

CADASTRE, LAND REGISTRY AND MAPPING AGENCY

LAND IN PEACE



TIERRA EN PAZ

**COLLABORATION COLOMBIA - THE NETHERLANDS
ANNUAL PROJECT REPORT
PERIOD: FEB 2019 - FEB 2020**



Colophon

This is the yearly report (February 2019 - February 2020) of the Land in Peace Project, a Colombian–Dutch collaboration concerning land administration financed by the Netherlands as support to the implementation of the Colombian Peace Agreement. The project is executed by Kadaster, the Dutch national Cadastre, Land registry and Mapping Agency, in close cooperation with the Colombian land authorities, universities and supported by the Dutch embassy in Bogotá.

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Summary

The project runs from September 2017 to December 2020 and is implemented by Kadaster International and its consultants, with the technical support of the University of Twente (ITC) and in close cooperation with the Colombian cadastral authorities and strongly supported by the Dutch embassy in Colombia. Previously the Mid Term report including the financial statement, was published and approved in April 2019. This Annual Report covers the period of one year, from February 2019 until February 2020.

The overall goals of this project are to adjust and apply the Fit-for-Purpose (FFP) methods on participative and transparent land administration to the Colombian rural areas and see how this method can be applied on the national level. These goals are subdivided in the following topics: Inception, Pilots, National Rollout, Interinstitutional Cooperation, Local Capacity Development and Communication.

The Inception Phase and Pilot Interventions led to good results in two veredas in Vistahermosa and four veredas in Apartadó and as well as in the municipality of Cumaribo. In the rural post conflict pilot areas, the project and the FFP method can count on enormous interest from the population. The FFP method has been shown to work very well in difficult areas, although due to the many current administrative hurdles -which this project aims to help take away- the final objectives to produce property titles for the Colombian farmers remained at a horizon. During 2019 many initiatives were started to contribute to roll out the method to a national scale.

On land administration and land titling matters, women are highly represented in our pilot municipalities. The vast majority of the audience during the socialization meetings and public inspections is feminine. In our pilot municipalities, almost 90% of the chairmen of the local action committees (juntas de acción comunal) is female. According to themselves, women are better at compromising to achieve the community goals and they consider the relationship between men and women overall as equally.



Highlights of the past year

- Presentation to Dr. Carlos Moreno of the Colombian Presidencia on the FFP method and to reflect on the experienced bottlenecks in the title award process based on our experiences in the pilot areas. Moreno states that these reflections are the basis of the new policy (“De hecho las reflexiones [...] fueron las que desencadenaron todos estos desarrollos.”).
- At a high level event on television in July, President Duque explicitly mentioned the immense value of the contribution from the Netherlands to the land administration policy.
- Presentation of FFP video to approximately 600 newly elected mayors and 35 governors at the ESAP event¹ as part of preparation of their municipal development plans. ESAP is a prestigious public university in Colombia dedicated to the preparation for academic degrees related to public administration.
- Validation of the FFP by IGAC, the national rural cadaster of Colombia.
- Application of FFP to communal land and rural urban centres. Indigenous Land Reserves occupy nearly 30% of the country's territory. On invitation by IGAC, and in close cooperation with the national land registry SNR, a joint work has been carried out in Cumaribo where most people are Indian tribes living in indigenous reserves, surrounded by encroaching mestizo cattle farmers.

1. Explanation of the abbreviations is listed after this summary.

- Strategic Colombian institutional agents and institutions were contacted, explained the project's methodology and made aware of the project. Meetings were held with congress members, with the president of Colombia's Constitutional Court, Prosecutor, Minister of Agriculture, newly elected mayors, Vice minister of Defense, the governmental team on land administration linked to the World Bank loan, and other key members of Colombia's government.
- At the residence of the Dutch Ambassador in Bogota eight invited Colombian senators received a detailed presentation of the project.
- Information on the objectives and results of the Land in Peace project was given to several members of an official Dutch parliamentary mission to Colombia.
- A breakfast meeting at the EU Ambassador's residence, with the Dutch Ambassador and the director of ANT.
- With regard to future work in training and extension, contact was made with Colombia's national vocational training institute SENA and the public administration school ESAP.
- Throughout the year, continuous contacts were maintained with the Delegation of the European Union in Colombia and the Amazonian Institute Sinchi.
- Public Inspections were held in Vistahermosa and in Apartadó.
- Preparations with the Law Faculty of the Universidad Externado: Colombia's renowned university to define authoritative legal space within the existing legal framework for the full implementation of the FFP method.
- The participation of the farmers and local youth in the field data collection and their assessment of the results remains the best high light of the project.



Colombia's administration changed during 2019, with fresh views on the Peace Agreement and rural land policies in general. In all land institutions new directors and heads of divisions were named. The challenges for FFP implementation remain huge. The statutory framework has to accommodate FFP land administration. Besides, as Kadaster is now working in the capillaries of the land regularization process in post-conflict rural Colombia, we see procedural and institutional bottlenecks at the local level. Some of these challenges are time consuming and too big to handle within 2020, and for that a separate extension will be requested. We cannot stop halfway now that such great progress is being made.



Abbreviations:

ANT	Agencia Nacional de Tierras (Colombia's rural title deed granting authority)
CC	Constitutional Court
CPCI	Committee of Cadastres of Latin America
DNP	Departamento Nacional de Planeación (Colombia's national planning institute)
ESAP	Escuela Superior de Administración Pública (School of Higher Education of Public Administration)
FAO	Food and Agricultural Organisation – United Nations
FFP	Fit-for-Purpose
GIS	Geographical Information Systems
GNSS	Global Navigation Satellite System
IDB	Inter-American Development Bank
IGAC	Instituto Geográfico Agustín Codazzi (Colombia's mapping and cadastral authority)
INCODER	Instituto Colombiano de Desarrollo Rural (Colombia's former rural title deed granting authority)
INCORA	Instituto Geográfico de Reforma Agraria (INCODER's predecessor)
ITC	Faculty Geo-Information Science and Earth Observation, University of Twente
JAC	Junta de Acción Comunal
LADM	Land Administration Domain Model
NOS	Nederlandse Omroep Stichting
OKP	Orange Knowledge Program
NUFFIC	Netherlands Universities' Foundation for International Cooperation
SENA	Servicio Nacional de Aprendizaje (Colombia's national vocational training institute)
SNR	Superintendencia de Notariado y Registro (Colombia's real estate register authority)
UD	Universidad Distrital
UE	European Union
USAID	The United States Agency for International Development
WB	World Bank



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1. Introduction

Kadaster's project Land In Peace provides support on behalf of the Dutch government to the Colombian government for the implementation of the Peace Agreements of 2016 with regards to land administration. In 2023, there has to be an integrated up-to-date rural cadaster in place, linked to the property registry and municipalities (article 1.1.9. e.g.). The purpose of the project is to adjust and apply the Fit-for-Purpose (FFP) methodology, as propagated by Kadaster, as a strategic input for the Colombian land authorities to regularize land rights and land property titles in the rural post conflict areas of Colombia in a fast, transparent, affordable and participatory way. The Netherlands' embassy in Bogotá plays an important role in the strategy of the project. The project is implemented by Kadaster International and its consultants, with the technical support of the ITC and in close cooperation with the Colombian cadastral authorities. Before the official initiation of the project several fact finding missions and activities have been undertaken both in Bogotá and in the pilot regions Apartadó, Vistahermosa and Cumaribo, suitable sites representative for Colombia's post conflict situation.

The project runs from September 2017 to December 2020 and previously the Mid Term report including the financial statement, was published and approved in April 2019. This Annual Report covers the period of one year, from February 2019 until February 2020. During 2017 and part of 2018 the project inception phase took place and social, economic and technical feasibility for working in these regions was established. In 2018 the pilots were almost finished, successfully, applying the FFP methodology and in 2019, the attention shifted to institutional interests and objectives of the project.

In broad terms the Land in Peace project aims at two overall goals: (i) adjust and apply the FFP (Fit-for-Purpose) methods to the Colombian rural areas, mainly populated by small peasant enterprises, and (ii) see how this method can be applied on the national level.

The specific objectives and expected results of the project are:

- a.** Initiate the project with an Inception phase to fine-tune the outcomes and activities further with the beneficiaries.
- b.** Pilot interventions are established to demonstrate alternative (rapid and effective) methods for land administration.
- c.** Technical support for a feasible National Rollout Plan for rapid and effective land administration is provided.
- d.** A relevant contribution has been made to improve the effectiveness of the Cooperation between the institutions involved.
- e.** Capacity has been developed on the municipal level for the maintenance of the cadastre and registry.
- f.** Communication - The project activities and intermediate results are communicated to all institutions involved and also to the public in Colombia and the Netherlands



Up until now, the project has led to remarkable results in a difficult process. At the highest level, the government is convinced of the FFP method as an attractive alternative: a fast, affordable, transparent and participatory method for providing property titles. The method is solid and accepted by the local population, as well as several land administration agencies in Colombia.

The challenges are also great. The statutory framework lags behind, so legal room has to be found to stress the need for Fit-For-Purpose changes in land administration. As Kadaster is now working in the capillaries of the land regularization process in post-conflict rural Colombia, we see procedural and institutional bottlenecks at the local level, such as unclear procedures, unnecessary costs for farmers and governmental agencies not pulling one line, within their organization, and between the organizations. While so many lights are now green after considerable effort, changing the land administration system touches upon existing administrative and legal regulations and institutions. While some of these are anchored in historic jurisdiction and the Constitution, many recent administrative dispositions appear as a colossal obstacle to efficient land title formalization and adjudication of state land. These dispositions can be adjusted to better procedures. Nevertheless, some of these challenges are time consuming and too big to handle within 2020, and for that a separate extension will be requested. We cannot stop halfway now that such great progress is being made.





2. Project Activities and Results

A. Inception

The inception phase is already finished; its description can be found at the previous mid-term report submitted in April 2019.

B. Pilot Projects

The pilots are the cornerstone of the whole project. Its actions are shown in Table 2. All other project activities derive from the pilots. The methodology has different steps and most of the governmental institutions related to the land registration² are involved in them. So, through the pilots it is possible to implement the remaining project results, such as the institutional cooperation; capacity building; and support the national rollout plan on FFP land administration with the land administration institutions. The preparation of the pilots is done together with the institutions, they also take part in the implementation of the pilots, and are responsible for the approval of ownership and giving out titles. The pilots give all participants a clear view on the main bottlenecks and together with the specific institution we try to address these.

At this stage we can say that the FFP method has been applied with good results in two veredas (small hamlets) in Vistahermosa (Meta department), four veredas in Apartadó (Antioquia department), and in Cumaribo (Vichada department). We are pushing the last step of the FFP procedure, the handing out of ownership titles, as much as possible.

2. The institutions that took part in the pilots are: ANT, SNR, IGAC, DNP, SINCHI, Universidad Distrital, Cadastre of Antioquia, University of Twente and the private company Esri that developed the app for the field work.

Table 2 Steps carried out in the pilot project. The rural pilots in Vistahermosa and Apartadó

	PHASE	ACTION
1.	Preparation	Contact with <i>Juntas de Acción Comunal (JAC)</i> , Social fieldwork, technical, public inspection, logistic preparations
2.	Legal assessment	Consulting existing data IGAC, SNR, ANT: Private parcels, state land parcels (<i>baldíos</i>)
3.	Local training grass roots surveyors	Training local youngsters to measure parcels in the field and collect legal & administrative data
4.	Socialization	Social mapping, explication method to community
5.	Data collection	Measuring and obtaining information of plots by GPS and land owners information
6.	Public inspection	Gathering of landowners to assure ownership and boundaries; sign digitally boundary agreement acts
7.	Data processing and elaboration of titles	Obtained data has to be compared with existing titles or documentation by ANT
8.	Giving out the titles	ANT, municipalities and other institutions

The pilots of Vistahermosa and Apartadó were started in 2018, as the mid term report showed, and mostly developed in 2019, being now in their two last phases. All the collected physical, personal and legal data is delivered to ANT, Colombia's rural title deed granting authority, that has started the legal analysis of the data, the last step before handing out land titles as can be seen in Table 3 and 4. The data of Apartadó has officially been delivered the 6th of March 2019 to ANT and the process is in its last phase, titles are expected to be handed out in 2020. The data of Vistahermosa was first delivered to ANT on the 21st of September 2018, and a second part on the 17th of October 2019. The data of Vistahermosa is, at the moment, still being analysed by ANT. Some more time is needed to finalize this process. Table 5 shows all the missions that were made to the two municipalities.

The Cumaribo pilot, done mostly in 2019, is a new one with slightly different aims, requested by IGAC, Colombia's mapping and cadastral authority, that brought some other interesting results that will be described below.

Vistahermosa

Table 3. Status of the pilot in the veredas of the municipality Vistahermosa

	VISTAHERMOSA	
	Termales	Costa Rica
Selection pilot area	X	X
Preparation fieldwork social (with JAC)	X	X
Preparation fieldwork technical and logistic	X	X
Execution field survey	X	X
Process survey geometric aspects	X	X
Process survey personal and legal data	X	X
Preparation public inspection organisational	X	X
Preparation public inspection technical	X	X
Execution public inspection	X	X
Mediation in disputes	X	X
Deliver agreed data to ANT for land titles	X	X
Research remaining issues concerning land titles ³	O	O
Hand out land titles	-	-

3. Research remaining issues concerning land titles is the process where ANT checks whether there is already an existing title on the same parcel, and if the current owner has the right to officially own the land. There are certain conditions that have to be met to grant the title for free, for example a minimum occupation of 10 years, not having other properties or social benefits.

Apartadó

Table 4. Status of the pilot in the veredas of the municipality Apartadó

	APARTADÓ			
	Los Mandarinos	El Tigre	La Balsa	La Linda
Selection pilot area	X	X	X	X
Preparation fieldwork social (with JAC)	X	X	X	X
Preparation fieldwork technical and logistic	X	X	X	X
Execution field survey	X	X	X	X
Process survey geometric aspects	X	X	X	X
Process survey personal and legal data	X	X	X	X
Preparation public inspection organisational	X	X	X	X
Preparation public inspection technical	X	X	X	X
Execution public inspection	X	X	X	X
Mediation in disputes	X	X	X	X
Deliver agreed data to ANT for land titles	X	X	X	X
Research remaining issues concerning land titles	X	X	X	X
Hand out land titles	X	O	O	O

Table 5. List of all field visits to Apartadó and Vistahermosa from January 2019 until January 2020.

WHERE	WHEN	WHAT
Apartadó, Antioquia	4 - 6 of February 2019	Public Inspection La Balsa, El Tigre and measuring parcels La Linda (with ANT)
Apartadó, Antioquia	5 - 6 of March 2019	Public Inspection La Linda (with ANT)
Costa Rica, Vistahermosa	8 - 11 of April 2019	Public Inspection (with SNR)
Termales and Costa Rica, Vistahermosa	12 - 15 of November 2019	Measuring changed parcels and showing FFP methodology to the prosecutor (Agrarian Prosecutors)

Cumaribo

IGAC invited Kadaster to help out in the updating of the cadastre of the municipality Cumaribo, a municipality with 34 indigenous reserves in the province of Vichada. While 30 percent of the Colombian territory consists of indigenous reserves, it is of great importance to include experiences with communal indigenous lands in the National Rollout Plan. All over the country, land disputes occur between these communally held Resguardos Indígenas and neighbouring farmers' settlers, who claim possession rights on state lands (or have been awarded - legally or illegally - land titles by INCORA, INCODER or present ANT).

In Cumaribo, three different activities were organized in cooperation with IGAC and SNR, Colombia's real estate register authority. Of the 6.6 million hectares of land in Cumaribo, half of it is legally owned by indigenous peoples, mostly Sikuani and Cuiba. But the Resguardos Indígenas have often poorly defined borders, with consequently many border disputes with their neighbours. Therefore, one of the activities consisted of mapping with the FFP methodology a land dispute between the indigenous reserve Santa Teresita del Tuparro and the neighbouring farmers. Another activity was finding an efficient way to help IGAC to define the economic value of this indigenous land. This is important for municipal finances, as indigenous peoples in Colombia are exempted from paying land property taxes and the municipality is allowed to receive financial compensation from the Ministry of Finance for these forfeited revenues. A third task was, also on request by IGAC, applying FFP to the urban lots of the small township of Cumaribo.

This permitted the project to include in its work also post conflict urban areas. Data of owners of urban informal lots was collected to facilitate property titles in the urban centre of Cumaribo. After passing urban state land property to the municipality the mayor can - permitted by the municipal council - grant property rights for free to the current owner, when they can prove that the house on the urban lot has been inhabited for ten years. The work was done in close cooperation with SNR: new law regulations offer mayors the faculty to hand out ownership and channel these rights to the provincial register, i.e. SNR in Vichada's capital Puerto Carreño in this case. Involvement by ANT is not needed here; these are urban land properties, therefore land titles can be handed out with only help from SNR and the municipality. These experiences in Cumaribo, innovative for Colombia, will be of critical use for generalizing local experiences with the FFP methodology towards a national land administration plan.



Figure 1. Indigenous leader Hernando Bonilla measuring the limits of the indigenous reserve Santa Teresita del Tuparro with the team of Kadaster and of Bogotá's Universidad Distrital. August 2019.

A FFP methodology was used by Kadaster International together with the Universidad Distrital to help clarify land conflicts between indigenous communities and their neighbours. The work was carried out in the border region between the Indigenous Reserve Santa Teresita del Tuparro (200.000 hectares, 86 small communities) and its neighbouring cattle rancher farms. Most of the reserve's borders are defined by rivers and creeks; on the remaining part – a land stretch of about 20 kilometres - conflicts with farmers have arisen. In this pilot, indigenous leaders measured their own boundary, as defined by them and 8 neighbouring farmers measured likewise the limits of their neighbouring parcels. The total measured area of the farms was 6130 hectares. In a subsequent public inspection the field measurements were shown, together with the digitized maps of the titled properties. This helped to clarify the conflict, demonstrating that the Colombian State has given out several property rights on the same land.

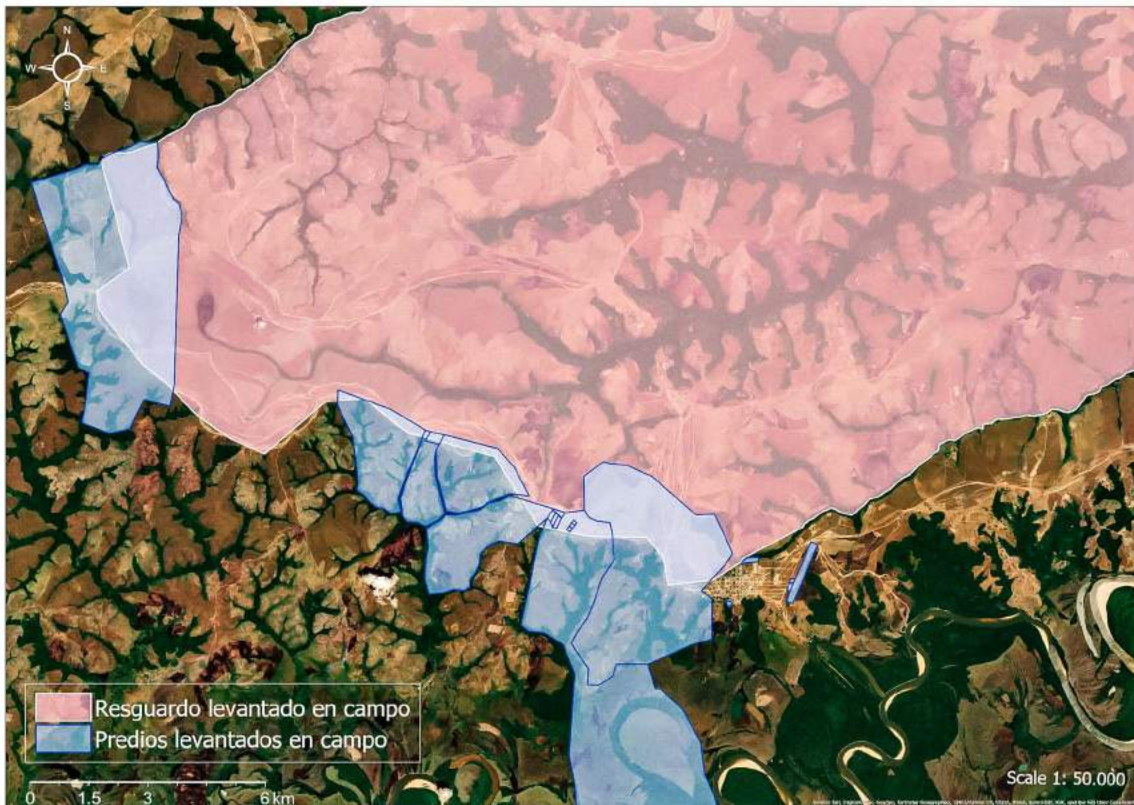


Figure 2. Map of measured parcels in Cumaribo. Pink: Limit of the indigenous reserve Santa Teresita del Tuparro. Blue: Parcels of cattle farmers. September 2019

The experiment shows that it can greatly help to map the dispute on specific contested areas together with the stakeholders to understand the situation and obtain a clear agreement on the definition of their disagreements. This is a good example of how to start solving land disputes related to indigenous communal lands and should therefore be included in a national rollout plan. A report of its findings was accepted for presentation at the 2020 World Bank Annual Congress on Land and Poverty.

Table 6. Steps of the process applied in fieldwork Cumaribo indigenous land

	STEPS	ACTIONS
1.	Preparation	Meetings with Indigenous leaders, with farmers (<i>colonos</i>), study Sikuani culture, data collection, technical, public inspection, logistic preparations, contact agencies
2.	Legal assessment	Consulting existing data IGAC, SNR, ANT
3.	Local training grass roots surveyors	Training local youngsters and local IGAC team to measure rural parcels and boundary Indigenous Reserve
4.	Socialization	Social mapping, explication method to community (farmers and Indigenous communities)
5.	Data collection	Fieldwork. Measuring the limit of the Indigenous Reserve with Indigenous leaders and the boundaries of the farms with their owners
6.	Public inspection	Gathering of landowners to assure ownership and boundaries or to agree on disagreement
7.	Data processing and juridical analysis	Obtained data has to be compared with existing titles or documentation by ANT

Table 7. Field Visits Cumaribo

WHERE	WHEN	WHAT
Cumaribo, Vichada	31 of May - 5 of June 2019	Fact finding: getting to know the situation (with IGAC Bogotá / Villavicencio)
Cumaribo, Vichada	29 of July - 4 of August 2019	Establishing local relations: Meetings with mayor, indigenous community, military base, etc.
Cumaribo, Vichada	15 of August - 4 of Sept 2019	Fieldwork: measuring limit indigenous reserve and seven neighbouring farms. Taking drone images (with IGAC)
Cumaribo, Vichada	29 of July - 3 of August 2019	Preparing field work (with SNR)
Cumaribo, Vichada	16 of Nov - 5 of Dec 2019	Collecting data urban informal lots. Handing over data to municipality and SNR (with IGAC and SNR) Public Inspection Motivating and training municipal staff 2019
Cumaribo, Vichada	11 - 15 of February 2020	Capacity development with new staff (from January 2020) Secretary of Planning municipality of Cumaribo (with SNR)



In December 2019 it seemed that key members of Cumaribo's municipal administrative personnel, whose task was to process the urban land data, obtained with the FFP sessions and to be channeled to the provincial Registry, were losing interest in the whole undertaking. Since in October a new Mayor was elected, to take office in January first 2020, it meant that many public employees were losing their job on December 31⁴ and maybe therefore - or at least apparently- their interest in FFP and urban lot titling.

The new municipal administration had to be filled in on the Kadaster project's goals, methods, and procedures. With a new municipal team aboard this was done in a February 2020 visit, carrying out a necessary crash course training program, together with SNR.

4. Unfortunately, this temporarily partial paralysis -occurring every four years- is the case for a substantial part of Colombia's public employees: when new Mayors arrive (or Governors, Ministers or a President) new heads of sections, secretariats, vice ministries, divisions, departments are named, like many new employees in their wake. This costly slowing down of public functioning, is mirrored again during the first months of the new regime. With tight budgets, and keen political maneuvering, new temporary contracts - a large part of public employment - only slowly materialise. This was observed for example at IGAC Bogotá where big office halls were still mostly empty by late February.



Position of women

Women have a crucial role within our pilot municipalities. Over 90% of the local community chairmen was feminine in the veredas (villages) where we worked. We see this reflected in an equal presence during the socialization meetings and during the public inspections. In both Apartadó and Vistahermosa more than half of the attendees was female. Regarding land ownership, also 50% of the parcels belong to women. Hence, a land title is a positive impulse for women rights. More profound research on this topic needs to be done, but the assumption is that a title of land ownership contributes to self-confidence, status and empowerment of women which benefits an equal relationship at every level.

The local chairmen argue that women are more disposed to take the responsibility of the local chairman position (Junta de Accion Comunal), as men are dedicated with the physical work on the farm. Chairman Aurora Martinez of the Termales village stresses that women are more willing to compromise in order to achieve the community goals.

An exception forms the pilot municipality of Cumaribo in the Vichada department. The vast majority (around 80%) here is indigenous. One of the ethnic groups is the Sikuani; their culture is characterized by the higher position given to men. Men are the leaders and fulfill important positions within the community such as tribal chief, guards, etc. Women, on the other hand, hold domestic positions. They harvest cassava, transport it, prepare it, cook, take care of the children and weave. Land rights of Indigenous Reserves are communal land rights. However, in the urban centre of Cumaribo a different situation is noticeable as people from different regions came to live here. During the public inspection we organised for regularization of private parcels more women (184 in total) than men (141 in total) assisted.

C. National Rollout Plan

The Kadaster project not only proposed to develop, adjust and apply the FFP methodology in pilot projects in rural Colombia. It also proposes to offer this as a practical and feasible alternative to current land administration practises in Colombia, which are clearly unable to reach the goals which were formulated in the Peace Agreement of 2016. However, being this project a technical assistance project and not an operational enterprise, its role with respect to a National Rollout Plan was formulated as “based on the previous results (i.e. pilots in several regions of the country) contribute to the formulation of a national rollout plan for rapid and effective land administration in Colombia”.

With regard to this second goal, during 2019 many initiatives were started with the aim of contributing to scaling up FFP nationwide. This goal includes (i) informing institutions and stakeholders, (ii) coordinating with other land administration donors, (iii) workshops and training preparations, (iv) expert sessions, (v) high level debates on FFP methodology, (vi) and contributing to a draft national rollout plan.

Strategic Colombian institutional agents and institutions were contacted, explained the project’s methodology and made aware of the project. During 2019 meetings were held with counselors of the President, with congress members, with the president of Colombia’s Constitutional Court, Prosecutor, Minister of Agriculture, newly elected mayors, Vice minister of Defense, and other key members of Colombia's government.

With regard to future work in training and extension, contact was made with Colombia's national vocational training institute SENA. SENA’s director and the Head of Curriculum Development expressed interest in future shared activities; the same was the case with ESAP, the School of Higher Education of Public Administration.

At the residence of the Dutch Ambassador in Bogotá eight invited Colombian senators received a detailed presentation of the project. Their conclusions included: the high relevance they saw for further legal support to the FFP methodology, to advise Colombia's president on it, and to contact the Senate’s and Chamber of Representative’s Fifth Commissions, who are in charge of preparing cadastral law making.

Also, a breakfast meeting at the EU Ambassador's residence has been organized, with the Dutch Ambassador and ANT's director and concluded in recommendations to take action for rapid property titling by ANT.

Throughout the year continuous contacts were maintained with the Delegation of the European Union in Colombia and the Amazonian Institute Sinchi, the latter being the operator of a big EU rural development program in Meta Province, wherein Kadaster has planned - if efficient rural land titling by ANT could be expected - to execute the fieldwork for 800 farmer families' land parcels. Up till now 160 parcels have been visited and measured, and spatial and juridical data included in FFP databases, ready for titling, handed over to ANT.

In terms of institutional impact of the project, at the end of 2019 two favorable circumstances have been reached. Convincing Colombian cadaster officials of the virtue of FFP did not depend exclusively any more on the Kadaster project's staff; the Procuraduria Agraria, the General Prosecutor's Office, declared itself in full agreement with FFP methods and sent supportive and encouraging messages about the results of our project to other Colombian government institutions (President's Office, ANT, IGAC).

In October 2019 elections were held to elect new mayors and governors of all Colombian municipalities and departments. These mayors and governors have assumed their position in January 2020. In December 2019 they were all invited for a national induction program organized by ESAP in Bogotá. This induction event consisted of several courses on how to prepare and formulate a Municipal Development Plan of which one was focused on Cadastre. Kadaster was invited to present a short video on FFP operations in the field, with homely rural images where peasant's youths manipulate FFP cutting edge technology, to the more than 600 mayors and dozens of governors, counsellors and deputies present. The video pointed out that they could easily include this methodology in their municipal and departmental development plans. Several mayors of different municipalities have afterwards expressed interest to include this method in their plans.

Other steps that have been taken for the National Rollout Plan are shown in Table 8.

Table 8. Intermediate results of the Land In Peace project on National Rollout Plan Field Visits Cumaribo

	Organizations	Status
Mobilization of stakeholders	ANT (Director/ Seguridad Jurídica Subdirectory) SNR (Director / Formalization) IGAC (Director / Cadastre Subdirectory / Villavicencio territorial) Presidency (Presidential advisor) Sinchi	Ongoing
Coordination with other donors	World Bank BID Swissphoto European Union DNP FAO Dutch embassy	Ongoing
Participation, workshops, expert sessions, high-level debates	ESAP (Training elected mayors, video FFP) Mesa de Expertos Debates with senior officers from ANT, SNR, IGAC World Bank conference "Land and Poverty" 2019 Mesas técnicas "Multipurpose Cadastre" Meetings with several presidential advisors Technical workshops of Universidad Distrital Workshops in Brazil, Peru, Ecuador Meetings with World Bank, IDB, FAO Meeting with President of Constitutional Court Constitutional Court Public Hearing on Tierras Baldías legislation, on special invitation by the President of the CC Meetings with ESAP Meeting with director Carlos Mario Estrada Molina and head of SENA`s curriculum development division Claudia Rojas Meeting with senator German Varón on FFP proposals in Congress Throughout the year several meetings with Sinchi on progress in land administration as a result of Kadaster`s activities in Vistahermosa.	Ongoing
Contribute to National FFP rollout plan draft	Provide technical assistance on formulation of a National rollout plan with Colombian institutions.	Ongoing



D. Interinstitutional Cooperation

In 2019, the cooperation continued with the land related institutions such as IGAC, SNR, ANT and the Universidad Distrital (see Table 10).

At the beginning of the project a Memorandum of Understanding was signed between ANT, Kadaster and the Dutch Embassy in Colombia. A similar MoU was signed with SNR and later on also one with the Universidad Distrital. In 2019 we prepared an MoU with IGAC. These MoUs offer ample opportunities for interinstitutional and counterpart cooperation for the realization of mutual overall project goals.

ANT's and SNR's officials actively accompanied the field work in the pilot areas. Afterwards no quick property titles could be produced because of complicated internal institutional regulations and existing legal regulations. The juridical analysis of ANT is often time consuming, where for instance 50 year old paper documents have to be found in the institutional archive. We also noted that IT knowledge and database management is insufficient. Since all collected information in the field is collected in an integrated database, it can be hard for governmental employees to access the data and analyse the information. Therefore, solutions had to be found to share data in a simplified way with these institutions.

We expect that the two first pilots are leading to results, and that land titles will be handed out in Apartadó in 2020. A next mission to Vistahermosa is being organized by ANT, with the aim of producing land titles in 2020.

In addition, new challenges, related to the country's changed administration during 2019, appeared when a newly elected president started his program, with fresh views on the Peace Agreement and rural land policies in general. In all three mentioned land institutions new directors and heads of divisions were named. At IGAC, between December 2018 and January 2020, four sub directors of the cadastre were named. The project's goals, methods and procedures were explained four times to a new cadastre director. While FFP became fully accepted as a useful land administration method by IGAC and SNR, within ANT the opinions on the FFP (legal) applicability vary.

With senior officials of the Procuraduria Agraria a visit was made to Vistahermosa, where the FFP method was applied on farmer's parcels and meetings were organized where farmers offered opinions on the project and expressed their need on urgent land property titles. The officials of the Procuraduria Agraria were convinced that the FFP method should be implemented by the Colombian institutions and were surprised that the processing of the data collected in the field of Vistahermosa and Apartadó was slow. They therefore sent a letter to President Duque and the directors of ANT and IGAC, asking what had happened with all the FFP data (from Meta, Apartado, Vichada) submitted to these institutions. After that, the presidency asked the director of ANT for an explanation. As a result, meetings with ANT were organized to plan a visit to Vistahermosa to continue the process to titling.

The European Union's chief for International Cooperation in Bogota was informed about the potential impact of the FFP method for Colombia's rural land administration. He offered to financially support a possible waiver for its application in a special experimental situation, where FFP methods, accompanied by ANT, IGAC and SNR representatives, would immediately produce land property titles. Together with officials of the Procuraduria Agraria contact was made with the Law Faculty of the Universidad Externado, Colombia's renowned university in law sciences and practices.

According to the Faculty the current administrative law offers some possibilities to grant FFP titles in a fast and affordable way. An investigation will be set up through funds of the European Union.



Figure 3. Professors of the Universidad Distrital taking drone images of the urban centre of Cumaribo. September 2019.

Another example of interinstitutional cooperation is the work that has been carried out in the urban area of pilot zone Cumaribo where the majority of the urban lots is informal and lacks property rights. Kadaster participated by invitation of IGAC in the updating of the cadastre of this municipality implementing the FFP approach. A cooperation was started by Kadaster with IGAC, SNR, the municipality of Cumaribo and the Universidad Distrital, with the aim to use the update of the local cadastre directly to also produce land titles to owners of the informal urban lots by the municipality.

IGAC measured the urban lots in the field using as base information an orthophoto taken with a drone by the Universidad Distrital, where after a collaboration existing of members of IGAC, SNR, Universidad Distrital, ESRI, ITC and Kadaster collected the physical, legal and personal information of all applicants for a land title in urban Cumaribo. A Public Inspection was organized to collect and verify this information where after the data of the 306 lots in total was delivered to the Secretary of Planning of the municipality of Cumaribo. The municipality of Cumaribo received this information digitally, in a database, to finish the titling process (see Table 9). Whereafter Kadaster and SNR organized a local capacity training for the Secretary of Planning.

Table 9. Status of the pilot in the urban centre of the municipality Cumaribo

	CUMARIBO
	Urban centre
Selection pilot area	X
Preparation fieldwork social (with JAC)	X
Take images urban area with drone	X
Field survey IGAC	X
Collection personal and legal data	X
Preparation public inspection technical	X
Execution public inspection	X
Mediation in disputes	X
Deliver data to municipality for land titles	X
Research remaining issues concerning land titles	O
Hand out land titles	-

It is the first time that the municipality of Cumaribo is expected to hand out titles in a massive and fast manner. Because of a lack of experience and knowledge the local staff had to be instructed on the steps of urban titling, with the help of SNR.

It also required a change of the workstyle at the municipality of Cumaribo. The use of digital information like databases is not much implemented yet, and therefore the staff had to be encouraged not to print everything on paper but instead use a database on the computer. To support this, a visualization tool was installed and explained at the municipality to make it easier for the staff to access the digital data. The juridical verification with the application during the training took maximum 10 minutes per parcel. What is also noticed is a certain amount of fear to take responsibilities and a simple step as, for example, signing a document can take a lot of time. Besides, with the arrival of the new mayor in January 2020 the Secretary of Planning staff changed. Therefore, new members had to be instructed. By continuing to support the local team within this cooperation, it is expected to deliver land titles of urban land parcels in Cumaribo in 2020.

Table 10. Intermediate results of the Land In Peace project on Interinstitutional Cooperation

Activities	Who	Comments	Status
Agreement to assist with personal	ANT, SNR, Universidad Distrital, IGAC (to be signed)	Signed Memorandum of Understanding with several organizations.	Ongoing
Study Tour	-	Due to many changes in Colombian governmental institutions, a study tour could not be organized.	Canceled
Workshops	IGAC	Workshop/Training Fieldwork with IGAC Villavicencio and workshops organized by Universidad Distrital to show IGAC measurement standards.	Ongoing
Congressional Committees	Permanent <i>Comisión V</i> of the <i>Cámara de Representantes</i> and the permanent <i>Comisión V del Senado</i> ⁵	-	To be done
Mesa de Expertos	All	The last Mesa de Expertos was organized in December 2019. Kadaster was present at this event.	Finished

5. *Permanent Comisión V* of the *Cámara de Representantes* and the permanent *Comisión V del Senado*, in charge of the “Régimen agropecuario: ecología, medio ambiente y recursos naturales: adjudicación y recuperación de tierras; recursos ictiológicos y asuntos del mar; minas y energía; corporaciones autónomas regionales”. These include legislative affairs on cadastres.



It has not been possible to organize a study tour to the Netherlands. As mentioned before, there have been many changes in the Colombian government institutions in 2019. Several organisations changed their (sub)directors more than one time this year. Moreover, we tried to combine the study tour with the tour of the Orange Knowledge Program, a NUFFIC financed cooperation between ITC and the Universidad Distrital, where teachers of the Universidad Distrital were invited to the Netherlands in the week of the FIG Conference in May 2020. However, due to the corona virus circumstances, this study tour unfortunately also had to be canceled.

In general, we still consider a study tour to the Dutch Kadaster and ITC a valuable instrument to see and discuss high level technological and institutional innovations, leading to improved services to citizens and financial sustainability. Another study tour that could be organized in Colombia is one where local ANT employees are invited to other pilot areas to see the practices and results in other areas.

In Cumaribo, two new applications were implemented that are part of the technical development of the project. In 2019 ITC has further developed the Public Inspection application. The first version of the Public Inspection app was developed in the first year of the project and was used to collect digital signatures of the boundaries of the parcels in Apartadó and Vistahermosa. The application shows all parcels, boundaries, names and pictures of the owners and their id-documents. This application is used to show the results of the measurements publicly to the community at the presentation and inspection of the results. This year, the application has been made more user friendly and images can be directly uploaded if necessary. There is also the possibility to capture digital fingerprints. These new features make it possible to update information in real-time and save time in the office. The new version of the application has been successfully used in Cumaribo.

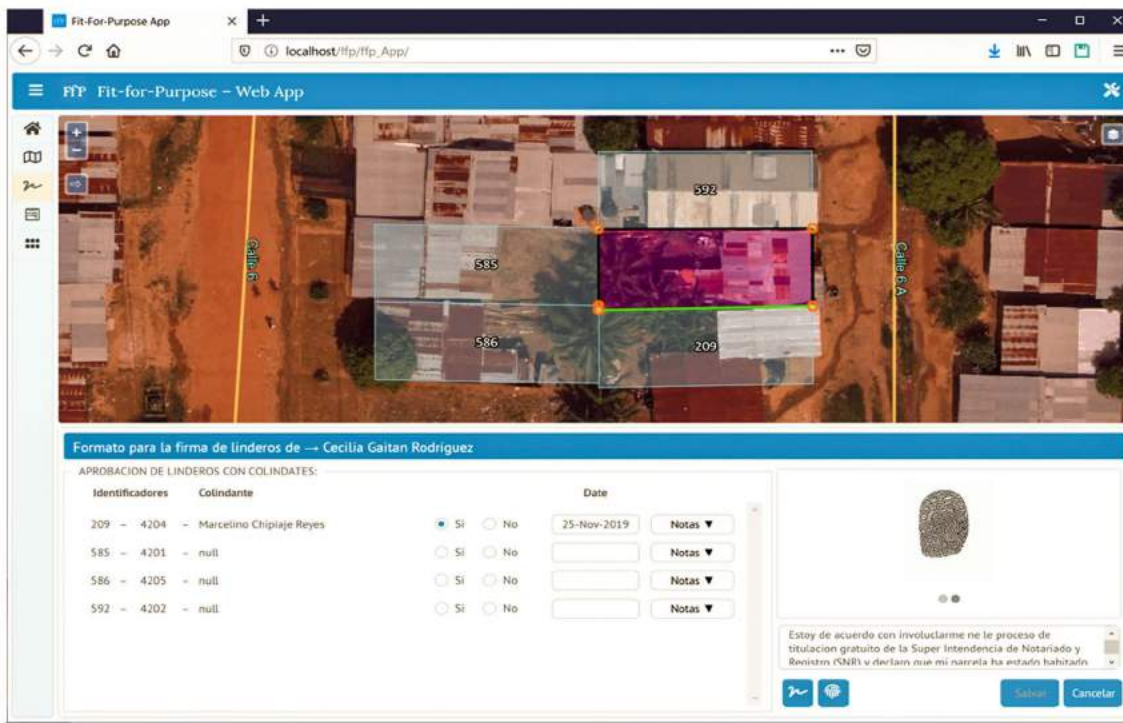


Figure 4. Image of the new version of the Public Inspection application. Boundaries are shown and information of owners are approved with their digital signature and fingerprint.

The visualization application installed at the Secretary of Planning's office in Cumaribo is an extension of the Public Inspection application. In this application information of one parcel can be consulted: it shows all the information such as names, descriptions, pictures and documents. This increases the accessibility of data to the staff of Colombian institutions who need to analyse the collected data. The tool will also be adapted for the databases of Vistahermosa and Apartadó.

ITC and Kadaster have also been improving the data collection model that is used in the field, using the Land Administration Domain Model (LADM) standard. Based on experiences of the pilots and the analysis of Universidad Distrital and ESRI, missing variables were added to the model. Several meetings were planned with the Swiss Cooperation SwissPhoto, an organisation working on a national land administration infrastructure for Colombia. This led to a further analysis of the model to find out to what extent it fits into Colombian standards. A final version of the FFP database model for the Colombian situation is developed.

The objective is that these applications that are developed as part of the project will be implemented and used by Colombian institutions. The developed applications are LADM compliant, user-friendly and can therefore help to shift from a paper process to a more digital process. Therefore, FFP workshops with the institutions can access them and use digital information.

As part of the technical development, ESRI Colombia has also been present during the fieldwork. Engineers of ESRI supported the data collection in the field and investigated the optimization of the post processing of the data.

E. Local Capacity Development

Table 11. Intermediate results of the Land In Peace project on Local Capacity Development

WHAT	RESULT	WITH
Agreements at the local level	Agreement with mayor and counsellors Cumaribo for urban titling	municipality Cumaribo
Integration of FFP methodology to Municipal Development Plans	Several municipalities and mayors have expressed interest to include the FFP methodology into their municipal development plan and want to organize a pilot in their municipality	Both urban and rural: Requested by Bogotá, Zipaquira (Cundinamarca), Codazzi (Cesar), El Carmen de Viboral (Antioquia), Cabuyaro (Meta), Mapiripan (Meta), 14 municipalities bordering the Sierra Nevada de Santa Marta
Training in the maintenance of up to date land data	Trained local IGAC team to measure parcels using FFP. And trained the Secretary of Planning team to use GIS and digital information for analysis of land data. Trained grassroots surveyors	IGAC Villavicencio, municipality of Cumaribo

Local capacity development has mainly found place in Cumaribo, where the majority of last year's fieldwork activities took place.

Several grassroots surveyors were trained this year. Youngsters from the first pilot areas Vistahermosa and Apartadó are already sufficiently trained to measure parcels completely by themselves. In Cumaribo, youngsters from the Indigenous Community Santa Teresita del Tuparro were trained to measure the limits of their own reserve and constructions in their communities. The pilots with the indigenous community showed that it is always important to have local people or youngsters of the community present.

In addition, a training has been organized in Cumaribo to instruct the local surveyors of IGAC Villavicencio how to use the GNSS antennas and measure more efficiently. The antennas were lent to IGAC so they could do some extra exercises in rural Cumaribo and use them to survey constructions in the indigenous reserve. However, in the end IGAC was not able to use the antennas for work in the indigenous reserves. More workshops are needed to generate sufficient confidence to use these new technologies entirely without supervision.



Figure 5. Training of local IGAC team in Cumaribo, Vichada. November 2019.

After the data collection in Cumaribo, several meetings with the Secretary of Planning and SNR were held. Titling urban lots by the municipality requires a legal process of several steps and in these meetings all steps were explained by SNR with help of Kadaster. A first step exists of incorporating the informal urban lot to the municipality properties. For this step, SNR has to provide proof that there is no current register of the lot. A cadastral map and a description of the land use are also necessary. When this step is completed, the mayor of Cumaribo can officially hand out land titles to the current people occupying the land. When the land occupants fulfil the requirements: minimum occupation of 10 years, paying taxes on the constructed dwellings, and do not have subsidies or other properties registered, they can obtain the land title for free. This has to be validated with the data that was captured digitally and stored in a database, where after it has been installed at the municipality. The legal procedure is also an important aspect of local capacity development.

Furthermore, staff of the municipality was trained in the application. Within the first hour of training, one staff member could carry out the legal verification of the applicants and parcels at the pace of maximum 10 minutes per applicant.

In an internal report on the Kadaster-IGAC cooperation in Cumaribo, including experiences of Vistahermosa as well, one of the conclusions was: Complete receptivity of the methodology by the IGAC team, who see its validation and subsequent implementation in cadastral processes as viable: *“Total receptividad de la metodología por parte del equipo de trabajo del IGAC, quienes ven viable su validación y posterior implementación en procesos catastrales”*.

As part of the integration of FFP to municipal development plans several municipalities and mayors have expressed interest to include the FFP methodology into their municipal development plan and want to organize a pilot in their municipality. A plan is being made to carry out pilots in other regions, where for instance an Andean pilot is interesting, as to repair current bias in our geographical sample, now exclusively situated in Colombia's lowland tropics.

F. Communication

A communication strategy is written in the first year of the project. Part of this communication strategy was to construct a website (landinpeace.com) that is still used as the main site to publish information on the project in both English and Spanish. Besides this website, social media like Facebook ([Tierra en Paz](https://www.facebook.com/Tierra-en-Paz)), Twitter ([@LandInPeace1](https://twitter.com/LandInPeace1)) and especially Instagram ([@landinpeace](https://www.instagram.com/landinpeace)) is used to share news about the project.

In 2019, several news channels like for example the Dutch NOS op 3 and the Colombian Noticias Uno have published articles about our first pilots.

A short video that was made to show the fieldwork and public inspection is shown at the training of ESAP for the new elected mayors of Colombia. For this event an introduction was recorded and added to this video to point out to the mayors that the FFP method could be included in their municipal and regional development plans. This video is shared online by the Dutch Embassy.

At the moment, two videos of the pilots in Cumaribo are being released. One video shows the institutional cooperation in the urban centre to hand out titles to owners of the urban lots. The other video is about the land dispute between the indigenous reserve Santa Teresita del Tuparro and the neighbouring cattle farmers by presenting and discussing publicly the views and opinions of both parties.



Figure 6. Screenshot of the FFP video of the pilot in Cumaribo. Interview with indigenous leader Hernando Sanchez about indigenous lands. November 2019.

These videos will be used to show the Colombian government and public the issues with indigenous land in the country since these problems don't often get sufficient attention by the government. The method that is applied and shown in these videos can also be used as an example to resolve these problems. The two approximately 5-minutes during videos were recorded in November 2019.

Information on the objectives and results of the Land in Peace project was also given to several members of an official Dutch parliamentary mission to Colombia.

Table 12. Intermediate results of the Land In Peace project on Communication

Type of Outreach	Publications
Colombian Newspapers	Interview with Mathilde Molendijk in Colombian magazine Semana Rural (20-07-2019) <u>LINK</u>
Dutch Newspapers	Mentioned in article The Business Year by prime minister Rutte (07-10-2019) <u>LINK</u>
Colombian Radio/Television/Website	Reportage Noticias Uno 22-02-2020 <u>LINK</u>
International Radio/Television/Website	Blog Esri USA: How Mapping Land Rights Advances Peace (22-01-2020) <u>LINK</u>
Dutch Radio/Television/Website	Article NOS op 3 Hoe een Nederlandse app de grond van Colombiaanse boeren verdeelt (02-06-2019) <u>LINK</u>

Table 12. Intermediate results of the Land In Peace project on Communication.

Type of Outreach	Publications
Videos	<p>Public Inspection FFP Video <u>LINK</u></p> <p>Video for elected mayors and governors <u>LINK</u></p> <p>Cumaribo - Indigenous Land <u>LINK</u></p> <p>Cumaribo - Urban Centre <u>LINK</u></p>
Presentations	<p>Presentation Counsellor of Presidency C. Moreno (13-02-2019) Presentation at SEPER XI Education Days (28-05-2019) Poster Presentation World Bank Conference 2019 (28-03-2019) Presentation Colombian Senators Lunch Meeting 28-03-2019) Spindle Awards in the Netherlands (09-10-2019) Workshop Land Governance Conference Unicamp, Campinas Brazil (9-10-2019) Presentation at the educational day of KNAG (Koninklijk Aardrijkskundig Genootschap) (8-11-2019) Presentation at the CPCI Conference in Madrid (Permanent Committee of Cadastres of Latin America, Madrid) (12-11-2019) Presentation Universidad Distrital/Esri (22-01-2020)</p>
Papers	<p>World Bank Conference Land and Poverty 2019: Building trust in post-conflict rural Colombia (poster)</p> <p>World Bank Conference Land and Poverty 2020: Land boundary conflicts between indigenous land reserves and neighbouring cattle ranchers: “FFP” solutions in Colombia (Paper accepted, event canceled)</p> <p>FIG Conference 2020 Land boundary conflicts between indigenous land reserves and neighbouring cattle ranchers: “FFP” solutions in Colombia (Paper accepted, event canceled)</p> <p>FIG Conference 2020 The preservation of the Amazon forest by clearing property rights potential conflicts: an experiment using FFP (Paper accepted, event canceled)</p>

3. Planning for 2020

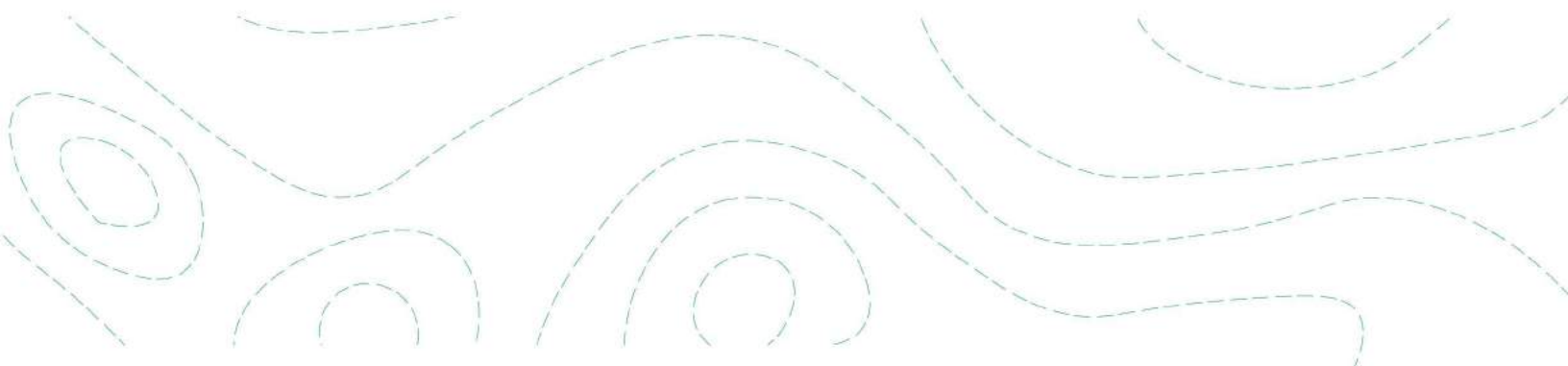
Because of the crises with the COVID-19 virus, there are many uncertainties at this moment. This chapter reflects the original planning for the year 2020.

Pilots

Kadaster will continue the support of ANT with the pilots in Vistahermosa and Apartadó that are in their final phase. ANT will analyse the information of the veredas Costa Rica, Termales, La Linda, La Balsa, El Tigre and Los Mandarinos in order to produce land property titles. The titling procedure in Cumaribo is ongoing. If possible more pilots could be done where needed.

National Rollout

- Capacity workshops on how to use the FFP methodology in Colombia will be organized for organizations like IGAC, SNR, ANT, based on the experiences in the executed pilots.
- The experiences from the project in Cumaribo with the indigenous community are presented in papers accepted for the World Bank's Land and Poverty Conference 2020 and the FIG Conference 2020. Due to the corona crisis these events are canceled and the papers will therefore not be presented. However, the experiences will be presented to Colombian land administration institutions which will have to include indigenous land issues in their work.
- As part of the Orange Knowledge Program, of the ITC, the Universidad Distrital Bogotá and Kadaster, FFP courses will be organized for teachers, land administration institutions and students to share the FFP method.
- Support to formulate a National plan to roll out the improvement of the Land Administration System will be sketched during the last months of the project.

- 
- We will go on convincing ANT officials on the virtue and feasibility of our methods, through better communicate with them, carry out a sandbox experiment with the Universidad Externado, exposing opinions of beneficiaries, having been sided up by other key land administration institutions (Igac, SNR, Agrarian Prosecutor), lobbying with public administration and legislation officials and by helping to prepare and execute extension courses at Sena and Esap.

Interinstitutional cooperation

- The dialogue with important land agencies like IGAC, SNR and ANT will be continued. A memorandum of understanding will be signed with IGAC, the Dutch embassy and Kadaster will be part of the update of the cadastre of the municipality of Cumaribo by organizing training and supporting the process. The aim is to involve ANT and SNR in this project too, as to create a multi-purpose project with different organizations cooperating.
- Start a training for trainers program in cooperation with SENA and with ESAP.
- Propose informative sessions with the Senate's and Chamber of Representative's Fifth Commissions, who are in charge of cadastral law making.

Local capacity development

Pilots and training will be organized in municipalities where mayors have shown interest to include the FFP approach in their municipal development plans, and the application of FFP leads to direct land property titles.

Other actions

- Start a cooperation with the Law Faculty of the Universidad Externado to examine how through the application of "sand box models" experimental judicial situations can be created to be used for speeding up the legal process of titling rural parcels. First, the existing legal framework will be analysed, which should leave enough room to apply FFP methodologies leading to land property titles.



- Investigate if the Mascapaz project of the European Union could be continued. Tiling 800 parcels in four municipalities in the department Meta.

- Participate in a consortium with Tropenbos and ICCO to present a proposal to the Dutch Land at Scale Program.

- Extension of the current project with two years and additional funding. The challenges are huge. As Kadaster is now working in the capillaries of the land regularization process in post-conflict rural Colombia, we see procedural and institutional bottlenecks at the local level, such as unclear procedures, unnecessary costs for farmers and governmental agencies not pulling one line, within their organization, and between the organizations. Many recent administrative dispositions appear as a colossal obstacle to efficient land title formalization and adjudication of state land. These dispositions can be adjusted to better procedures. These challenges are time consuming and too big to handle within 2020, and for that a separate extension will be requested. We cannot stop halfway now that such great progress is being made.

