



PROJECT REPORT ACTIVITY ON GEOGRAPHIC INFORMATION SYSTEM

CoLUPSIA Capacity Building In Spatial Planning Training

Central Moluccas District, Moluccas Province

Danan Prasetyo Hadi

2012

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1. Introduction

The Collaborative Land Use Planning and Sustainable Institutional Arrangements for strengthening land tenure, forest and community rights in Indonesia (CoLUPSIA) project is a research project funded by the European Union for four years (2010 – 2013) and conducted by CIRAD in collaboration with the Center for International Forestry Research (CIFOR), Toma Lestari (ToMA), University Pattimura (UNPATTI), University of Gadjah Mada (UGM), HuMA, and TELAPAK. The CoLUPSIA project sites are located in two sites: Kapuas Hulu District (West Kalimantan Province) and Central Moluccas District (Moluccas Province).

The overall objective of the project is to avoid deforestation and environmental degradation by supporting the development of sustainable institutional arrangements promoting land policies and instruments including the local community. While the specific objective to be achieved at the end of four years is to establish collaborative and equitable Land Use Planning (LUP) and Natural Resource Management (NRM), leading to the design and testing of new institutional arrangements, environmental policies and pro-poor financing instruments based on more secure land tenure and community rights.

This report describes one of the expected results related to capacity building which is relevant to the Land Use (LU) development process (training methodology for mapping and land allocation process). This training was part of the CoLUPSIA project activities in Central Moluccas District, Moluccas Province. The expected impact was that all participants of the training will have skills in using Global Positioning Systems (GPS) tool for data acquisition, conducting GIS data processing and also analysis for defining land allocation zoning.

2. Overview of training activities

The training was conducted in collaboration with the Manusela National Park office (Balai Taman Nasional Manusela) of the Ministry of Forestry's conservation agency, and took place at the Manusela Nasional Park office in Masohi on 10-20 July 2012. The training was attended by nine participants including the Manusela Nasional Park office staffs, the

local government development planning agency (Badan Perencanaan dan Pembangunan Daerah-BAPPEDA) staffs and the local government forestry and plantation agency (Dinas Kehutanan dan Perkebunan) staffs (see Annex 2).

The objectives of the training are to build capacity in spatial planning for land allocation and land use planning using Geographic Information Systems (GIS) and CoLUPSIA methodology for collaborative land use planning, more specifically to introduce GIS as a supportive tool to land use planning and land allocation process; and to train local agencies staff on the CoLUPSIA methodology using GIS.

The training material consists of theoretical and practical starting on how to acquire and develop accurate GIS data from various sources including how to use Global Positioning Systems (GPS) tool in the field for data acquisition, how to better manage geographic data (GIS data management) by applying geodatabase topology for ensuring data integrity, how to conduct GIS data processing and analysis, as well as on how to create map representation (map layouts) according to cartographic standards. During analysis session were also introduced on how to perform sequence analysis using model builder application of the ArcGIS Desktop software with forest score analysis for defining land allocation into functional zones as the case sample. The agenda of the training can be found in Annex 3.

At the end of the training program on 20 July 2012, there was agenda for handover three new computers supported by European Commission project - Collaborative Land Use Planning for Sustainable Institutional Arrangement (CoLUPSIA) to the Manusela National Park office, the BAPPEDA office of Maluku Tengah regency, and the local government forestry and plantation office of Maluku Tengah regency.



Figure 1. Activities during the training session

Annex 1. List of Trainers

No	Name	Institution
1	Danan Prasetyo Hadi	CoLUPSIA - CIFOR
2	M. Agus Salim	CIFOR

Annex 2. List of Trainees

No	Name	Institution
1	Jumrin Said	Balai Taman Nasional Manusela
2	Andi Syamsu Hardian	Balai Taman Nasional Manusela
3	Cecep Setiawan	Balai Taman Nasional Manusela
4	Rajabu	Balai Taman Nasional Manusela
5	Muhammad Djunaidi Wattihelulu	Badan Perencanaan dan Pembangunan Daerah (BAPPEDA) Maluku Tengah
6	William Sahalessy	Badan Perencanaan dan Pembangunan Daerah (BAPPEDA) Maluku Tengah
7	Novaeldy T. Nussy	Dinas Kehutanan dan Perkebunan Maluku Tengah
8	Chairul Saleh Kumalutur	Dinas Kehutanan dan Perkebunan Maluku Tengah
9	CH. L. Wuritimur	Dinas Kehutanan dan Perkebunan Maluku Tengah

Annex 3. The agenda of Geographic Information Systems for land allocation training

Training on Geographic Information Systems (GIS) for Land Allocation Maluku Tengah Regency, Maluku Province 10 - 20 July 2012			
No	Day/Date	Time	Activity
1	Tuesday, 10 July 2012	09.00 - 10.00	Opening remarks
		10.00 - 10.30	Tea Break
		10.30 - 12.00	Introduction to GIS
		12.00 - 13.00	Lunch Break
		13.00 - 14.00	Introduction to GIS (continuation)
		14.00 - 15.00	Introduction to ArcGIS Software
		15.00 - 15.30	Coffee Break
		15.30 - 16.30	Introduction to ArcGIS Software (continuation)
		16.30 - 17.00	Review
2	Wednesday, 11 July 2012	09.00 - 10.30	GIS Data
		10.30 - 11.00	Tea Break
		11.00 - 12.00	GIS Data Acquisition
		12.00 - 13.00	Lunch Break
		13.00 - 14.30	Map digitization
		14.30 - 15.00	Coffee Break
		15.00 - 16.30	Map digitization (continuation)
		16.30 - 17.00	Review
3	Thursday, 12 July 2012	09.00 - 10.00	Introduction to Global Positioning Systems (GPS)
		10.00 - 11.30	Practical of using GPS
		11.30 - 12.30	Lunch Break
		12.30 - 14.00	Practical of using GPS (continuation)
		14.00 - 14.30	Coffee Break
		14.30 - 16.00	GPS data input into ArcGIS Software
		16.00 - 16.30	Review
4	Friday, 13 July 2012	09.00 - 10.00	Data preparation
		10.00 - 10.30	Tea Break
		10.30 - 11.30	Data preparation (continuation)
		11.30 - 13.30	Lunch Break
		13.30 - 14.30	Data preparation (continuation)
		14.30 - 15.00	Coffee Break
		15.00 - 16.00	Data preparation (continuation)
		16.00 - 16.30	Review
5	Monday, 16 July 2012	09.00 - 10.00	Table and Chart

		10.00 – 10.30	Tea Break
		10.30 – 12.00	Table and Chart (continuation)
		12.00 – 13.00	Lunch Break
		13.00 – 14.30	Map Layout
		14.30 – 15.00	Coffee Break
		15.00 – 16.00	Map Layout (continuation)
		16.00 – 16.30	Review
6	Tuesday, 17 July 2012	09.00 – 10.00	Spatial database
		10.00 – 10.30	Tea Break
		10.30 – 12.00	Query operation
		12.00 – 12.30	Query operation (continuation)
		12.30 – 13.30	Lunch Break
		13.30 – 14.30	Query operation (continuation)
		14.30 - 15.00	Tea Break
		15.00 - 16.00	Data Management
		16.00 – 16.30	Review
7	Wednesday, 18 July 2012	09.00 – 10.00	Introduction to Spatial Analyst
		10.00 – 10.30	Tea Break
		10.30 – 12.00	Practical of Spatial Analyst
		12.00 – 12.30	Review
		12.30 – 13.30	Lunch Break
		13.30 – 14.30	Introduction to 3D Analyst
		14.30 - 15.00	Tea Break
		15.00 - 16.00	Practical of 3D Analyst
		16.00 – 16.30	Review
8	Thursday, 19 July 2012	09.00 – 10.00	Automating geoprocessing using Model
		10.00 – 10.30	Tea Break
		10.30 – 12.00	Land allocation for zoning Kawasan
		12.00 – 12.30	Practical of land allocation for zoning Kawasan using ModelBuilder
		12.30 – 13.30	Lunch Break
		13.30 – 14.30	Practical of land allocation for zoning Kawasan using ModelBuilder (continuation)
		14.30 - 15.00	Tea Break
		15.00 - 16.00	Practical of land allocation for zoning Kawasan using ModelBuilder (continuation)
		16.00 – 16.30	Review
9	Friday, 20 July 2012	09.00 – 10.00	Review the overall materials
		10.00 – 10.30	Review the overall materials

			(continuation)
		10.30 - 11.30	Closing remarks