

newsletter of kadaster international | june 2018

In two of the most affected areas in post-conflict Colombia, last February Kadaster started with an integrated Fit-for-Purpose (FFP) fieldwork project, together with the Colombian government and the District University of Bogotá. The interinstitutional team was warmly welcomed by the farmers of the villages Termales (Vista Hermosa, Meta) and Los Mandarinos (San José de Apartadó, Antioquia). After so many years of the government's absence and having experienced the horrors of internal conflict, the government's presence and the pre-pilots were like a 'dream come true'.

# Pre-pilots in FFP land administration underway in post-conflict Colombia

The fieldwork consisted of participatory surveying. Farmers measured their own parcel of land, together with local youngsters: digital literates, familiar with the smartphone. They walked the perimeters of their land parcels, measuring the boundaries using a GPS antenna connected with an App on a smartphone. Satellite imagery of the area is displayed on the smartphone. Data collection was carried out integrally based on the Land Administration Domain Model: the



perimeter is stored as a closed polygon together with the type of right claimed combined with a photo of the farmer, his/her ID and any document that can link the farmer to his/her parcel of land.

#### Sharing the data

At the end of April we went back to Termales to hand over the collected spatial information to the farmers at a festive village

meeting. This is an intermediate step towards land titles, whenever the legal framework and institutional cooperation allow for this.

#### Project

The project forms part of the Dutch government's contribution to the implementation of the peace agreements by focusing on fast and effective land administration. Kadaster has signed a Memorandum of Understanding (MoU) with the Colombian National Land Agency (ANT) together with the Dutch embassy, as well as an MoU with the District University. We work in close cooperation with the Land Registry (SNR), the National Rural Cadastre (IGAC), the National Planning Agency (DNP) and the environmental research institute Sinchi. The project is running until 2020.

#### More information?

Take a look at the project website at: www.landinpeace.com and watch our documentary on land 'Displaced' (Ontheemd).

Luz Ángela Rocha (Distrital University), Mathilde Molendijk

### The Gambia: knowing every inch of the country

The Gambia has installed a new democratic presidency in 2017. This new government takes a big effort in developing the country further and is drafting a National Land Policy. Land administration,



however, has not changed for many decades and is now recognised as a theme that needs urgent attention.

In collaboration with the Dutch Consul to the Gambia, the Gambia National Think Tank (GAMNATT) hosted a team from Kadaster International in April 2018. Meetings and discussions were being held

### **LADM Edition II**

The Land Administration Domain Model (ISO 19152) is very much alive. The standard is under attention, development and implementation in more and more countries. During the 7th Land Administration Domain Model Workshop, recently held in Zagreb, Croatia, it was agreed that a second edition needs to be developed. This edition should include functionality for valuation. Further a more comprehensive support to 3D and 4D cadastre is required. In order to better support implementations, also technical model/ encodings (BIM/IFC, INTERLIS, RDF, InfraGML, CityGML) are proposed. The possibility of a blockchain in support to transactions will be considered. And also the inclusion of processes using imagery. App based solutions are another relevant development. Very important will be the piloting of LADM implementations in real on political level with, among others, vice-president Mrs. Fatoumata Jallow Tambajang and stakeholders in land administration and policy. The need of an efficient land administration was endorsed, giving extra attention to vulnerable groups. The use of innovative approaches could be the way forward.

Parties agreed on exploring the possibility of signing an Memorandum of Understanding. Other plans concern a working week by the end of June 2018, where stakeholders will discuss and learn from each other.



"We should know every inch of this country and need the facility to do this." Mr. Lamin N. Dibba, Minister of Lands and Regional Governance

| Martinus Vranken



world environment. This will be organised by the Domain Working Group Land Administration of the Open Geospatial Consortium. A so called 'New Working Item Proposal' has been submitted by the

International Federation of Surveyors to ISO TC211 on Geographic Information.

Chrit Lemmen



EUREF 2018 SYMPOSIUM AMSTERDAM 30 May - 1 June 2018

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### EUREF 2018 Symposium Amsterdam

From May 30th until June 1st the Netherlands Partnership for Geodetic Infrastructure (NSGI) hosted the EUREF 2018 Symposium in Amsterdam. About 150 delegates from national mapping agencies, cadastre organisations and research institutes across Europe attended the symposium, that included a one day tutorial about Radar Interferometry (InSAR).

EUREF is the Reference Frame Sub-Commission for Europe of the International Association of Geodesy (IAG). EUREF plays a key role in the realisation of the global geodetic reference frame and provides technical expertise to the UN-GGIM sub commission on Geodesy for Europe. NSGI is the partnership between the organisations that are responsible for the geodetic infrastructure in the Netherlands; Kadaster, Rijkswaterstaat and the Hydrographic Service. The yearly EUREF Symposium is important to NSGI, as decisions are made and updates are presented concerning the developments related to geodetic infrastructure on the global, continental and national levels. This was the first time the EUREF Symposium was hosted in the Netherlands. On the occasion that this year, NSGI partner Rijkswaterstaat marks its 200 year anniversary of being responsible for the maintenance of the Netherlands vertical reference frame, Normaal Amsterdams (NAP). Nowadays NAP is used in many European countries, since NAP forms the basis for the current realisation of the European Vertical Reference System (EVRS).

Lennard Huisman

### Strengthening Professional Access To Information About Land on the Western Balkan

Since the start of the SPATIAL Project on the Western Balkan over 15 missions have been conducted. During those missions knowledge and experiences were exchanged on topics as:

- National Spatial Data Infrastructure
- Address Registry
- Cartography & Topographic Mapping
- Open Data
- Service provider
- Privacy and IT security



Colleagues from the National Mapping, Cadastre and Land Registry Agencies worked together with Dutch experts. This cooperation contributed to new legislation, enhanced production procedures, implementation of new technologies and increased

awareness and understanding on the addressed topics. The cooperation strengthens the involved institutions in their role to provide society with reliable information about land, for social and economic wellbeing of their country. In the coming months more missions are scheduled. Until the end of 2018 colleagues from Albania, Bosnia-Herzegovina, Kosovo, Macedonia, Montenegro and Kosovo will benefit from the project. The project is part of the MATRA programme run by the Dutch Ministry of Foreign Affairs.

Paula Dijkstra

### Transforming Indonesia -Participatory Land Registration

The Ministry of Agricultural and Spatial Planning/National Land Agency (ATR/ BPN) of Indonesia, has been given the assignment by the Indonesian Parliament to register 65 million individual parcels before 2025. With the current capacity (available budget and licensed surveyors) it will take decades to do so. Therefore alternative approaches are tested to accelerate land registration, reduce the



costs and make it suitable to the needs of both citizens and government. In two pilot areas the Participatory Land Registration project (PaLaR) investigates the potential of participatory land registration, using innovative tools, techniques and methods and thus providing a showcase for decision makers. As part

of the project, a georeferenced base map with parcel boundaries and village boundaries is produced and individual parcels are registered and certified. The quality of the work is assured by the University of Gadjah Mada. Kadaster and ATR/BPN work closely with the NGO network JKPP for participatory mapping and awareness raising. Cooperation with the Dutch enterprise Meridia ensures facilitation and implementation of the pilot project. The results are expected to be ready by August 2018. Success may well mean a transformation to the way agrarian land is registered in Indonesia since the 1960s Agrarian Law passed.

## EDITORIAL Scaling-up & scaling-forward

Spring 2018. Like every year, this is the conference season for me. Flying from Washington, to Nairobi and Istanbul being at the World bank, GLTN and FIG. Partly, it is about meeting the same people at different places. The common joke is, we see each other more than we see our partners in this time of the year. Fortunately, these conferences give great insight in what is happening in the world of land administration. That is an important reason to be there. And I have wonderful news this year: a lot is happening!

The last few years we spent a lot of effort in promoting the ambition to have land rights registered for all, using the Fit-for-Purpose approach. And guess what? It is happening. National governments, private sector, financing bodies: initiatives arise. Wonderful news, now we can sit back and wait ... Or, perhaps the real trouble now only starts? I am afraid, the latter is closer to reality then the relaxed option.

We have wonderful tools for land administration, but the proof is in eating the pudding. And it appears that practice and theory do not always match. Also, new interpretations and insights develop and criticism will come up. I think this is a necessary part of the implementation process. It will help us further develop the methodology in practice and in going from pilots and examples to large scale implementations.

Fit-for-Purpose is about doing things incrementally. Start simple (purpose driven) and foresee a more complex future where you can grow into with your people, laws, organisations and technology. And realise that innovation is ongoing. Approaches and technology of tomorrow will be different to what you do today. I call that scaling-forward.

And then we have to think big. It is not about 1000 or 100.000 parcels. We talk about millions and billions. So whatever we do, it should be feasible for the large scale. So scaling-up is something to always keep in mind. Next year, I will make another round of conferences in the world. I truly hope you are all scaling-up and forward by that time.

Kees de Zeeuw, Director Kadaster International

### **Improvement of Aruba's cadastral services**

Aruba' Land registry and cadastral department (DLV) is facing a backlog of 7000 unsurveyed parcels. Until this backlog is cleared, DLV cannot serve Aruba's citizens and professionals with accurate and consistent land data. For this reason, the Minister of Infrastructure is urgently looking for more cost and time effective survey methods. Kadaster International was tasked to review current methods and suggest improvements. Application of aerial imagery was tested as an alternative to traditional terrestrial boundary delimitation and survey. The traditional approach was replaced by a public viewing of high resolution ortho photo mosaics and extraction of parcel geometry from this geo-referenced imagery.

The public reacted positively to the imagery as a basis for boundary delimitation interviews. Although final evaluation is still to be completed it looks like costs



and workloads will be significantly reduced. Public appreciation of DLV service and process transparency turned out to be very high in exit interviews.

Paul Saers

### The road to FIG 2020

In less than 2 years we will welcome you in our capital Amsterdam as host of the FIG Working Week 2020. Our theme is 'Smart Surveyors for Land and Water Management'. This has a close link to our history as a country located in a river delta and with more than half of its land under sea level. But it is also linked to our future challenges on climate changes in which the role of surveyors and spatial data experts is crucial. We invite you to share how you address challenges on land and water management. You will also have the

opportunity to learn from our experiences and visit interesting sites where collection, monitoring and sharing of spatial data is essential to manage the land and water.

The event will take place from 9th – 15th May at the RAI Convention centre in Amsterdam. We look forward to welcoming you in Amsterdam!

Paula Dijkstra

www.fig.net/fig2020



### **Small Talk**

### 'Displaced': an international film about having hearth and home

In the Netherlands, land rights are effectively regulated but often taken for granted. Each piece of land has been meticulously mapped out by Kadaster. In 70% of the world, ownership



registration is not yet properly organised. Kadaster collaborates internationally on the registration of land and property.

The film 'Displaced' (in Dutch: 'Ontheemd') - made by Dutch film makers John Appel and Heddy Honigmann is about the Netherlands and two countries where land rights are still in development and where Kadaster is playing a pioneering role: Colombia and Nepal. Colombia is only in the early stages of peace after more than 50 years of civil war. A chance to organise the land rights of the farmers who live without any official proof of ownership in the jungle where the guerrilla war raged.

In Nepal, the 2015 earthquake caused enormous damage with thousands of deaths and nearly 1 million displaced people. An opportunity for change: disenfranchised farmers without property deeds, now have the opportunity to claim the rights to the land they have been living and working on for generations.

Visit www.kadaster.com to watch 'Displaced'

#### Kadaster Abroad is a newsletter of

Kadaster International. Volume 21, edition 2

Kadaster International is a department of the Netherlands' Cadastre, Land Registry and Mapping Agency (Kadaster).

Kadaster is responsible for safeguarding legal certainty of immovable properties in the Netherlands.

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### **UNGGIM development framework**

The 2030 Agenda for Sustainable Development calls for new data acquisition and integration approaches, including the contribution by earth observations and geospatial information. In this regard, the United Nations Expert Group on Land Administration and Management (UN-GGIM EG LAM) plays a leading role at policy level. It raises political awareness and highlight the importance to decision makers of the need for timely and Fit-for-Purpose land administration and management. The Expert Group further encourages the use of geospatial information tools and systems to improve the legal certainty of all citizens in the world. Therefore, the Expert Group is currently reviewing the need to develop a Framework for Sustainable Land Administration.