

Land as the enabling asset on a value chain for rural development in Colombia's rural reform

1. Introduction

Land could be considered as the main active asset for production on rural territories. Evidence has shown that "(...) property rights in land are closely associated with the productive efficiency of agricultural resources as well as investment decisions." (Kassa, 2014). Consequently, land property rights have important consequences over the economical activities in rural zones, as well as in the income generation of rural homes. The latter happens due to the fact that property rights condition the productive decisions of rural homes, in the same way that land is the most relevant productive asset in agricultural productivity (Lajaaj, 2017).

In the same way, "with ownership officially documented and verified, the risk of challenges to ownership will be reduced, and the likelihood of having to incur in high costs in defending one's possession of land will be lower (...) and land productivity will be increased" (Feder and Nishio, 1999 in Kassa, 2014). Additionally, when providing tenure security it can enhance investment, facilitate the use of land as a collateral and impact the gains-from-trade effects (Besley, 1995; Feder, 1988 in Holden Deininger, 2009).

As stated above, literature has shown that property rights and land tenure security, especially in rural contexts, can impact positively the way in which rural activities develop. Therefore, in order to design public policy that promotes and ameliorates rural territories, land policies and regulation must be a priority.

Land should be considered as the enabling element for rural and productive development, as a value chain that conceives land as the asset where all productive activities take place. With productive activities, an effective public goods' provision can be implemented as it responds to a specific demand from the activities already proven to be productive on the territory. Finally, a data oriented decisions are needed to achieve social cohesion through rural public policy that allows complete knowledge of the subject population on the policies designed. Therefore, land, productivity and public goods, with a correct targeting of population's needs, create the conditions for an effective rural development.

Even though all elements are fundamental for generating rural development, land is an enabling requisite for the rest of the value chain to effectively develop rural areas. For that reason, a special emphasis is placed on land, as it is the first element on the value chain that leads to social cohesion in the rural context.

In the following paper, Colombia's rural policy is explained, taking into account the land as the initial point for rural development. The paper makes a brief description of the context of rural land in Colombia and its importance in rural contexts.

Additionally, it aims to describe the three main elements of the policy, which are explained as a logical chain. Finally, the policy concludes land as the enabling asset that can lead to rural development and to the gap closure between urban and rural territories by ameliorating habitable conditions in rural contexts.

2. Colombia's context

Colombia has been immersed in an internal conflict for more than 50 years, which has led to socio-economical consequences among the whole territory, in which rural areas have been the center where conflict has developed (Lajaaj, 2017). Specially, the concentration of land in the hands of a few has been identified as one of the main causes of confrontation (Lajaaj, 2017). Therefore, this ended up in people leaving their properties without any supervision or protection, so people lost their goods having no other economical resource.

With no land for farmers to explore, productive projects were lost and public goods were left with no supervision or control, leading to inefficiencies in their operation. Consequently, internal conflict also led to a lack of knowledge from people and activities that were happening in the country side. The latter then concluded in a lack of information to make efficient decisions taking into account the real situation in the country.

Now, with a changing context on rural issues is happening which is related to the Country Mission on 2015 that proposed an integral rural. The latter relies on the agricultural and rural development sector of implementing all actions related to the rural territory through the Ministry of Agriculture and its implementing agencies. One of the main issues discussed in this point is regarding land as the turning point of conflict and consequently to the difficulties of developing productive activities in the country.

Taking into account the situation described above, the design of a rural policy that gathers the issues concerning rural activities and how to improve the quality of life of the population living in the country is fundamental so the gap between rural and urban territories can decrease.

3. Public policy for rural development

3.1 Land

In Colombia, 54% of rural land has informal or imperfect technical or legal situations that generate a legal insecurity that limits rural investments and access to institutional offer (IGAC, 2017). Additionally, 74% of municipalities which cover 67% of the rural territory in the country and 63% of the lots located in rural areas have an outdated cadaster. The latter, has consequences in the low collection rate of municipal revenues destined to investment in rural areas.

Based on information gathered by the Rural and Agricultural Planning Agency – UPRA, Colombia has approximately 3.691.000 million rural farms that have been identified, from which 54,3% are exploded without a land title. This constitutes a barrier to access finance services and limits the development of rural processes in the territory. From the 1.122 municipalities from which the tenure informality Index was calculated, 288 present a percentage of informality between 75 and a 100 percent; 429 municipalities present a percentage of informality between 50 and 75 percent; 334 municipalities present a percentage between 25 and 50 percent; and just 68 present an informality index between 0 and 25 percent. Among the departments with the highest informality in the country are: Boyaca, Cundinamarca, Nariño, Antioquia, Cauca, Santander and Tolima¹.

The Ministry of Agriculture, therefore, is compromised with the formalization processes of rural property through a massive property sweep, working together with the National Cadaster Authority – IGAC and the Superintendence of Notary and Registry – SNR, in order to articulate cadaster and registry as a tool for efficient planning. The Ministry will enable the National Land Agency – ANT as a cadastral manager, in order to create formalization synergies between the ANT and the Land Restitution Unity – URT, to facilitate the retrieval process and land restitution to victims of abandonment and disposition.

In order to develop and strengthen the integral land policy, it is required to:

- Adjust normative and procedural context, as well as instruments and methodologies to make more efficient titling processes in the country
- Strengthen technical and operative capacity of the ANT to make formalization oriented to results
- Strengthen the link between agricultural sector's policies, plans, programs, strategies, and incentives with rural property formalization.
- Articulate with the environmental sector in the definition and execution of strategies to formalize or assign rights of use in strategic environmental areas.
- Revise and adjust normative context applicable to formalization processes in order to accelerate it and strengthen it.
- Advance in formalization processes with massive property sweep, through the qualification of the ANT as a cadastral manager, creating synergies with the URT, IGAC, and the SNR.
- Formulate and implement a strategy in the agricultural border that promotes productive reconversion and efficient use of land.
- Work in an articulated way with the Ministry of Environment and Sustainable Development – MADS to define integral strategies that allow sustainable use and occupation of strategic environmental areas.

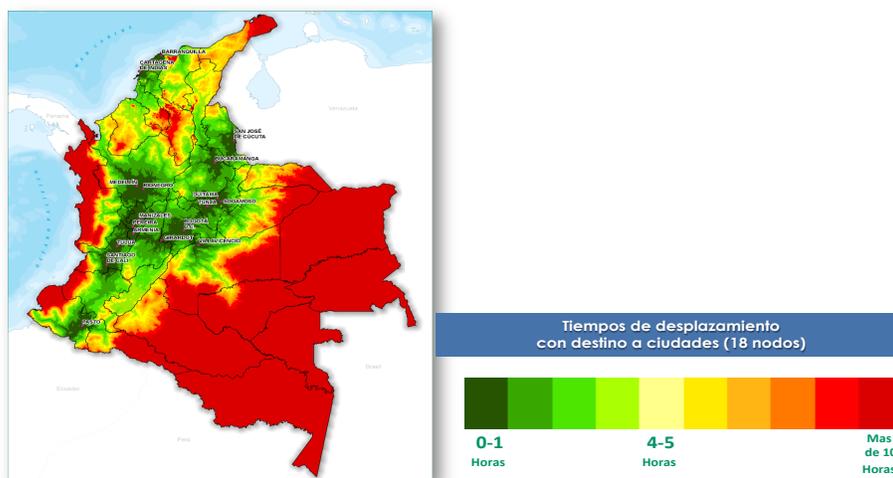
¹ IGAC, 2014, Estadística Catastral Nacional Rural. IGAC, 2013, Consolidado de la Interrelación Catastro Registro. IGAC, 2014, Estadística Catastral Nacional Rural. IGAC, 2013, Consolidado de la Interrelación Catastro Registro. <https://www.upra.gov.co/documents/10184/13821/%C3%8DNDICE+DE+INFORMALIDAD/6fafd775-1265-4941-b1ec-20af44d38049>.

3.2 Public goods

The provision of rural public goods has been deficient, both in sectorial public good as in the non sectorial public goods that impact directly the production and the quality of life in rural areas. One of the most important issues to take into account is the lack of connectivity of rural areas due to absence of road and internet connection.

Tertiary road network in Colombia is 75% in a state of deterioration. This is a factor that impacts 68% of rural zones that are located farther than 5 hour distance from big commercialization centers and the 49% of the zones that are located farther than 10 hours to these points (UPRA, 2017). This deficient infrastructure to connect rural areas decreases the sectorial competitiveness due to cost increases of production. In the same way, Internet connectivity is also deficient, as only 17% of rural homes have an Internet connection (DANE, 2017).

Distance from rural areas to large cities



Additionally, irrigation systems only cover 6%² of the 18.456.158 millions potential hectares suitable for agricultural development in irrigation and drainage, according to the Conpes³ document 3926/2018. The document states that the low coverage of this service in the country explains mainly the weaknesses of planning purposes of land adequacy on the median and long run. This is reflected in low levels of investment and lack of articulation with territorial entities, environmental

² Which constitutes 1.1 million hectares with this service

³ The National Social and Economic Policy Council is the highest planning authority in Colombia of all aspects related to economic and social development.

institutionality and private sector to boost agricultural projects integrated with land adequacy. Additionally, more than a quarter of the extant infrastructure does not operate correctly which requires a rigorous maintenance plan in order to use them for productive activities.

In the next four years, the Ministry will destine at least 50% of the sectorial inversion towards the provision of goods and services that will favor the generation of enabling conditions for the sector's productivity and competitiveness. The development strategy requires strengthening the sectorial programs oriented to the provision of rural public goods and services. The latter requires as well, the coordination with the Ministry of Transportation, the Ministry of Technologies, and Ministry of Commerce in order to ameliorate the quality and coverage of infrastructure associated with digital and road connectivity in order increase efficacy in the agricultural commercialization and the connectivity of productive zones with internal and external markets.

3.2.1 Land Adequacy

The Ministry, through the Rural Development Agency (ADR) will design and execute an eight year plan of infrastructure extension for irrigation and drainage. This plan will mainly gather private investment through the constitution of Public-Private Associations (APP) that will aim to increase the access of producers to irrigation and drainage over the base of a more efficient regulation of the sector.

Land adequacy needs to overcome the focus of the first project's generation, which was characterized by the construction of infrastructure and equipment operation. Now, it should be oriented to formulate and implement an integral policy that promotes agricultural productivity, incentive private investment and promote efficient use of water in a climate change context. This change is materialized in the institutional strengthening for operating public irrigation districts and to ameliorate the advising and assistance conditions to private projects. Additionally, strategies oriented to reinstate the extant irrigation districts are needed, as well as the construction of great scale projects with a large number of beneficiaries taking into account co-financing schemes that articulate public and private resources. This strategy aims to increase agricultural productivity and efficient management of hydric resources through a land adequacy integral policy. The policy must define the financing strategies and alternatives for reinstatement and improvement for extant projects.

To develop this strategy the following is needed:

- Define strategies to ameliorate and reinstate extant land adequacy projects
- Co-finance great scale land adequacy projects with benefits to the largest number of beneficiaries.
- Guarantee the technical assistance for projects benefited by land adequacy projects

- Strengthen institutional and technical instruments for the correct operation of irrigation districts.

3.2.2 Housing

In 2017, rural housing deficit was of 48.5% due to the housing shortcomings such as overcrowding, structure, space and availability of domiciliary public services. In order to overcome this issues, a more integral vision of the rural housing policy must be implemented. This policy must be related with production factor's limited capacity to accumulate productive assets, informality in land tenure, access and public services coverage, housing conditions, insufficient information about rural housing, among other (Rural Mision, 2015; Housing program evaluation, DNP, 2012).

The Social Rural Interest Housing Program aims to articulate investment and management of rural non-sectorial public goods with new housing projects or improvements. This must be done in coordination with other ministries on issues such as roads, energy solutions and other domiciliary public services. With this purpose, the Ministry of Agriculture will provide technical assistance to municipalities for the formulation of investment programs for public works.

The criteria for territorial prioritization and focalization of rural housing solutions took into account the land policy mentioned before. Therefore, territories focalized already had formalization plans or income generation plans, so that houses were located strategically to decrease land problems and to encourage other productive activities to occur. In this way, the Ministry aims to ameliorate habitability conditions for rural inhabitants by increasing their quality of life and by strengthening their capacities for rural development.

Taking into account the elements related to rural goods and services, the following is needed to accomplish all objectives:

- Position rural habitability as a rural development factor
- Decrease habitability deficit (quantitative and qualitative)
- Promote the implementation of alternative financing
- Adequate extant normativity for rural sector needs
- Develop flexible policy instruments for rural contexts that assist integrally the characteristics of rural inhabitants with other governmental policies (access to drinking water, electricity, public services in general)
- Legal regulation of technical guidelines for public service provision of land irrigation, such as: subsidy for land adequacy, modify public-private associations schemes to include this type of financing scheme for irrigation districts.

3.3 Productive activities

The gap between urban and rural development is noticeable in the monetary poverty and multidimensional index. In 2017, rural monetary poverty was 50% higher than the urban one, and extreme rural poverty was three times higher than that in rural areas. In the same year, the impact of multidimensional poverty for urban municipal centers was 11,3%, while in the rural territories it was 36,6% (DNP, 2018).

According to data of the Agricultural National Census (2014), in the rural zones coexist more than 2,7 million producers, of which 26,7% live permanently in the country side (725.000 persons) and occupy 12,3 million hectares (63,6% men and 36,4% women). Producers that are non-residents (1,9 million persons) occupy nearly 28,3 million hectares.

The average age of producers who live in the disperse rural area is of 50 years old and their predominant level education is elementary (58%), which foresees a population aging and a forfeit of population dynamism compared to urban zones. This is due to the migration phenomenon to the cities, especially from population younger than 30 years old, caused by the pursuit of better jobs and education.

Agricultura sector continues to be the main employer of the rural sector, nevertheless, producers' income are still very low. In 2017, from all occupied people in rural zones in Colombia (4,9 millions), the agriculture, silviculture, hunting and fishing sectors absorbed 61,8% (3 millions). The agricultural employment in rural zones is characterized by being informal independent, with no regular salary, and depends on the seasonality of the production. The latter cannot guarantee a formal scheme, which prevents a stability in the producers' income.

Based on the elements described above, is possible to conclude that the main problem of labor market related to agricultural activities is not the unemployment but the low quality and remuneration of the activities. Therefore is blatant that "a strategy to improve rural income is needed, and in order to keep generating employment with more productivity the sector needs to find nuclei where demand of these products is large" (Leibovich, et al, 2006).

The Ministry, through the Rural Development Agency – ADR, will pursue the entailment of small producers to short commercialization circuits, productive concatenation and public purchases, especially with educational, health and justice sectors. With these institutions the Ministry will manage the quality criteria to buy agricultural products.

The Rural Development Agency will manage with other institutions and will foment and finance the producer's inclusion in the markets. The latter can be done with certifications so that they comply with national and international standards; the declaration and implementation of origin denominations; the promotion of business models that articulate small producers with agroindustry; the commercial associations; the promotion of food consumption with the brand "Produced in

Colombia”; and the access to specific information, prices and costs about small and medium producers.

3.3.1 Agrologistics

The National Agrologistics Plan, as a Ministry strategy, includes all activities in the supply chain that are necessary to conciliate the offer of agricultural products with the market demand. This strategy aims to potentiate agricultural sector competitiveness by including determinant elements in the final phase of the supply chain. The latter is looking, on one hand, to increase the impact of infrastructure improvements for commercialization, and on the other hand, that small producers appropriate knowledge that improves enlistment and transportation of their products. This strategy will reduce monetary costs and the time associated with market entrance, preparation, presentation, enlistment and transformation of agricultural production.

In order to design and implement the National Agrologistics Plan is fundamental to have available updated information. Therefore, it will be needed to articulate with the National Logistics Observatory and with the private sector so it can be analyzed its feasibility and establish local and regional logistic platforms for agricultural commercialization. The latter must also be included in the same framework of the Conpes document 3547/2008 “National Logistics Policy”, so that all efforts are articulated with the National Planning Department and the Ministry of Transportation, as well as with international organizations that have had experience with technical assistance associated.

To structure and implement this plan, it is required the following:

- Coordinate the information acquisition that can diagnose the main obstacles associated to agricultural product's commercialization.
- Provide supplies related to localization, typology and nature of public investments (roads, productive infrastructure, among others) that facilitate overcoming diagnosed obstacles.
- Identify the costs associated with commercialization that can determine integrally the cost effectiveness of productive processes.
- Programs focused to develop logistical platforms based in sectorial public goods dotation, through the design of a basic replicable project.

3.3.2 Income generation

The Ministry of Agriculture will provide to certain non-formal laboral groups of people technical and financial services to start their entrepreneurships (agricultural and non agricultural) in rural zones. The basic plan supposes an instruction in the activity, as well as technical and administrative accompaniment en the arrangement of their businesses. Additionally, the program will provide rural entrepreneurships services for conformation and strengthening of solidarity organizations, in order to create grater product volumes, unify production quality and gain negotiation power

in rural markets. The latter added to the analysis of production chains to ameliorate distribution routes and other commercialization circuits. The objective is to assert which schemes allow to obtain more profit according to markets call.

Income generation must count with the promotion of rural entrepreneur's associativity to strengthen competitiveness in market products. Associativity enhances the strengths of ventures, decreases market entrance barriers, facilitates production technification favoring the reduction of production costs and creating more and better opportunities for rural population.

Specifically, the interventions related to income generation to rural population, must be complemented by better population focalization processes, geographical concentration and organizational capacities identification. The formalization vocation and the orientation towards markets will also be fundamental in the prioritization of interventions.

Additionally, the Ministry of Agriculture and Rural Development will promote processes associated with income generation for rural contexts that transcend agricultural activity, recognizing that these activities are an integral part of the territorial development processes.

For its structuration and implementation it is required the following:

- Define routes for income generation that conduce to better remuneration conditions for rural jobs (more labor formalization).
- Identify possible nuclei of rural entrepreneurships that consider agricultural issues, as well as other rural activities such as tourism, environmental conservation and other rural services
- Promote processes and interventions to foment and strengthen associativity as a functional tool to production factors, financial inclusion, public goods' management and administration, and solution to commercialization schemes.

4. Conclusion

Colombia's rural policy for the next four-year period aims to create a value chain process in which three main elements are taken into account for territorial development. The policy seeks equity in rural territories by providing equal opportunities to population, by closing the gap between urban and rural environments. Therefore, public policy must add up elements that together contribute for rural development and productive development. These elements take into account land access, productivity, public goods' provision and take into account rural population as a transversal element to analyze.

Land is the enabling element for rural and productive development, as a value chain that conceives land as the asset where all productive activities take place, so those who develop any kind of activity can access a land free of legal problems. Then,

productive activities can be developed and adapted to land use previously defined by territorial entities. With productive activities, an effective public goods' provision can be implemented as it responds to a specific demand from the activities already proven to be productive on the territory. Finally, a database tool is needed to achieve social cohesion through rural public policy that allows complete knowledge of the subject population on the policies designed. Therefore, land, productivity and public goods, with a correct targeting of population's needs, create the conditions for an effective rural development.

Even though all elements are fundamental for generating rural development, land is an enabling requisite for the rest of the value chain to effectively develop. For that reason, a special emphasis is placed on land, as it is the first element on the value chain that leads to social cohesion in the rural context.

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