



# Chart Adequacy: Workshop and GEBCO Training

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## Abstract

In July, 2015 the first NOAA Chart Adequacy Workshop was held in Silver Spring, Maryland, USA. Following a three-day workshop (14th to 16th July, 2015), four Nippon Foundation GEBCO students stayed at NOAA for an additional 10-day training at Office of Coast Survey's Marine Chart Division. The key objective of the NOAA Chart Adequacy Workshop was to demonstrate techniques to evaluate the suitability of nautical chart products using chart quality information and publicly-available information. The attendees were cartographers, hydrographers and potential chart producers from hydrographic offices and government agencies around the world. The nations of the participants in the workshop included: Indonesia, Israel, Japan, Kenya, Malaysia, Philippines, South Korea, Sri Lanka, United Kingdom, United States and Venezuela. Through instructor presentations and GIS laboratory exercises (provided by Dr. Shachak Pe'eri and Lt Anthony Klemm), the participants generated the key layers that are involved in the NOAA procedure. A vessel traffic layer was generated by classification of navigational routes using Automatic Identification Systems (AIS) information. A bathymetric difference layer was generated by identifying areas that showed significant bathymetric changes identified by comparing Satellite-Derived Bathymetry (SDB) or other surveys of opportunity, with the existing chart. A hydrographic characteristics layer was generated by classification of chart quality information. Chart data (including the smooth sheet sounding sets) for the procedure were provided in a vector format with the appropriate metadata according to IHO S-57. Raster Navigational Charts were also used as a background and as a reference for the Bathymetric Difference layer.



Workshop participants with MCD Chief John Nyberg and his team

## Workshop Goals

1. Train an international group of hydrographers and cartographers.
2. Discuss and review a procedure for assessing chart adequacy based on the depth, main traffic routes and the last available survey in the area.
3. Present different publicly-available datasets and their usage for charting.

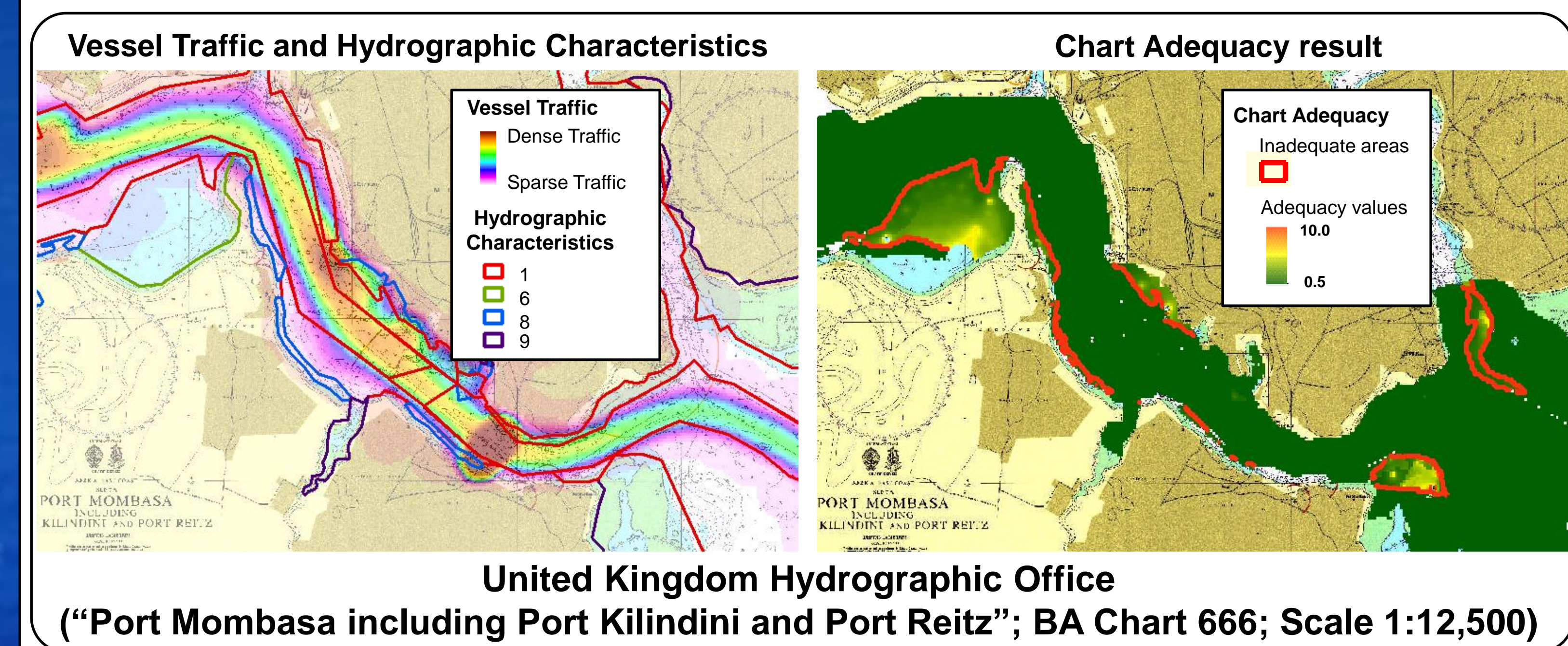
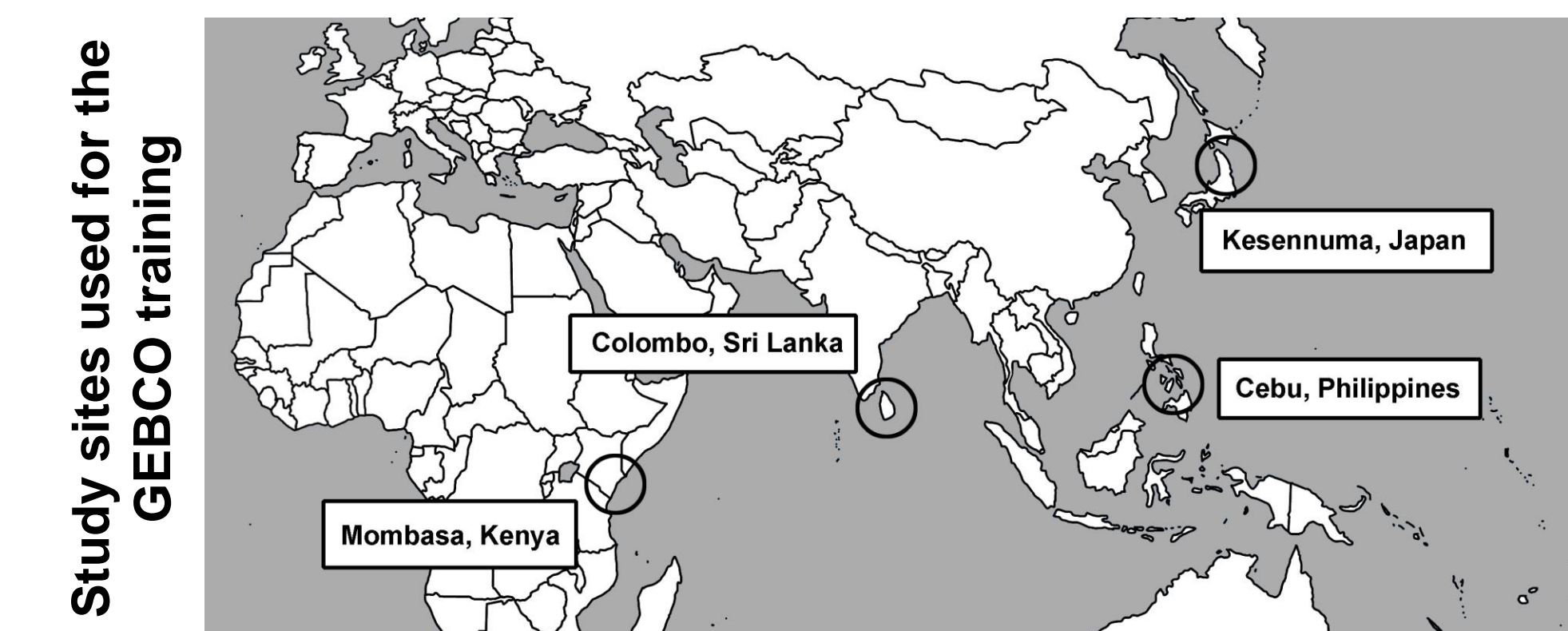
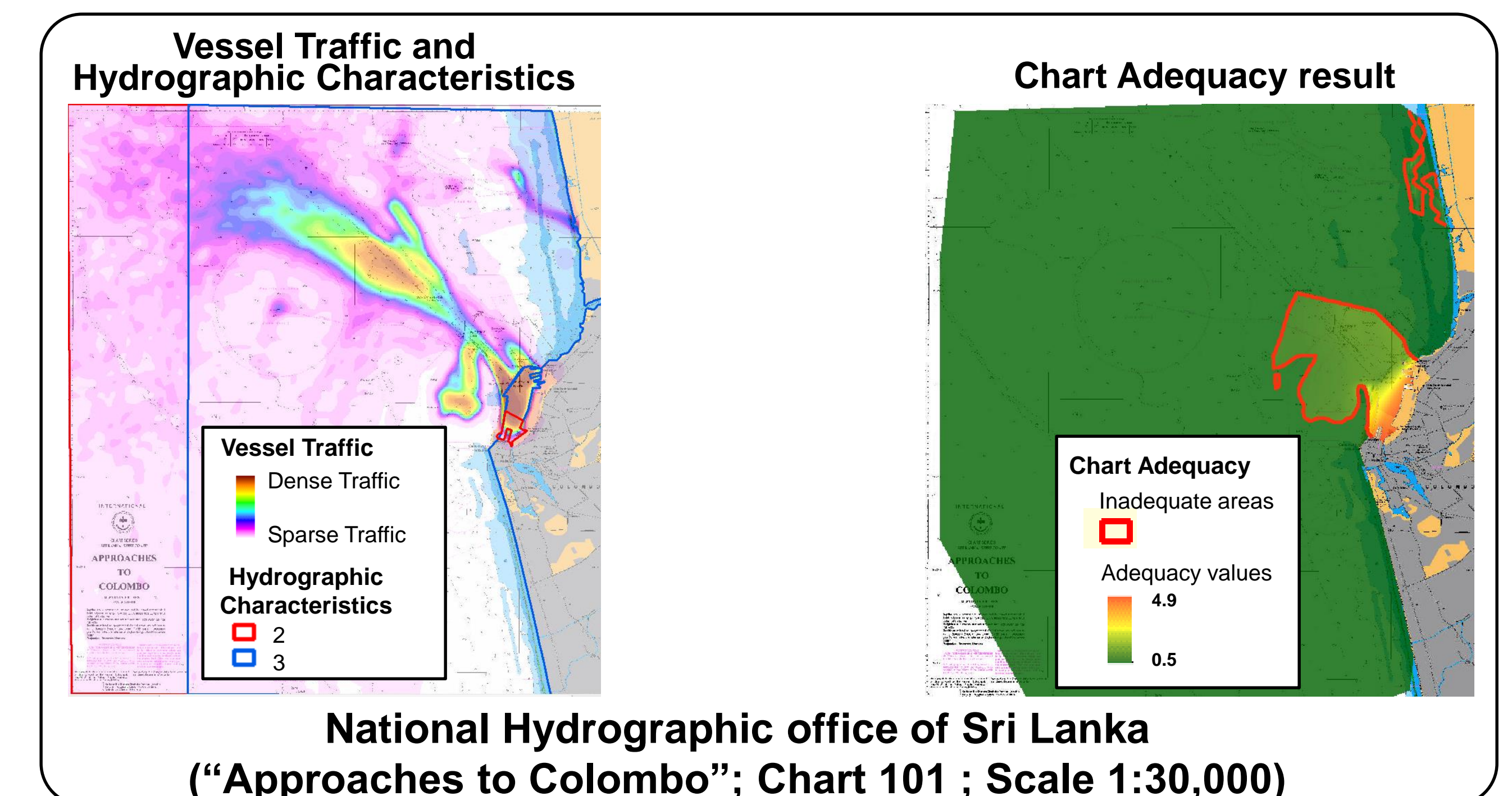


Workshop participants meeting with Dr. Walter Smith and Dr. Karen Marks

## Next Workshop

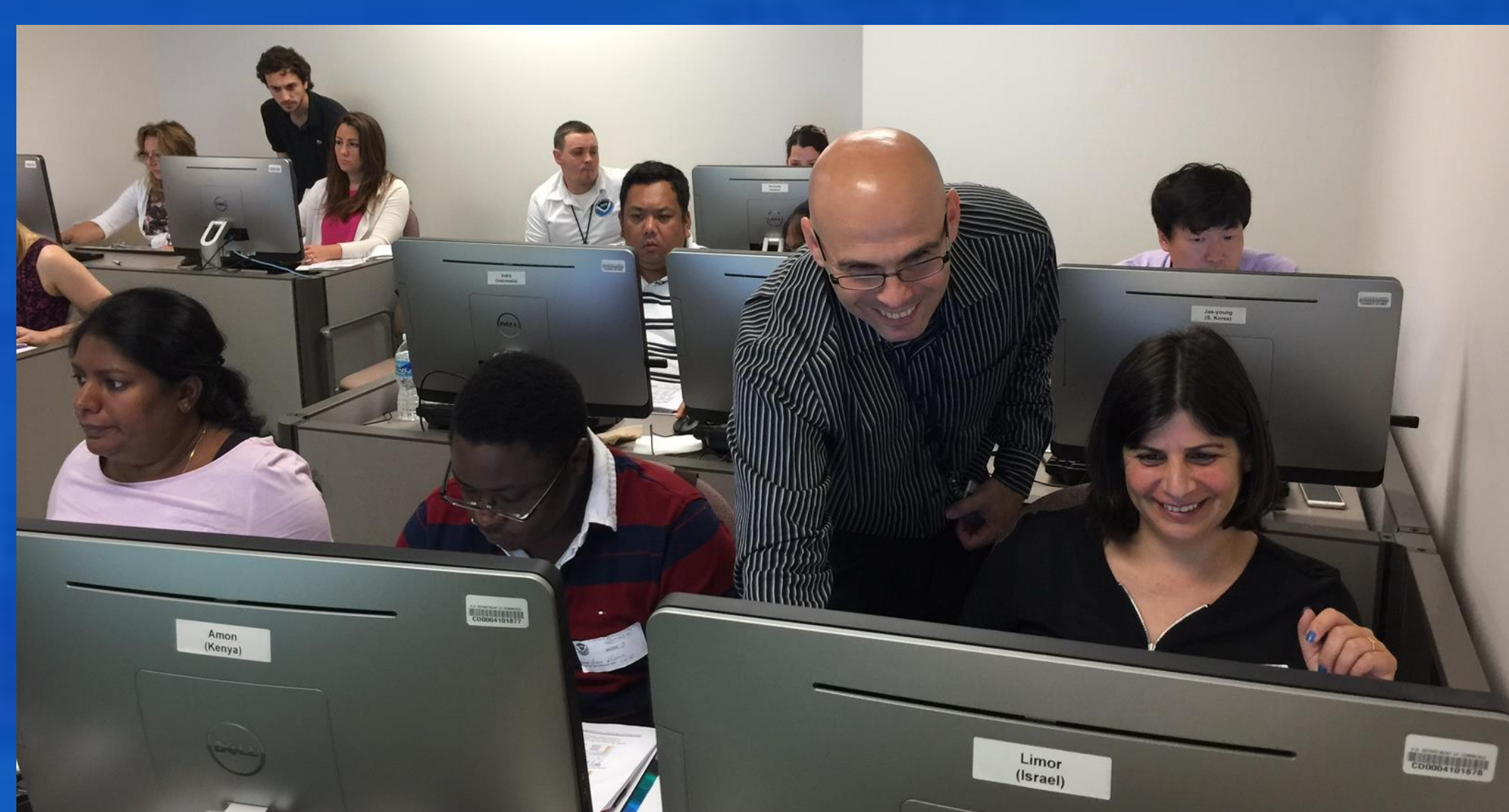
The next Chart Adequacy Workshop is scheduled for July, 2016 (Silver Spring, MD).

## Results from the GEBCO training



## Acknowledgements

The workshop was conducted with the help and support from NOAA, UKHO, GEBCO and JHC NOAA Grant NA10NOS4000073.



Workshop participants during lab work