# GLOBALIZATION AND INDUSTRIALIZATION OF AGRICULTURE: IMPACTS ON RURAL CHOCONTÁ, COLOMBIA

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Recibido el 11 de julio de 2015, aprobado el 30 de octubre de 2015 y actualizado el 25 de mayo de 2016

**DOI: 10.17151/luaz.2016.43.20**

**ABSTRACT**

The policies implemented in Colombia for the past 40 years addressing domestic production have focused on the promotion of industrialization and increasing economic growth. These policies boosted production in different areas including livestock and monoculture cultivation. However, alongside this increasing productivity is the transformation of the landscape and disappearance of local knowledge that continues to be ignored by the global market.

This paper analyzes the changing landscape brought about by the expansion of livestock production and industrialization of agriculture in rural areas of Chocontá, Cundinamarca emphasizing on local people's perspectives. Using semi-structured interviews, life history elicitation, farm visits and activity recall during their waking hours, the paper presents how agricultural knowledge is "lost" and how new species and varieties of plants are introduced as well as how traditional crops "disappeared" because of these economic changes. In addition, the paper also examines how small-scale farmers negotiate their socio-economic conditions in order to survive, given the limited options they have. The impact on gender roles is also examined. It shows that because of the transformation, small-scale farmers are confronted with economic dilemmas that change the traditional activities related to gender roles. Women for example, are no longer contained in private spheres, but are also working outside the households, sometimes even being preferred to men to work as laborers in large farms. The paper concludes with the discussion of the future visions of local people about the transformation of their area as well as its implications on the future of rural Chocontá.

**KEY WORDS**

Globalization, agro-industrialization, landscape transformation, local knowledge, gender roles.

## GLOBALIZACIÓN E INDUSTRIALIZACIÓN DE LA AGRICULTURA: IMPACTOS EN RURAL CHOCONTÁ, COLOMBIA

**RESUMEN**

Las políticas implementadas en Colombia durante los últimos 40 años que abordan la producción agropecuaria interna, se han centrado en la promoción de la industrialización y el aumento del crecimiento económico. Estas políticas impulsaron la producción en diferentes áreas, incluyendo la ganadería y la producción de monocultivo. Sin embargo, junto a este aumento de la productividad se ha dado la transformación del paisaje y la desaparición de conocimientos locales, aspectos que continúan siendo ignorados por el mercado global.

En este trabajo se analiza la transformación del paisaje provocado por la expansión de la ganadería y la industrialización de la agricultura en las zonas rurales de Chocontá (Cundinamarca) desde las perspectivas de la población local. A través de entrevistas semiestructuradas, colección de historias de vida, visitas a las fincas y recuento de las actividades diarias, este artículo presenta que por causa de estos cambios económicos se están perdiendo conocimientos locales en agricultura, así como la desaparición de cultivos tradicionales y también cómo se han introducido nuevas especies y variedades de plantas. Además, el documento examina cómo los campesinos negocian sus condiciones socioeconómicas, dadas las limitadas opciones que tienen para sobrevivir. También, se indaga el impacto en los roles de género, que manifiesta que debido a la transformación de producción los pequeños agricultores se enfrentan con el dilema económico que cambia las actividades tradicionales relacionadas con los roles de género. Por ejemplo, las mujeres ya no se encuentran solamente en el ámbito privado, también están trabajando por fuera de los hogares, incluso algunas veces las prefieren para trabajar como jornaleras en las fincas grandes. El documento concluye con la discusión de las futuras visiones de la población local acerca de la transformación de su zona, así como sus implicaciones en el futuro de lo Chocontá rural.

**PALABRAS CLAVE**

Globalización, agroindustrialización, transformación del paisaje, conocimiento local, roles de género.

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**INTRODUCTION**

Globalization has been defined, described and presented according to different perspectives. Its connotation changes from one day to the next and between different locations and situations (Edelman & Haugerud, 2005). For many, it is the integration to the global market through trade, migration, foreign investment, where

technology improvement in communication and transportation plays a big role (Ferguson, 1999; Friedman, 2005; Grau & Aide, 2008). In the process, the "economy, politics, culture and ideology of one country penetrate the other" (Mittelman, 1997, p. 3). For Bourdieu (2001) globalization is a concept that has replaced modernization and tends to follow the same trend of classifying the countries from the most advanced to the least advanced society. Néstor García Canclini (1999 cited in Edelman & Haugerud, 2005) on the other hand, explained that for people working in multinational corporations, globalization includes the countries where they execute full operation, all the activities they implement and the competitions they face. For example, globalization involves outsourcing of production so that the majority of operations are carried out outside developed countries. This explanation is further expounded by Cox (1997) when he underscores that capital, because of the global economy manages to select sites in the world where they can situate production processes, taking advantage of the labor costs, political situations, (lack of) environmental regulations and trade agreements.

The trade agreements and multilateral negotiations that reduced many trade barriers allow multinational corporations to maximize profit and dominate economic forces particularly in developing countries. For example, commodities all over the globe become free-flowing which increases global supplies and results in the lowering of average world prices (Elliott, 2004). This has affected many farmers in the developing world because they are forced to compete with large agriculturists from developed countries who are subsidized by their government (Teubal & Rodríguez, 2002; Ripton, 2006; Thu, 2009).

Furthermore, the unconstrained movement of different goods facilitates the expansion and industrialization of agriculture in the developing world because multinational corporations can easily distribute inputs such as fertilizers, pesticides and machineries that industrialized agriculture depend so much on (Thu, 2009). Hence, small-scale producers are forced to face challenges associated with these changes affecting their livelihood strategies including their relationship with nature and how they use the land.

Forman (1995 cited in Etter, Alpine & Possingham, 2008, p. 3) explains that "land use is the interaction of humans and the biophysical environment". It is through this relation that humans manage to change the environment in an accelerated manner because of their socio-economic and cultural activities. Etter et al. (2008)

emphasize that understanding the transformation of the landscape should always be considered in relation to its cultural circumstances and people's economic goals.

Colombia, just like any other developing country, has experienced many land transformations brought about by the changes in land use. As archeological evidence shows Colombians had changed the use of land through plant cultivation even prior to the colonial period and this practice was reinforced when the Spaniards arrived and introduced intensive agriculture and animal husbandry (Etter et al., 2008). By the mid-20th century, many parts of Colombia had adopted agricultural technologies in their production systems including the use of chemicals, farm machinery and mono cultivation that further transformed the rural landscape. For example the study carried out by Taussig (1978) on peasantry in Cauca Valley showed that as the subsistence farming system converted into a capitalist mode of production, small peasants were negatively impacted because they were forced to sell their lands to big producers to pay debts incurred by trying to compete (i.e. purchase of inputs) with the capitalist farmers. Aside from the conversion of production systems, more and more multinational corporations are purchasing big parcels of land for commercial cultivation. The Oxfam Briefing Report of 2014 reported that Cargill –one of the world's largest traders of certain commercial crops such as corn and soybeans– has evaded the restrictions of maximum size of landholdings, by buying as many public lands as possible in the Altillanura region in the Department of Vichada to be used for extensive cultivation. Of course, there are also other factors that continue to transform the landscape of rural regions such as the introduction of illegal crops, increased armed conflict and forced migration, just to name a few (Acuña, 2011), but the change in production system is one of its major drivers.

This industrialization model for rural development continues to persist as demonstrated by the expansion of potato, strawberry and flower industry in rural regions close to Bogotá. Its impact, however, is detrimental to small-scale farmers because of the limited capital that farmers possess preventing them to participate and compete in the global economy. The report of UNDP (2011) about the rural situation in Colombia clearly presents these problems that rural residents face. UNDP explains that "[Colombia] constructed a model of development that leads to the failure of the rural world, focusing more on the market… which expanded the gap between the urban and the rural" (p. 10). This situation has, in fact, continued to increase the inequality among the rich and the poor and exacerbates poverty and violence among the rural people pushing them to migrate to the cities where they try to find urban employment. For those who stay in rural areas, families struggle to

survive because of the high production cost that forces many to abandon agriculture and engage in cattle production.

This paper discusses how the process of globalization, as manifested through agricultural industrialization, affects the landscape and lifescape2 of a rural municipality in Colombia. Specifically, I tried to answer the following questions: a) what were local peoples' views of the changes that took place in their landscape? b) how did the landscape transformation affect crop diversity and local knowledge as well as the traditional gender roles? and c) how do rural communities perceive the future in the context of the changing landscape?

I start my discussion with general information about the study area, followed by a presentation of the changing landscape and how people perceive this transformation. I then talk about the knowledge that is lost, not only of plants, but of technologies and traditional practices as well, as local people try to adapt to the changing economy. This is followed by my analysis of the gender division of labor and how this affects the way men and women try to negotiate their position in the household. I end the paper with a reflection on rural Chocontá as it confronts changes brought about by a globalizing world.

## RESEARCH METHODS

This study is qualitative in nature. Its main research methods consist of semi-structured interviews, life history elicitation3, farm visits and activity recall4, carried out intermittently in the months of June to November of 2011 and from January to February of 2012. Prior to undertaking the actual interviews, I first undertook initial visits to farms and houses in May and June of 2011 to establish rapport and to make formal arrangements for my formal interviews.

I used semi-structured interviews and life history elicitation because these techniques could provide more detailed information about the phenomenon I was studying, as by nature, these methods are more flexible in terms of structure compared to structured interviews. This gave me the opportunity to move back and forth between various items listed in my questions list (Gideon & Moskos, 2012).

A total of 21 individuals were intentionally selected using the following criteria: a) small-scale dairy producers; b) residents of Chocontá for at least five years; and c)

were willing to participate in the research. Even though I had these criteria for selection, I still tried to have a maximum variation of participants (in terms of years of residency and age bracket) to ensure that I would be presenting different perspectives of the phenomenon that I was addressing (Creswell, 2013). For the activity recall method, only 14 (eight women and six men) participated because the rest of the respondents were not comfortable sharing activities that they do in the privacy of their homes.

My local research assistant who is from the municipality served as the initial contact person who introduced me to the community. Having a local assistant proved to be very important and crucial in the research because the assistant is known and trusted by the members of the community, a big advantage for a foreign researcher like me.

**Site description**[5]

The Chocontá municipality is located towards the north east part of the Department of Cundinamarca, 75 km from Bogotá, the capital of Colombia. It is bordered to the north by the municipalities of Villapinzón and Lenguazaque; to the west by Suesca, to the south by Sesquilé and Machetes and to the east with the municipalities of Villapinzón, Tibirita and Machetes (Figure 1). It has a total land area of 301 $km^2$ where 1.44 $km^2$ is urban area (.48%) while 299.66 $km^2$ (99.52%) is the rural sector. The average yearly temperature is around 13°C and it has an altitude of 2,655 masl.

The municipality is highly mountainous, but it also has large flat areas, especially near the river Bogotá. Seventy percent of the total population (16,569 people - DANE, 2005) is devoted to farming, making it the first income generating activity in the municipality (Concejo Municipal de Chocontá, 2008).

The main crop cultivated at this altitude is potato (***Solanum tuberosum***), with a total production of around 15-20 tons per hectare per year. Other crops include beans (***Phaseolus vulgaris***), peas (***Cicer arietinum***), and strawberries (***Fragaria vesca/ananassa***).

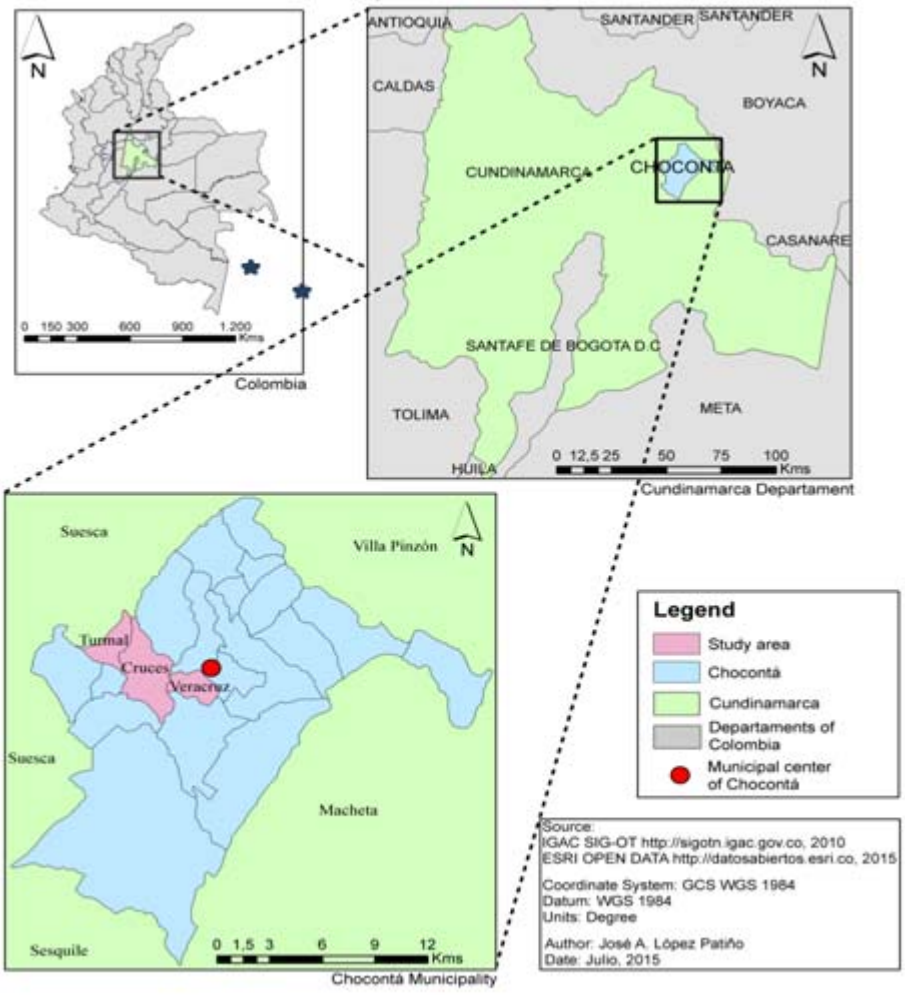



**Figure 1.** Location of the study area: Chocontá, Cundinamarca.

## RESULTS AND DISCUSSION

### The changing landscape

As is reported in many rural regions of developing countries experiencing economic transition, people of Chocontá have also observed a number of transformations in their area. The original settlers reported that 60 years ago when the area was covered with páramo[6], the landscape was dominated by frailejones (***Espeletia*** spp.)[7]. Ten years later, people started to cultivate various crops such as wheat (***Triticum aestivum***), garlic (***Allium sativum***), barley (***Hordeum vulgare***) and potato along with other crops such as string beans (***Phaseolus vulgaris***),

lentils (***Lente viridis***), and hibias or ocas (***Oxalis tuberosa***). One resident woman reminisced that:

> (…) the area [Chocontá] used to be so pretty, people cultivated potato, garlic, barley, beans; but now all of these crops are disappearing; before there was lots of natural environment like trees, eucalyptus, pines, all these. There [pointing towards the mountainous region] in the higher part, it was a páramo and it was covered with pine trees. (42 year old woman, personal communication, October, 2011, author's translation from the Spanish original)

During those times, the majority of small-scale farmers were living in the flat regions of the municipality and the ***páramo*** was used to get materials for cooking, cultural activities as well as for grazing animals as remembered by this 66 year old man:

> At that time, the land in the ***páramo*** was worthless. It was a place covered with vegetation not good for crops; it did not have economic value. What it was then was barren land; it had communal use to graze sheep and horses of residents coming from the villages of ***Santa Rosa, Manaca***, Cruces and ***Turmal***. Almost all villages left their animals in the ***páramo*** under the supervision of the youngest member of the household; they left the animals to graze during the day and collected them in the afternoon to bring home.
>
> These lands were also sources of raw materials for everyday activities such as fuel for cooking, the leaves and heart of ***frailejón*** were used to light the fire to prepare food; similarly, these materials were used for some festivals like the Bonfires of December in honor of the Virgin; the ***frailejón*** was also used to make rope used to pull several oxen. (Personal communication, 11 of September 2011, author's translation from the Spanish original)

According to the settlers, the landscape started to change when commercialization of crops (i.e. the case of potato) was introduced in the 1960s. This was the start of modernization and industrialization of agriculture in the area and also the beginning of the transformation of the***páramo*** landscape. The demographic pattern also changed as large-scale, absentee landowners[8] started participating in agricultural activities in the region. According to some original residents, these new actors are

city dwellers who buy big parcels of land to cultivate commercial crops such as potato. Usually these individuals do not live in the rural area but hire caretakers to manage the farm. With the introduction of commercial crops, small-scale farmers were pushed out of the flat lands and forced to live in the more mountainous areas, because the former did not have the financial capital needed for commercial farming.

For a time, the big landowners maintained potato cultivation at the lower elevation for commercial purposes. However, as the cost of production increased due to high prices of chemical inputs and labor cost (potato production is very labor-intensive, Restrepo, 1997 as cited in CIP World Potato Atlas, 2009), the commercial farmers commenced cultivating at the higher elevations as well. This is because potato cultivation is more productive on virgin land as the soil is still free from any soil-borne diseases and does not need high chemical inputs (Chujoy, CIP plant breeder, 1998, personal communication). With this change, small-scale farmers were faced again with the same problem of lack of financial capital to compete with big landowners.

Potato continues to be the main crop in the area covering the biggest proportion of land appropriated for crops (850 has. in the municipality are planted with potato, 2011 data, Chocontá, Cundinamarca, 2014). Strawberries are also starting to become an important commodity, but only a few farmers cultivate this crop mainly because of its high production costs. A study done by Arango (2010) showed that to cultivate strawberry, a total of 40 million pesos (approx., $20,000) investment is needed for 40,000 plants. A 33 year old male resident further explained that “For small-scale farmers who could not compete with big landowners, they relied mainly on their animals particularly cattle for survival”.

Although animals have been part of the farm since people started engaging in agriculture (Ausdal, 2009), they were used primarily for land preparation and for transporting produce to the local market. In a focus group discussion (November 1, 2011), the participants mentioned that the types of animals have actually increased over the years because of the introduction of other minor species that are good for the market (chicken, turkey, sheep). However, the ***buey*** (ox) that they used to utilize a lot in the past is now disappearing. A few families still keep this animal for transport and for land preparation, but the majority of settlers are using tractors for the latter and vehicles for the former.

Although cows were introduced during the colonial era (Ausdal, 2009), cattle farming started to become a major activity in the country only during the late 1980s (Hanratty & Meditz, 1988) and developed into the main source of income by the late 1990s. This change can be attributed to many factors including the growing leather business (Hanratty & Meditz, 1988), increasing demand and consumption of animal products like cheese and milk within and outside the country and the impact of structural adjustment (i.e. privatization and free trade, Balcázar, 2003). Ausdal (2009) also cited other reasons including: 1) cattle association with prestige; 2) capital reserve; and 3) territorial control where big landowners use cattle production as preventive measure against expropriation because it demonstrates the productive use of the land.

The main reason however, for the increasing importance of livestock in Chocontá has to do with peasant's need to reduce production costs (for example, inputs like fertilizer and pesticides needed for crop cultivation are not needed for livestock production) and the diminishing labor availability because the majority of the youth has migrated to the urban areas. A 67 year old woman commented "cattle production demands less work because pasture is given by God, the grasses are eaten by the cows and they won't suffer in the market [referring to the decreasing prices of crops]". Livestock became one strategy that Chocontá's farmers employed to confront the problems related to the declining productivity of agricultural crops ***vis*** a ***vis*** cost of inputs. Nonetheless, during the interviews, some respondents reported that small-scale-farmers who could not maintain their farms were forced to sell the land or lease it out to big landowners and work as laborers for the latter.

On average, farmers in Chocontá maintain four cows that produce an average of 20 liters per day (2011 data, personal interviews). The milk is sold daily (500-800 pesos/liter, 2011 interview data) to independent milk collectors who go around the village every morning. Similar to big landowners who engage only in crop production, the few livestock farmers who own a large number of animals (more than 50 cows) are usually not from the community and do not live in the area.

The UNDP's study mentioned above notes that livestock production in Colombia is in fact affecting the agricultural potential of the country since much of the land area allocated for livestock is not even appropriate for this purpose and is, therefore,

underutilized. In 2011, IGAC (Instituto Geográfico Agustín Codazzi as cited in UNDP, 2011) data showed that 39.2 million hectares are allocated for livestock production, while only around 21 million should be dedicated to this activity. Even though a large portion of this area is located in the eastern plains of Colombia, a similar situation is starting to present itself in Chocontá as the drivers discussed previously have also resulted to the conversion of big portion of agricultural land and natural reserve to livestock production that is not even utilized to its highest potential.

Aside from the high cost of production, the environmental impact of the land use change is enormous because of the chemicals applied frequently to crops like potato and strawberries. With reference to potato production, the majority of farmers interviewed explained that the inputs needed to produce a competitive volume represent a very large investment, as illustrated by these narratives:

> It was better before, [people] were not spending that much for their land. The land preparation was done using animals: yoke now, to rent a tractor for one hour, one has to pay 40,000 pesos; now everything has changed, wheat or barley is no longer cultivated; all are pastures for cattle; for a small farmer, growing crops is not good because of the cost of chemicals and fertilizer. (66 year old male resident, personal communication, 11 of September 2011, author's translation from the Spanish original)

> (…) it is because the moment that you apply pesticide for the first time, it would calm the animals [pests], but once you stop applying it, these animals would increase [in number]; that's the problem, you always have to apply [pesticides] so that the animals do not increase in number. Once you stop applying, then more animals would appear, sometimes you don't even recognize what these animals are…

> … unlike before that we had good produce, the crops have good harvest. There was no problem like the problem that we are encountering today, just like this problem with potato called ***polilla guatemalteca***, it is a kind of pest that is so hard to control, most probably we won't be able to control this. Now the only way we can control this is using biological control, you cannot use chemicals because it would only be useful for a little while and then if you stop using the product [chemicals], the pest becomes prolific.

> This pest is a big problem because they multiply three times. (45 year old female resident, personal communication, 25 of June 2011, author's translation from the Spanish original)

The cultivation of strawberry presents an additional type of environmental problem as it uses many square meters of cellophane[9] to cover the ridges to keep the fruits from getting dirty.

The transformation of the landscape of Chocontá illustrates the challenges that farmers are facing nowadays. It was apparent from interviews and focus group discussions that even though the hacienda system was eliminated many years ago, farmers are still confronted with the dilemma of unequal concentration of wealth. Perhaps today land is no longer an issue, but making production economically viable is a problem that poor farmers are confronting (Jaramillo, 2001). The high costs associated to crop production that many small farmers could not afford forced them to change their livelihood strategies. In the worst cases, some of these farmers ended up with so much debt (with the bank or with friends) because of agricultural inputs that they needed to buy in order to have good harvest, that they were compelled to sell their lands; others tried to make ends meet by maintaining a small number of milking cows.

The transformation is obviously very marked in Chocontá's landscape, however, the impacts of these changes are also manifested on other aspects of people's lives such as the type of crops being cultivated, changing knowledge and practices about farming and shifts in the traditional roles being performed by men and women in rural communities. The following sections discuss these issues focusing on local people's perceptions and views of the cultural and social changes taking place in their communities.

**Disappearing crops, disappearing knowledge**

Misty eyed, Doña Josefa[10], a 64 year old woman, talked about how nice it is to live in the countryside. She said that the countryside offers fresh air, singing birds and plenty of food. She said while overlooking her village:

> To live in the farm is better than [living] in Bogotá [the city] for an old man/woman like me who cannot work on something heavy anymore, it is

> better to live on the farm, the atmosphere is better, you can be preoccupied with farm animals… there are more things to do here.

Another younger woman explained that “it is very nice [to live in the countryside], we live happy, very relaxed, you have everything at your hand, pure milk, chicken, eggs”.

This kind of sentiment is not unusual in Chocontá. Older people remembered the “good-old-days” when there was abundance of produce and plenty of food. The majority of residents interviewed mentioned that the diversity of plants varied over time. When the land use changed from a***páramo*** to an agricultural area, people saw it as a positive transformation. One original settler said:

> All these pastures that you are seeing now were crops, cultivated with wheat, beans, barley. In the past, everything was nice. Everything that is now covered with pasture was planted with crops. What was Chocontá before was full of people selling garlic and wheat. (76 year old male, personal communication, October 2011, author’s translation from the Spanish original)

Another male settler stated that:

> In the past, there used to be better living conditions. There was something else that influenced this. People cultivated more. They were more animated to plant crops, hence they ate better, they lived better. But what is happening now?… some people are very lazy, they do not take care of their crops, they do not plant at the right time, for this reason they do not have food to eat. (54 year old male, personal communication, October 2011, author’s translation from the Spanish original)

However, currently some of the crops like parsnips (***Pastinaca sativa***), flaxseed (***Linum usitatissimum***), and oca (***Oxalis tuberosa***) that could be found in the past, are no longer cultivated in the area while potato, beans and peas (***Pisum sativum***) are planted mainly for commercial purposes. A few farmers also cultivate corn (***Zea mays***) for home consumption. As mentioned in the previous section, strawberry is starting to play a significant role in the municipality’s economy, but the planting materials are 100% imported. The emphasis on a few commercial crops

worsens the already eroding plant diversity in the area (both in species and in varieties), a problem that has been reported for other Latin American regions as well (Nazarea-Sandoval, 1995; Piniero, 2006). The local people remember that there used to be many different types of potato (see Table 1) but now only a handful are being cultivated –those that are easy to grow (shorter development period) and produce big and plentiful tubers.

The erosion is not just happening in terms of the actual species. I noticed in my interviews that farmers had a hard time remembering old or traditional varieties that they used to cultivate in the past particularly of crops that they no longer cultivate. Nazarea-Sandoval (1998) in her research about sweet potato in Southern Philippines, highlighted that "knowledge is the first to go, even before genetic erosion sets in" (p. 46). She further explained that there is more and faster erosion of knowledge in areas where produce is commercialized. This trend develops because farmers tend to allocate a bigger portion of their lands for commercial crops (along with the more salable and uniform varieties) resulting in the neglect of traditional varieties. Consequently, farmers become more oriented towards the characteristics of marketable varieties that leads to disappearance of knowledge associated with traditional ones.

While there is varietal erosion for some traditional crops, it is worth noting that there is also an introduction of new varieties in the case of other crops (i.e. potato and strawberry). In interviews, farmers explained that the market dictates what crops (including its varieties) to cultivate hence, the new varieties –which tend to have more uniform characteristics in terms of color and size– are more widespread and easy to find in the market than traditional varieties. Additionally, some farmers mentioned that they did not want to cultivate traditional varieties because they need a longer period to grow as explained by this male farmer:

> (…) the old varieties, there are few people cultivating them today because it takes longer for a traditional variety to grow. For example this variety called ***Tocarreña***, it is a very delicate variety [of potato], you need to apply pesticide every 3-4 days, otherwise it would not give anything, everything will just be on the soil. (Personal communication, August 11, 2011, author's translation from the Spanish original)

**Table 1.** Crops and its varieties cultivated 30 years ago and at the present time

| Crops | Past Varieties | | Present Varieties |
|---|---|---|---|
| Potato (*Solanum tuberosum*) | Tocarreña<br>Pastusa<br>Parda pastusa<br>Única<br>R 12<br>Merego<br>Papa criolla<br>Tocana<br>Salentuna | Argentina<br>Ica Puracé<br>Ica Huila<br>Suprema<br>Merengo<br>Sabanera<br>Criolla<br>Pepina<br>Bandera | Parda pastusa<br>Diacol Monserate<br>Diacol Guadalupe<br>Ica Puracé |
| Lima beans (*Phaseolus vulgaris*) | Habas chiquitas<br>Habán | | |
| Strawberries (*Frageria ananassa*) | Trompos (old variety but also introduced) | | Present: Too many to mention, but all are introduced varieties from Chile |
| Peas (*Pisum sativum*) | Ojneia<br>Chiriana<br>Santa Isabel | | Nueve granos |

| | |
|---|---|
| ***Other crops:*** | |
| Coriander (*Coriandrum sativum*) | |
| Onion (*Allium cepa*) | |
| Uchuva (*Physalis peruviana* L.) | |
| Garlic (*Allium sativum*) | |
| Oats (*Avena sativa*) | |
| Wheat (*Triticum aestivum*) | |
| Barley (*Hordeum vulgare*) | |
| Corn (*Zea mays*) | |
| Lettuce (*Lactuca sativa*) | |
| Carrots (*Daucus carota*) | |
| Bokchoy (*Brassica rapa* var. chinensis) | |
| Tomato (*Solanum lycopersicum*) | |
| | |
| Different herbs: | |
| Mint (*Mentha*) | |
| Spearmint (*Mentha spicata*) | |
| Coriander (*Coriandrum sativum*) | |

*Source*: Arango (2010) and personal interviews.

The changes observed are not confined to crops alone. Technologies and agricultural practices have changed tremendously along with the transformation of the landscape. In the past, people used oxen and a wooden plow to prepare the land, a hoe was used to weed, make ridges and cover holes; while cow dung was used as fertilizer. In the past, farmers cultivated in specific months (for example for potato the first planting was done in January or February and the second planting was done in June or July) but now, the farmers explained that land preparation is done at any time and at a faster rate because a tractor is used instead of manual labor. The use of pesticide and fertilizer is not just common but “a must” to ensure a good harvest. Only farmers who can afford these inputs are able to continue farming. A frustrated male farmer explained that:

> It was much better before, that time was better. There was food, food that was healthy and safe, we did not put anything on the crops. Now, the soil is covered with plastic because of strawberry. It’s all gone and that time [referring to the past], I think will not come back anymore. (Personal

> interview, 56 year old original male settler, October 11, 2011, translated by the author from Spanish original)

This dissatisfaction is very common for many settlers because, nowadays, huge areas planted with commercial crops are owned by big absentee landowners who are not from the municipality. Grau & Aide (2008), among other authors, argued that modern agriculture that could be considered efficient is not actually helping smallholder producers especially those cultivating on marginal lands because they cannot compete with large-scale agriculturalists. Consequently, farmers are sometimes forced to migrate to urban areas, affecting the demography of the rural communities.

If a person were to walk around the rural villages of Chocontá, that person would notice that the population seems elderly. There are very few children playing around and most are of non-working age. The elders I interviewed explained that the majority of the youth has migrated to the city to look for jobs. Some of the reasons mentioned include the influence of peers who are now working in Bogotá and because they do not find farming as productive, profitable and appealing as shown by this narration of an older woman:

> (…) The youth today believe that the countryside is a shame, that to be a peasant is the worst… This is the problem of this country, the youth, all they want is to go to Bogotá. It gives one a feeling of sorrow, if no one gives value [to the countryside] then what can we do? (Personal interview, October 10, 2011, translated by the author from Spanish original)

According to individuals I interviewed that belong to older generation, for the youth, to be modern is to be part of the city. As a result, erosion and maybe disappearance of knowledge related to farming and livestock production is now being experienced in this community. One older farmer emphasized that many of the younger generation do not have the knowledge about farming and are not interested to learn about it anymore. The sense of being part of nature or of being attached to activities related to the land that I sensed from Doña Josefa is definitely not present with the younger generation.

I must emphasize, however, that this kind of relationship that exists between the youth and the rural area is far more complex than just “wanting to become part of

the modern world". In his research among the British rural youth, Leyshon (2008) explained that to understand rural youth, one must realize that there are many factors that can affect their identity and their relationship in a place. These factors include experiences that they have accumulated over the years and their social interactions with other individuals that could happen "with and within the place" (Valentine & Skelton, 2007 as cited in Leyshon, 2008, p. 2). The development of identity through experiences and interactions with other people could in fact be very strong if it is coming from home. For example, in one of my interviews with a young migrant couple, I asked what their dream is for their children. Their immediate reply was for the children to finish their education, so that they will not suffer what they [the parents] have suffered in their younger years. The wife said "it is hard to wake up every day at 4 o'clock in the morning to milk the cows. As much as possible I don't want them [children] to experience this kind of hardship. We want them to find better jobs in the city". It is apparent from this statement that the parents perceive and associate rural areas and farming with hardships and difficult life. It is not unreasonable to think that the younger generation sees the reality of rural life from the same standpoint.[11] When I asked the son of this couple if he wants to follow the footsteps of his parents, his reply was "no! I want to work in the city. I want to do mechanics. Here [Chocontá], there is no opportunity to do this kind of work".

In Chocontá, the change in land use has brought a new system of production and new ways of life for the people. The homogenizing effect of commercial production not only changed the natural environment of this area, but also modified the lifescape including the knowledge and practices about farming. The capitalist production system has restricted farmer's options in terms of varieties to cultivate and the kinds of technologies used, eroding the knowledge about crops and their cultivation. The valorization of the older generation of the importance of land and that feeling of being part of nature and community is slowly disappearing among the younger generation because of the association of rural life and peasantry to underdevelopment and lack of modernization.

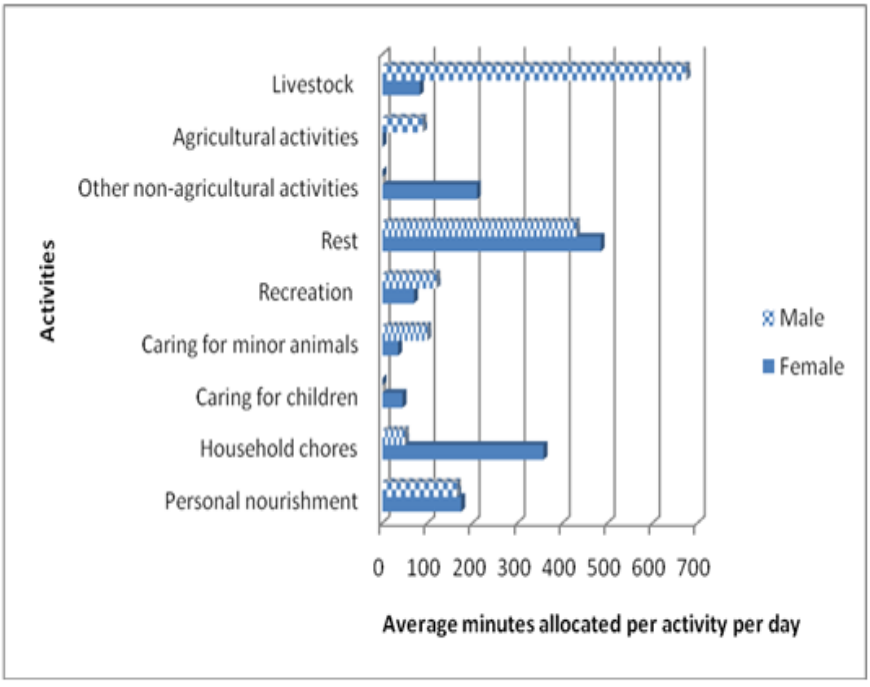
**Past and present: gender roles**

Daily life in rural Chocontá is very similar to many rural regions in developing countries. Both male and female adult members (usually the parents) of the households that have milking cows wake up at 5:00 in the morning to milk the cows. After this activity, the female member goes back to the house to prepare

breakfast and performs other household tasks while the male member tends the farm, which entails transferring the animals to a different paddock and/or going to the potato fields. For households that do not have cows to milk, the members wake up a little later, but perform exactly the same chores: the men go to the farm, while the women take care of the household obligations.

To better understand the roles that the adult members perform in the households, I asked the parents (if both were present) to recall the activities that they carry out in a day from the time that they wake up till they go to bed[12]. I particularly focused on the use of time because it is one resource that is universally available and not subject to direct competition, but can be limited based on the "individual's access to resources and intervention of social structures and cultural codes" (Nazarea-Sandoval, 1995, p. 143).

As shown in Figure 2, both men and women perform various tasks inside and outside the households. However, it is apparent that the activities being performed by both members are still associated with traditional sexual division of labor where women are in charge of reproductive activities and daily maintenance (e.g. child rearing, household chores) while men are responsible for productive activities such as farming and livestock production. In Figure 2, however, it is worth to note the participation of women in livestock production and the non-participation of men in non-agricultural activities.




*Source*: author's elaboration.

**Figure 2.** Time allocation per activity per day by sex.

Women's participation in livestock production is very small compared to men's, and it is concentrated on milking cows and processing of cheese. Among the few couples that I observed in a more in-depth manner, I noted that both parents were responsible for milking the animals. While the men usually were faster in extracting the milk, both performed similar tasks of tying the cow's feet to keep them in place, cleaning the milking area, and extracting milk, among others. The men carried the gallons of milk to the side of the road for the milk collector's pick-up later in the day, while the women finished cleaning up the materials used in carrying-out the task. One woman farmer explained:

> (...) They [women] help a lot; in cattle farming everybody is equal, If the job is to milk, women also do that, if they have to bring the cows to an area, women have to bring those cows to that area, if they have to take them to other village, women have to do that as well, there is no difference at all, nothing at all. (Personal communication, 44 year old woman, 25 of June, 2011, translated by the author from Spanish original)

This result is very different from what I observed in my research in El Petén, Guatemala, where women played a minimum role in managing large animals such as cows. In this area, the only task that women performed in cattle production was cheese processing (Piniero, 2011). As was the case with the farmers in Chocontá, the farmers in El Petén, Guatemala, were also small-scale producers who engaged in milk production, although there were farmers who were raising cattle for double purposes (milk and meat). Carmen Diana Deere and Magdalena León (1981) highlight that although the reproductive role tends to be homogenous in many cultures and societies, the role and participation of women in productive activities may vary a lot depending on the system and relation of production, class position, and material conditions, just to name a few. For these two cases (El Petén and Chocontá), the reason for the different levels of women's participation in animal production could be associated with the material conditions or economic situations that the participating families have (or do not have).

In my interviews, the respondents revealed that nowadays both women and men are working on the farms and hired as laborers by big farm owners, a situation that was not observed in the past. There is still differentiation in terms of activities undertaken by men and women (e.g. land preparation is carried out by men alone, while harvesting and weeding are done by both male and female members), but women are no longer confined in the house and are now considered as part of the paid labor pool. According to one farmer, during the hacienda era, both men and women were also hired in the hacienda, but women's work was to cook for the workers and to maintain the hacienda house (thus, they were still limited to domestic work), while men worked on the farm. There were cases during those times when women were allowed to work on the farm, but usually doing "light" chores as explained by this woman:

> (…) My dad and my mom assigned the girls to a "softer" job, say to help in the house to cook for the workers. When it's time to cut wheat, they assigned them [girls] to tie the bunch, it's a job that was not so... well actually, it was hard also, but not for a woman, for a woman it was neither easy nor too difficult, but they [women] were mostly left with that kind of chore. As they say, give them an easier job, but it was not that easy either. As for the men, they cut the wheat, harvested potatoes, cut corn cane, harvested the garlic, and were responsible for fixing things in the farm. Well

> that was a long process too. (Personal communication, 66 year old woman, 25 of June, 201, translated by the author from Spanish original)

Now, women are also employed by big landowners to perform tasks that in the past were only undertaken by men. In fact, some big producers prefer to hire women in cow milking, because women tend to be more careful in extracting milk, making sure that the milk quality is safeguarded.

In my view, this transformation of gender roles has more to do with the economic hardship that many families of Chocontá are confronted with (as explained by Deere & León, 1981). Households with land that was no longer productive or who had been forced to sell their land, had to look for other livelihood strategies to sustain the family. Therefore, working as farm laborers or "cow milkers" is one of the options that both husband and wife can engage in. It does not matter who does what activity on the farm or in the household, what's more important is how a household member helps to generate income. A 34 year-old woman remembered:

> Our economic situation has always been hard, that's why we have lived in several places. One time we lived in ***Chingacío***, we lived in a little room and my husband worked in tanneries, while I helped the ***señora*** of the farm with the milking, but we left that place because we were not paid, they still owe my husband 10,000 or 20,000.
>
> Then we both got jobs on a farm and we lived there for nine months milking 60 cows manually. We [husband and wife] started milking the cows before 3:00 in the morning and in attending the flowers that were [also cultivated] on the farm; but the farm manager kept our money and he did not give us our full salary but gave it little by little; I got tired of so many humiliations, of the slavery so we got out of there... (Personal communication, 34 year old woman, 29 of September, 2011, translated by the author from Spanish original)

In El Petén, Guatemala, while the condition of the families that were part of my research was almost the same (small-scale producers), farmers in El Petén were concentrating mainly on livestock production as the main source of income. They were not engaging in monocrop cultivation (i.e. corn which is the main crop being produced by the community). In contrast, farmers in Chocontá are continuously

facing tough competitions with big landowners (both crop cultivators and livestock producers) that have enough financial capital for commercial production. The small-scale crop producers who have very limited capital rely heavily on bank loans in trying to compete with the former, resulting in “bank loan-pay loan-bank loan” cycle. As mentioned earlier, many families started engaging in cattle-raising when they could no longer continue with crop cultivation. Hence, livestock production became a strategy they used for survival.

However, I must emphasize that in terms of household chores, they remains the sole responsibility of women. This role holds through with non-agricultural activities that include keeping a small store where women are the ones in charge, while their husbands work on the farm. For women who engage in store-keeping, they usually do this activity after they help their husbands in milking the cows.

The involvement of women in agriculture has also affected the way by which women’s participation in the decision-making is considered in the households. According to the men and women I interviewed, now both husband and wife participate actively in the decision-making process related to the farm. The husband consults his wife about what’s happening in the farm and what kinds of investments or expenses will be made. A 38 year old woman explained:

> Another change is the relationship, now there is less machismo; before the man was the one in charge of the house, now, at least in my case, the two [husband and wife] decide on what to do and how things should change… (Personal communication, 38 year old woman, 29 of September, 2011)

This I also observed in my visits to the site. In most of my interviews, both husband and wife participated actively in my research activities (e.g. interviews, mapping). Sometimes husbands would even ask their wives for some information about the farm. Women’s participation in the decision-making process at home was not observed in the past. One woman commented that:

> (…) Before, there was a little of, how should I say it, it is like ***machismo***. It was the husband who managed the household so if the woman wanted to sell a calf, she could not do it, not until the husband or the brother in law said so. Those times before, very***machista***. For a change, now it is like the opposite, there are women who give orders in the house. In fact, there are

> women who work harder than men, women who are hardworking. There are husbands who are very lazy, hence their wives have to work for the family. There are also those [men] who are drunkards. (Personal communication, 46 year old woman, 29 of September, 2011, translated by the author from Spanish original)

This transformation of gender roles can be attributed to many reasons but for this particular case, I associate it more with what Caroline Moser (1989) describes as a response to practical gender needs, that women formulated from their concrete conditions and experience, done not through external interventions, but within a specific context. Sometimes, women do not aim for emancipation or gender equality nor challenge the system of subordination, but they simply want to make sure that their family's basic human needs are satisfied. In fact, one woman emphasized that while women's liberation is good in some aspects, it also resulted in the deterioration of family:

> (…) this [***machismo***] still exists because they [men] are very closed minded, I say; the men do not let their women progress, because there are women who do that [try to improve their lives] and they are progressing at home, they improve the living conditions, improve many things; that's when men who are ***machista*** put them in a box, they [men] don't want to listen to any of this, and they do not let something to progress.

There are also problems that I see so frequently, the problem of women's liberation, let's say that in the neighborhood there are some good men, a woman who does not like [her husband] would mess with the neighbor and that's where conflicts arise between neighbors. (Personal communication, 44 year old woman, 28 of September, 2011, translated by the author from Spanish original)

**Dilemma and the new rurality of Chocontá: some concluding remarks**

The changes taking place in Chocontá for the past 60 years have been very dynamic. Some transformations happened in big leaps, while some events became part of history in slow motion. Today, the rate of change seems to be slowing down. The vast mountainous land is covered with pasture with a few cows roaming around, with some isolated spots planted with pine and eucalyptus trees and a few

patches covered with potato, beans and strawberry. In its flatter parts, more strawberry plantations and pasture areas are the most noticeable land use.

When asked about what the future will be for this community, many of the informants were uncertain. Some thought that the landscape of the rural area is still in a process of change. Now that many farms have been sold to outsiders, some areas are being converted to a “weekend get-away” farm, where city dwellers when they want to be free from the noisy and busy life of the city, go to so that they can “engage” in rural activities. Nowadays one can observe some newly constructed houses that are usually empty on weekdays and are lived in at weekends. Yet one can also note the presence of some very old and abandoned houses, because the owners have died or have moved to the city.

These tendencies are causing some settlers to worry about the future of rural Chocontá. While the urban area is growing, the lifescape in the rural area is dying. A 46 year old woman explained why this is happening:

> [It is because] of the situation in agriculture, and the government does not look after the [welfare of] farmers, they do not give people a chance to work. What one has or what one cultivates is hunger, what will happen to farmers with two or three cows while the price of the machine that they want us to use costs around 10 million pesos? We then have to sell all our cows? And even with that, it is not enough. That machine that they [the government] want us to have is for milking, to improve the quality of milk, but with this, one has to sell all one’s cows, what is there to milk then? For this reason, many people left this place.

The change in land use pattern that is still taking place in Chocontá brought about by industrialization of agriculture is impacting many rural families. This change not only affects the physical environment, but also influences the way rural folk perceive their future. According to Arefi (1999), transformation of perceptions has been “largely influenced by modernity and globalization when every element of a place has led to its commodification and devaluation” (p. 180). Globalization and modernization put the credibility of a place into question; in other words, is a place simply becoming a geographical location for production or does it still hold an important role (both in its social and physical construct) in this new era? I am in no doubt that the existence of the rural landscape (characterized by the dominance of agricultural activities, vast parcels of land cultivated with some crops - Ashley &

Maxwell, 2001) in Chocontá will not disappear any time soon. However, the image and the kind of attachments that people have with the land will erode as big industrial activities continue to encroach on rural areas. As small-scale farmers try to confront the difficulty of being food producers and as they try to integrate into the global economy, they become more pauperized; they become more alienated to their means of subsistence (Killick, 2001; Kydd & Dorward, 2001).

It does not help either that the time will come when the older generation of settlers of Chocontá that still has a symbolic relationship with the land that gives people its cultural, emotional and affective meanings will pass away (Sampson & Goodrich, 2009). When this happens, the knowledge and practices of farming that they generated over many years of experimentation will disappear, because the majority of the younger generation is choosing to leave the rural areas. Peer pressure, the hardship of farming, lack of support from the government and the bad connotation about rural life and peasantry are just a few of the reasons that young people choose the path of out-migration.

On the other hand, the transformation has also brought some positive results with regards to gender relations and family dynamics. While in the past, women did not have the opportunity to participate actively on the farm (and even worse, their role in agriculture was not even recognized), now women are participating not only in productive activities where they are economically remunerated, but also in the decision-making process related to agriculture.

Globalization and modernization of agriculture are processes that are now part of the modern world. Whether a country in general or a community in particular likes it or not, people will have to confront the changes associated with these processes. In reality, the different forces (economic, political and technological) will continue to threaten the livelihoods and the socio-cultural and natural lives of rural people, hence there is a need to rethink of how policies related to agriculture are addressing the small-scale farmers, the peasants who continue to produce not only for themselves, but for the rest of humanity.

**ACKNOWLEDGEMENTS**

The author wishes to acknowledge the hard work done by her two research assistants María Fernanda Pérez and Ingrith Camelo in the data collection. She also would like to extend her sincerest gratitude to the farmers and their families of Chocontá for their willingness to participate in the research.

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**POTENTIAL CONFLICT OF INTEREST**

The author does not have conflict of interest to declare.

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**FINANCIAL SOURCES**

This research would not be materialized without the financial assistance given by University of los Andes as part of the “Fondo de Apoyo a Profesores Asistentes” given to the assistant professors.

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2. Lifescape pertains to the human dimension of the landscape including its social, cultural, economic and political components.

3. This is a form of an in-depth interview where the informants are asked to narrate the story of their lives associated with livelihood strategies from the time they can remember to the present time.

4. A qualitative method which requires informants to write down activities that they did from the time they wake up till the time they go to bed.

5. Much of the information in this section is taken from Plan de Desarrollo, Experiencia con Compromiso Social, 2008-2011 (Concejo Municipal de Chocontá, 2008).

6. Andean ***páramo*** is defined as a unique mountain grassland ecosystem with distinct and very diverse fauna and flora located between the upper forest line (about 3000 m) and the permanent snow line (about 5000 m) (Robineau, Châtelet, Soulard, Michel-Dounias & Posner, 2010, p. 212).

7. Any of several xerophytic plants of the genus ***Espeletia*** (family Compositae) of the higher Andes (esp. ***E. grandiflora***).

8. Absentee landowners are individuals who own properties, i.e. land, but do not live within the property.

9. The plastic can only be used for one year after which it has to be replaced.

10. Not her real name.

11. During the time of the research, the three children of this couple were attending school; one in Bogotá while the other two at the main town of Chocontá.

12. While this method has limitations including omission of some activities done simultaneously particularly by women and not getting the “typical” activities done on everyday basis, it is still a good approximation of time use and management by family members that demonstrate sexual division of labor.

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**Para citar este artículo**: Piniero, M. C. (2016). Globalization and industrialization of agriculture: impacts on rural Chocontá, Colombia. ***Revista Luna Azul***, 43, 468-498. Recuperado de http://200.21.104.25/lunazul/index.php?option=com_content&view=article&id=209

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