well as how spatial databases store and analyse geographic data more efficiently. Participants learned how GBIF can play a role for data sharing and how to upload/download data from it.

Besides the practical exercises, time was also spent discussing the current data management in TCI. Problems were identified and possible alternatives and solutions were found and translated into an action plan which should work as a starting point for the next months. The positive aspect of the first two days was the enthusiasm and the determination showed by TCI participants. Their genuine interest and desire to learn how QGIS works and how it can be advantageous to their project was a motivation for those delivering the training. TCI is currently facing two main problems: communication and data sharing among departments and consequently the lack of organisation and a data management system. The most evident and appreciated result at the end of the first two days was to see everybody discussing and finding solutions together round the table.



The excitement and interest in GIS and data strategy increased even further when the other UKOTs joined the workshop on the 4<sup>th</sup> of February. The discussion on how to make the most out of spatial data became wider and the presentations of projects and activities carried out in the Caribbean, Gibraltar and the South Atlantic were extremely inspiring.

Stephen Warr from Gibraltar wowed the audience once again with his demonstration of the advanced use of GIS and 3D modelling for environmental and planning purposes. Many people desired to have the drone and the plane with fitted camera that Jeremy Olynik from the Cayman showed in his

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presentation. Both are very useful technologies for getting high resolution data of areas that are not easily accessible. It was particularly interesting to learn about outreach activities from Rozina Norris-Gumbs which involve taking GIS to the schools and hosting a GIS day every year in BVI. Andre' from Anguilla presented a superb use of remote sensing and GIS techniques to assess ecosystem services for his island. His motto "seeing is believing" was clear: to the politicians' eyes maps realised from validated and sound data are more effective and compelling than reports. Mandy Shailer explained to us the way in Bermuda spatial data from aerial photography offer evidence and support for conservation and planning studies. iLaria Marengo, who represented the whole SA UKOTs, described the advantages of having a metadata catalogue online and how the data strategy for the entire region tackles issues such as data accessibility and data licence agreement.

Presentations from Tara Pelembe and Steve Wilkinson (JNCC), Katie Medcalf (Environment Systems) and Alan Evans (NOC) were very important as they described how their organisations can assist the territories in bidding for grants, addressing data management issues, providing technical consultancy on spatial analyses, buying basic equipment, and accessing bathymetry data and AUV instruments for further data collection.

The final key messages were that: a data system that supports the data organisation, management and sharing is fundamental; data need to be validated and quality checked before their use; metadata allow longevity and discoverability of the associated data; people should be trained and become familiar to GIS and Remote Sensing techniques as their application as analytical tools improves considerably the way of presenting geographic information and helps to make better decisions.



Although the workshop was very intense and stretched the full day, everybody had the opportunity to enjoy for one evening a local fish fry event close to a white sandy beach and turquoise sea. On Saturday the field trip to the pine trees restoration areas and to the nursery was guided by Naqqi, a real encyclopaedia of TCI plants and history, with the logistic support of Roddy, Luke and Kathrine. Finally, Sunday was time to relax on the wonderful beaches of TCI:

sunbathing, swimming, bargaining the price of conch shells and then discovering afterwards that there were plenty on the beach!