

#### **A Darwin Initiative Report**



# Report on Biocultural Diversity & Conservation Training Workshop

## **Part 2: Participatory GIS**

13<sup>th</sup> – 14<sup>th</sup> November 2010

**Inobong Research Station, Penampang** 

**Compiled by Adam Murphy** 

#### 1. Introduction

This report details Part 2 of a two-part training workshop, which was held successfully on the 13<sup>th</sup> and 14<sup>th</sup> of November 2010. The workshop was hosted by Sabah Parks at the Inobong Research Station, and was attended by members of the Resource Catchment Assessment (RCA) field team. The Global Diversity Foundation was responsible for overall organisation and coordination, and the training programme was developed jointly by GDF and the workshop trainer.

The training workshop was designed to contribute towards Component 3 of the Darwin Initiative project "Participatory Approaches for Nomination the Crocker Range Park as a Biosphere Reserve".

#### 2. Programme

The overall objective of the training workshop was to provide technical training in the use of GIS software, in order to consolidate training provided by Mr. Muhammad al Hadi Ali Akhbar (formerly of the department of biosciences in Universiti Teknologi Malaysia, currently managing director of Gates Solutions Sdn. Bhd.) in March 2010. The main aims of the training were to provide RCA team members with a refresher on the basic GIS techniques taught in March, and to introduce some more sophisticated techniques and concepts.

The two-day programme began on the morning of November 13<sup>th</sup> 2010 with software installation and an overview of the basic applications in the programme ARCGIS. This then proceeded to a practical session, in which participants learned how to take a digital image of a three-dimensional model (using the Buayan mini-model), upload the image in ARCGIS, and georeference the resulting raster image by cross-referencing control points on the image with GPS readings taken in the corresponding locations. Participants then learned how to create new shapefiles and digitise features from the raster image, and spent the remainder of the day practising this technique with assistance from the trainer.

On November 14<sup>th</sup>, Muhammad al Hadi began with a presentation and discussion on coordinate systems, geographical transformations and map projections in GIS. The remainder of the workshop was then spent as a practical session in which participants learned and practised techniques for assigning map projections to shapefiles, and the correct methods for reprojecting data (Appendix 1). The session concluded with an evaluation session of both this workshop and the preceding workshop held from November 7<sup>th</sup> to 12<sup>th</sup> (see Annex 6 for further details).

The training workshop was conducted entirely in Malay, to ensure that all participants were able to easily understand what was being taught and felt comfortable to voice questions and opinions.

#### 3. Participants

The training workshop was attended by 12 RCA team members, comprising 11 Community Researchers and one member of Sabah Parks staff (see Appendix 2 for full participant list). Attendance was limited since the RCA team was divided between this and a concurrent GDF training workshop on Participatory 3-Dimensional Modelling being held in Kinabalu Park (see part two of this Annex for further details).

#### 4. Trainers

The workshop was delivered by Mr. Muhammad al Hadi Ali Akhbar. Hadi first began training GDF community researchers in 2009 along with his colleague Dr. Mohammed Shahir Shamsir bin Omar of the department of biosciences at Universiti Teknologi Malaysia (UTM). Hadi is currently managing director of the mapping and GIS specialist consultancy firm Gates Solutions Sdn. Bhd. He collaborated with GDF staff ahead of the workshop to develop the training programme, and was on-hand at the workshop venue throughout to give additional advice and assistance to participants during the evenings.

#### 5. Outputs

12 RCA team members (representing Sabah Parks and Community Researchers from Ulu Papar, Bundu Tuhan and Kiau) received training in the use of ARCGIS software, including georeferencing raster images, creating shapefiles, digitising data from raster images, assigning map projections and reprojecting data into different coordinate systems.

This training workshop built upon previous trainings delivered by Hadi and staff of Universiti Teknologi Malaysia. The workshop also served as a foundation for future mapping training delivered by Mohammed Shahir Shamsir bin Omar and his colleagues from UTM in 2011. Hadi has also expressed an interest in delivering further training to GDF community researchers in the future.

#### 6. Evaluation

At the end of parts I (detailed in Annex 6) and II (this report) of the training workshop, participants were given evaluation forms. Whilst the evaluation forms were completed on a voluntary basis, all 12 participants returned completed forms (refer to Annex 6 for full analysis of the evaluation). Responses to the training workshop were overwhelmingly positive, with the majority of respondents indicating that the duration, difficulty and content of the workshop was just right. Respondents were keen to participate in any future training workshops of this type, although some felt that the content was a little too difficult, and asked that it be made simpler in future sessions.

### Appendix 1 – Workshop Programme

# A Darwin Initiative Project Participatory Approaches to Nominating the Crocker Range Biosphere Reserve (2009-2012)









### **Biocultural Diversity & Conservation Training Workshop**

# Tentative Programme Part II: Participatory GIS 13-14 Nov 2010, Inobong Research Station, Penampang

Delivered by: Muhammad al Hadi Ali Akhbar, Gates GIS Solution Sdn. Bhd.

Date	Time	Activities
13 Nov Sat	8.00am – 9.00am	Basic introduction to GIS mapping and ARCGIS software
	9.00am –10.00am	Practical:  Recording a digital image of the Buayan-Kionop mini 3-D model
	10.00am -10.30pm	Tea break
	10.30am – 12.30pm	Presentation & Practical: Georeferencing raster images in ARCGIS
	12.30pm – 1.30pm	Lunch
	1.30pm – 3.00pm	Presentation: Creating new shapefiles and digitising raster data in ARCGIS
	3.00pm – 3.30pm	Tea break
	3.30pm – 5.00pm	Practical: Digitising data from the mini 3-D model raster image

Date	Time	Activities
14 Nov Sun	8.00am – 8.30am	Recap & Review: Proceedings from previous day
	8.30am – 10.00am	Practical: Digitising data from the mini 3-D model raster image (continued)
	10.00am –10.30am	Tea break
	10.30am –12.30pm	Presentation: Projections and transformations in GIS
	12.30pm – 2.00pm	Lunch
	2.00pm – 3.00pm	Presentation & Practical: Assigning map projections, reprojecting data, and performing geographic transformations in ARCGIS
	3.00pm – 3.30pm	Tea break
	3.30pm – 4.30pm	Practical: Assigning map projections, reprojecting data, and performing geographic transformations in ARCGIS (continued)
	4.30pm – 5.00pm	Summary: Review and evaluation of the training workshop