

Tropentag 2018, Ghent, Belgium September 17-19, 2018

Conference on International Research on Food Security, Natural Resource Management and Rural Development organised by Ghent University, Ghent, Belgium

Training on participatory spatial information management and communication

Zachmann, Rainer^a; Rambaldi, Giacomo^b

a Consultant International Agricultural Research, Training and Communication (rainerzachmann@hotmail.com) b Programme Coordinator, Ict4d, Technical Centre for Agricultural and Rural Cooperation (rambaldi@cta.int)

Abstract

Land grabbing and disputes over land ownership are serious issues that affect livelihood of farm families, environment, economy, social welfare and human rights, especially in developing countries. To address this challenge, the EU-ACP Technical Centre for Agricultural and Rural Cooperation (CTA, www.cta.int) conceived a Training Kit on participatory geographical information systems. The Training Kit offers building blocks consisting of 15 Modules from which trainers can design and build their own workshops according to the training needs of their audiences.

Keywords: Land grabbing and related training on ethics, participatory mapping, 3D modelling, GIS/PGIS, documentation, communication, advocacy

Background

Land grabbing and disputes over land ownership are serious issues that affect livelihood of farm families, environment, economy, social welfare and human rights, especially in developing countries. Farmers often do not know the value of their natural resources and the exact geographical data of their land. Documentation may not be in order or does not exist at all, and farmers may not be able to defend their land against political and economic interests. In many countries, indigenous and other marginalised people are not well-engaged in effective policy dialogue on issues related to the territories they use, manage and occupy.

The participatory creation of maps began in the late 1980s. At that time, development practitioners were inclined to use Participatory Rural Appraisal methods. The international conference on Mapping for Change in 2005 was a landmark event where 154 practitioners from 45 countries convened to discuss state of the art on participatory spatial information management and communication and its potential, constraints, opportunities and threats. At the conference and in subsequent on-line surveys, practitioners, activists and researchers identified the following constraints related to the spread of participatory geographical information systems (PGIS):

- the lack of reference materials for training potential stakeholders interested in participatory mapping;
- the spread of malpractice in participatory mapping, resulting in the abuse and misuse of local knowledge.

In response to these constraints, the EU-ACP Technical Centre for Agricultural and Rural Cooperation (CTA) conceived a Training Kit on participatory geographical information systems in partnership with the International Fund for Agricultural Development (IFAD). The project was launched during the first quarter of 2008. A number of development partners contributed to the outlining of the Training Kit during a Curriculum Development Workshop which took place in Wageningen, The Netherlands in April 2008.

The English and Spanish versions of the Training Kit were produced over a period of two and a half years (2008-2010) with the contributions of more than 40 international specialists representing civil society and academic and development agencies from across the globe.

Rationale of the Training Kit

The Training Kit has been developed with the objective "to support the spread of 'good practice' in generating, managing, analysing and communicating community spatial information". Use of the Training Kit, available online and on DVD, is expected to ensure that indigenous and marginalised communities participate in documenting, representing and communicating their spatial knowledge and land-related issues, while taking control over the processes involved. This would:

- add value and authority to local knowledge,
- facilitate intergenerational knowledge exchange,
- build and support cohesive community identities,
- support sustainable planning through collaborative decision making.

Use of the Training Kit also raises awareness about ethics in the PGIS practice and influences the attitudes and behaviours of the following groups:

- technology intermediaries assisting vulnerable communities in asserting their rights,
- researchers performing action research,
- government officials calling for public inputs into spatial planning exercises,
- development agencies that are designing development projects.

Obviously, there are external factors (e.g. the presence or absence of enabling environments) which influence the attainment of the project objective.

Target audience

The target audience of the Training Kit includes technology intermediaries working in multidisciplinary teams and operating within institutions and organisations committed to practising participatory mapping who are required to deliver training on the PGIS practice and facilitate the PGIS process in the field.

Because the Training Kit covers a wide range of topics, the developers recommend that staff members who attend a course based on this Training Kit should represent multiple disciplines; it is suggested that an organisation sends at least three people with social-anthropological, natural-resource management and geomatic backgrounds.

Use of the Training Kit by technology intermediaries, researchers, government officials and development agencies is expected to ensure that indigenous and marginalised communities participate in documenting, representing and communicating their knowledge, while taking control over the processes involved.

Constituents of the Training Kit

The Training Kit offers building blocks from which trainers can design and build their own workshops according to the training needs of their audiences. The Training Kit includes 15 Modules, each of which is comprised of a set of Units. A Module is a comprehensive collection of training materials related to a specific topic. Each Unit includes a number of components and libraries as shown in the Table 1. A Unit is the content to be covered in a single training session.

Table 1. Resources available in the Training Kit

					Comp	onents					Libra	aries
Module	Module Trainer Notes	Unit Trainer Notes	Handout for Trainee	Exercises	Other handouts	ppt Presentations	Case Studies	List of Additional Resources	Module or Unit Glossary	Global Glossary	Multimedia	Images
M01	1	3	3	0	8	3	0	3	2			
M02	1	3	3	6	13	3	3	3	3			
M03	1	5	5	5	12	5	0	1	1			
M04	1	3	4	5	5	4	0	1	1			
M05	1	4	4	8	28	4	2	3	1			
M06	1	2	2	2	3	3	0	1	1			
M07	1	5	5	8	8	6	0	1	1			
M08	1	1	1	4	5	1	0	1	1			
M09	1	6	6	26	4	7	0	5	1			
M10	1	4	4	6	16	6	0	4	4			
M11	1	4	4	2	4	5	0	2	1			
M12	1	4	4	3	2	4	0	1	1			
M13	1	3	3	7	4	3	0	2	1			
M14	1	6	6	19	4	6	1	0	5			
M15	1	3	3	3	2	3	1	3	3			
Totals	15	56	57	104	118	63	7	31	27	1	40	219

Curriculum structure and outline

The curriculum includes 15 Modules as shown in Figure 1 below. The orange blocks indicate Modules which the designers of this Training Kit consider to be pivotal; it is recommended that they be included in any curriculum. The grey blocks are Modules which contain specific Units that are important for any curriculum based on the Training Kit. The blocks with no fill colour are Modules which may be selected depending on the desired technical focus of the curriculum.

Module M03 aims to prepare users of the Training Kit to function as trainers for PGIS training.

Figure 1. Curriculum structure and outline

Module M01 Introduction to the Training Kit	Module M02 Attitudes, behaviours and ethics	Module M03 Fundamentals of training delivery and facilitation
Module M04 Community groundwork and processes	Module M05 Enabling and disabling environments	Module M06 Choice of participatory mapping method based on purpose, environment and resources
Module M07 Project structuring and initial reconnaissance	Module M08 Ground and sketch mapping	Module M09 Participatory scale mapping and survey
Module M10 Participatory 3D modelling (P3DM)	Module M11 Participatory mapping using remote-sensing images	Module M12 Introduction to GIS for the purpose of practicing PGIS
Module M13 Participatory Internet-based mapping	Module M14 Documentation	Module M15 Making maps work: planning, communication and advocacy

References

Technical Centre for Agricultural and Rural Cooperation (CTA; www.cta.int), 2010. Training Kit on participatory spatial information management and communication. Available on DVD and on http://pgis-tk-en.cta.int/. CTA Wageningen, The Netherlands. Also available in Spanish.

Technical Centre for Agricultural and Rural Cooperation (CTA), 2016. The power of maps. Bringing the third dimension to the negotiation table. Success stories. 72 pages. CTA Wageningen, The Netherlands. Also available in French.