



TECHNICAL JUSTIFICATION

Technical Justification to Determine the Extension of 75 Hectares as a Definition for Small FFC Producers

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Abbreviations

CPO	Crude palm oil
ANCUPA	Spanish initials for Asociación Nacional de Cultivadores en Palma Aceitera – (National Association of Oil Palm Cultivators)
EPA	Environmental Protection Agency of the United States of America
IDB	Inter-American Development Bank
IECC	Industrial Environmental Categorization Catalog
EIC	Environmental Industrial Categorization
IISC	International Industrial Single Classifier
ETIN Ec	Spanish Initials for the National Interpretation Technical Team Ecuador
NI	National Interpretation
MEE	Ministry of the Environment of Ecuador
MAGAP	Spanish initials for the Ministry of Agriculture, Livestock, Aquaculture and Fisheries
RSPO	Roundtable on Sustainable Palm Oil
ER	Environmental Registry
FFC	Fresh Fruit Clusters
IRSE	Internal Revenue Service of Ecuador

1. Background

The history of oil palm in Ecuador goes back to 1948 when brothers Roscoe and Leal Scott, from the city of Washington, United States of America, farmers by vocation, settled at Km.37 on the Santo Domingo - La Concordia road, thanks to former President Galo Plaza Lazo's initiative to promote agriculture in the country.

The first 50 hectares of plantation began in 1949 following the visit of Lee Hines, who provided six packages of "seeds" from Honduras. In 1958 the first oil industrializing company was built; at the end of the same year, the project for oil palm sowing was implemented through the Inter-American Development Bank (IDB) and the Ministry of Agriculture, Livestock, Aquaculture and Fisheries (MAGAP for its Spanish initials)

The National Oil Palm Cultivator Association (ANCUPA for its Spanish initials) was founded in 1970 with the aim of bringing oil palm growers together and representing them. ANCUPA protects the interests of Ecuadorian palm growers, who have made this activity a source of work that directly and indirectly benefits close to 150,000 Ecuadorians. It has contributed to progress and development in areas such as: Santo Domingo, Quinindé, La Concordia, Quevedo, El Oriente, San Lorenzo, Guayas and El Oro.

Given the definition of small producers from the Sustainable Palm Oil Roundtable (RSPO for its Spanish initials) included in (RSPO, 2015) the Certification Guide's Glossary of Terms: "*Small property owners: Growers who grow oil palm, sometimes at the same time as they produce other subsistence crops, and whose family provides most of the work. The farm provides the main source of income and the area planted with oil palm is usually less than 50 ha.*"

And that generic definitions can be used as a guide, in the absence of a National Interpretation (NI). These generic definitions of the above terms can be defined during NI processes (including local interpretation and NIs for small producer countries).

Compared with other Latin American countries, oil palm has the lowest productivity in Ecuador in the different links of the production chain. The current system maintains link dispersion and inequality in resource capture. Micro oil palm producers (less than 20 ha) keep their operation under structural loss schemes and there are critical factors that affect the productivity of the set of actors involved.

Considering that in Ecuador there is a methodology established for Environmental Categorization prepared by the Pollution Prevention Division of the Ministry of the Environment of Ecuador (MEE); which provides clear and precise information on specific industrial sectors that should obtain their environmental regularization according to the degree of environmental severity (MEE, 2012).

The MEE took into account the International Industrial Single Classifier (IISC) established by the Internal Revenue Service of Ecuador (IRSE), from which a debugging exercise was carried out and the methodology of ENVIRONMENTAL INDUSTRIAL CATEGORIZATION (EIC) created in order to obtain an INDUSTRIAL ENVIRONMENTAL CATEGORY CATALOG (IECC) with their respective manuals. On this basis the MEE issued Ministerial Agreement 068 with Official Registration 033 of July 31, 2014 and subsequently Ministerial Agreement No. 006, dated April 29, 2014 and supplemented the specific regulation with Ministerial Agreement No. 061, published On 04 May 2015.

With these elements, the National Interpretation Technical Team of Ecuador (ETIN-Ec) validated the document identified as "**National Interpretation of the Principles and Criteria for the Sustainable Production of Palm Oil in the Republic of Ecuador**" in a consensual way and based on the fulfillment of the RSPO requirements.

2. Introduction

As part of the NI process the Technical Team developed the interpretation and adaptation to the local context of the "*Requirements and Guide of the Management System of the RSPO for the Certification of the Group of the Production of Fresh Fruit Clusters - FFC*". This document incorporates the definitions and categories for small producers applicable to the RSPO standards. (RSPO, 2015)

In this sense and to align that established in the local context and national laws, the Technical Team proposed a technical modification to the generic definition proposed by the RSPO concerning small producers, thus the proposal:

"Small farmers are farmers who grow oil palm, sometimes alongside other subsistence crops, where the family provides most of the work. The farm provides the main source of income and the area planted with oil palm is usually under 75 hectares in size."

The main change proposed by the definition is the extension of the area planted with oil palm from 50 hectares to 75 hectares for small producers, a modification that is justified on the basis of the EIC methodology and incorporates the analysis of economic, social and environmental criteria in the local context.

3. Objective

To justify the proposal raised in the NI on the extension of the area planted with oil palm from 50 hectares to 75 hectares in the definition of "Small Producers" contained in "*Requirements and Guide to the RSPO Management System for Group Certification for the Production of Fresh Fruit Clusters-FFC*".

4. Methodology Used

The EIC methodology is based on the technical - scientific - environmental analyzes of the United States Environmental Protection Agency (EPA), Environmental Impact Assessment Manual developed by the World Bank, and manuals - studies of international consulting firms.

The key elements chosen for inclusion are: general (economic) industry information, description of industrial processes, the activities to be undertaken (input), and resulting pollution (output), pollution prevention opportunities and the applicable Ecuadorian legal framework.

The EPA describes clear and accurate information on each topic mentioned for any industry, which alone could be the subject of an extensive volume. However, to produce a manageable document, the Environmental Categorization Manual of the Ministry of Environment of Ecuador focuses on providing summary information; the key elements chosen for inclusion are: general (economic)

industry information, description of industrial processes, input activities, sector stratification and resulting pollution, opportunities for Pollution and the applicable Ecuadorian legal framework.

5. Analysis

a. Economic information of the general industry and small producers

The Ecuadorian palm sector is mostly made up of palm growers (91%) who own farms of less than 75 hectares of planted area, according to the palm grower census undertaken by MAGAP with the support of ANCUPA in 2010. In the System there are two relevant dynamics to consider in relation to small producers: a) Social: corresponds to 56% of micro producers of 20 Ha or less, who face a situation of structural loss¹, exploit 13% of the surface and contribute 10% of national production b) Productive: 39% of small producers over 20 Ha and less than 75 Ha, own 45% of the area and contribute 44% of the country's production volume (CARANA, 2016). Notwithstanding these differences, the MEE, together with FFC production interest groups, have agreed that small palm growers (up to 75 hectares) in the Ecuadorian context have similar characteristics due to the following factors:

- The main source of labor at the plantation is provided by family members.
- The totality and / or majority of the revenue source is generated by the production and commercialization of FFC.
- The implementation of good agricultural practices is mostly dependent on the support they may receive from technicians who come from the extraction companies or other institutions.
- Mechanization does not exist and / or is very scarce for the development of the crop's daily activities.
- The implementation of good environmental practices is very scarce, due to the lack of knowledge.
- Small producers are highly dependent on price fluctuation and definition.

The factors mentioned above are reflected in the following aspects that are similar in small producers at the national level:

- The average FFC yield is low and in turn is similar in this range.
- The possible environmental and social impacts that can be generated since the management of oil palm crops is similar.

i. Productivity

Ecuador is the Latin American country with the lowest productivity per ton of fruit per hectare due to several factors, including: poor agricultural practices, low fertilization, low luminosity, poor quality of cultivated land, etc. (See Chart 1 and Figure 1). This translates into the need for a greater

¹ Structural loss: refers to the net margin of productive activity not allowing a family to meet its basic needs in a year.

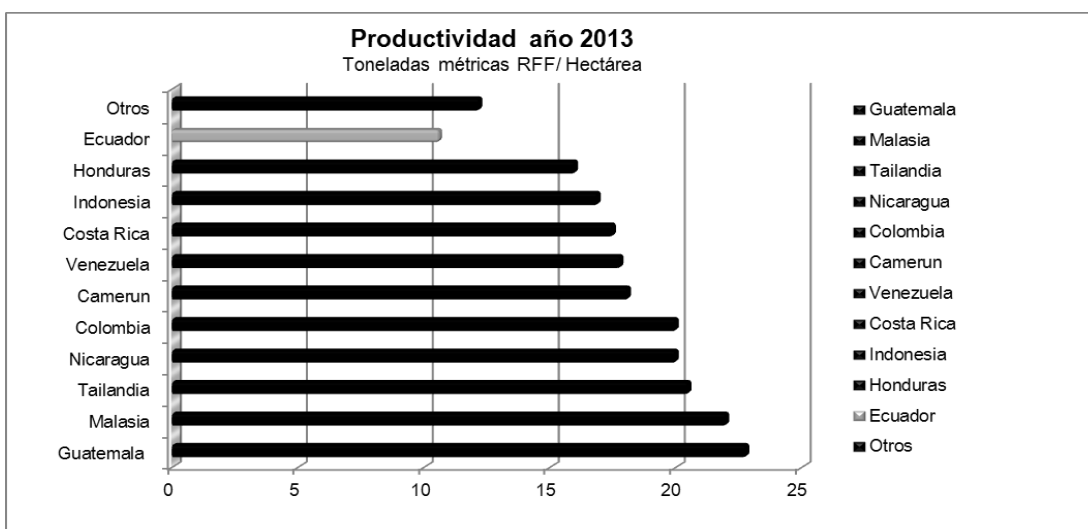
number of hectares cultivated to achieve similar subsistence incomes compared to palm producers in other countries, who manage to obtain their subsistence income with fewer hectares.

Chart 1: Multi-temporal performance (2000-2013) Several countries

Rendimiento Tonelada métrica RFF/ Hectárea														
Fruta de Palma	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Guatemala	15.2	17.4	16.7	16.8	16.2	20	17.8	18.3	16.8	16.9	17.1	21.4	23.2	22.8
Malasia	18.4	17.8	17.6	20.5	20.5	21.1	21.6	21.1	22.7	21.9	20.6	21.9	22	22
Tailandia	14.5	16.9	15.2	17	16.8	15.4	17.7	15	20.1	16	14.5	18.9	19.1	20.5
Nicaragua	26.5	26.5	26.5	24.3	22.4	22.9	23.5	20	21.1	24.4	21.7	21.7	20	20
Colombia	18.3	18.8	17.9	17.2	19.7	19.3	19.4	19.4	19.4	19.4	18.8	20.1	20.3	20
Camerun	19.6	20.9	20.5	21.1	21.1	20.7	20.8	21.3	19.9	15.7	19.6	19.7	20.3	18.1
Venezuela	15.1	13.9	12.7	11.7	13.5	11.6	12.2	12.3	17.8	15.5	18.6	18.3	17.6	17.8
Costa Rica	15.3	16.7	13.4	13.4	14.4	15.6	18	17	16.4	16.3	17.3	17.5	17.5	17.5
Indonesia	18.1	18.6	16.8	17.3	18.2	20.1	19.5	17.1	17.1	16.8	16.9	17	17	16.9
Honduras	18.2	13.1	14.2	15.2	13.8	13	17.8	16.6	15.4	15.8	16.8	17	17	16
Ecuador	11.8	11.4	11.3	10.4	15	11.1	11.7	12.5	14.7	11.4	14.7	10.3	13.3	10.6
Otros	14.4	13.9	13.6	13.2	13.5	13	13.2	12.9	12.5	12.4	12.3	12.3	12.5	12.2

Source: FAOSTAT CROPS, 2016

Figure 1: Comparative Productivity (year 2013)



Source: FAOSTAT CROPS, 2016

The previous situation is evident compared to the volume of hectares planted in Ecuador- 280,000 hectares with an oil production of 531,000 tons, which corresponds to a productivity index per hectare of approximately 2 tons crude oil palm (CPO) / hectare, well below its Latin American peers and even Southeast Asia (see Chart 2).

Chart 2: Productivity Indices from Several countries

Rendimientos en toneladas por hectárea					
País	2001	2004	2009	2014	2014/2001
Guatemala	3,3	3,5	3,6	6,9	106%
Panamá	3,0	2,6	2,8	4,1	40%
Honduras	3,9	2,8	3,0	3,7	-7%
Colombia	4,0	4,0	3,4	3,4	-14%
Nicaragua	4,0	2,8	3,7	3,4	-15%
República Dominicana	3,3	3,5	3,5	2,9	-10%
Costa Rica	3,8	3,7	3,9	2,9	-24%
Brasil	2,6	2,6	2,9	2,8	9%
Perú	3,7	2,8	3,6	2,6	-29%
Ecuador	2,2	2,0	2,0	2,1	-6%
México	2,8	2,9	2,5	1,8	-36%
Venezuela	1,7	2,2	2,6	1,1	-35%
Centroamérica*	3,5	3,1	3,3	3,7	7%
Suramérica*	2,8	2,7	2,9	2,4	-15%
Total*	3,2	2,9	3,1	3,2	-1%

* Muestra de países seleccionados
Fuente: Oil World Annual Statistics

Source: FAOSTAT CROPS, 2016

ii. Income for subsistence

As a direct consequence of low productivity at the harvest stage, small producers in the different oil palm growing regions show marked differences in income relative to their peers in Latin America and other world producers. Thus, a small producer in Ecuador with less than 75 ha, obtains a profit margin of 75% (approx.) with respect to other FFC producers around the world, assuming that the costs for agricultural work are equal in each scenario and the average price of fruit is USD 150 (see Chart 3).

Chart 3: Comparative Income - FFC Production

Country	Average productivity (ton)	Income (usd)	Expenses (usd)	Profit (usd)
Malaysia	22	3300	1052.04	2247.96
Colombia	20	3000	1052.04	1947.96
Ecuador	10.6	1590	1052.04	537.96

Source: ANCUA, 2014.

In Ecuador, the productivity level of producers with less than 20 hectares is below the average shown in Table 3 for producers of less than 75 hectares, which is why it does not cover basic household expenses (US \$706 according to INEC).

b. Description of industrial processes related to small producers, list of activities undertaken (input)

With the processes related to FFC production presented and analyzed in detail, and with the purpose of facilitating the environmental regularization of productive activity, the MEE in knowledge of the reality of the Ecuadorian oil palm sector characterized by a majority of small palm growers, type of family agriculture, and low environmental impact and environmental risk in the pursuit of its activity, categorized palm farmers in three levels for environmental regularization, Chart 4.

CHART 4: Category of Oil Palm Crops by Size of Establishment

NECC Code	DESCRIPTION OF ACTIVITIES	CATEGORY (I, II, III, IV)
11.1.1.1	Cultivation of oil palm	
11.1.1.1.1	Cultivation of oil palm greater than 150 hectares	IV
11.1.1.1.2	Cultivation of oil palm greater than 75 hectares and less than or equal to 150 hectares	III
11.1.1.1.3	Cultivation of oil palm less than or equal to 75 hectares	II

Source: AM 006, Annex I: NATIONAL ENVIRONMENTAL CATEGORIZATION CATALOG (NECC)

The categorization published in Ministerial Agreement No. 006 (AM 006) was ratified in Ministerial Agreement No. 061 (AM 061), published on May 4, 2015 (current to date), which establishes the obligation to submit an "Environmental registry²" as a requirement for the regularization of the oil palm crop.

c. Resultant pollution (output) of small producers

According to the MEE, oil palm plantations less than or equal to 75 hectares are considered to be of **low environmental impact**, as stated in AM 006 - ANNEX II: NATIONAL ENVIRONMENTAL CATEGORIZATION MANUALS, MANUAL OF PROCEDURES FOR CATEGORIES I, II, III, IV; 1. DEFINITIONS, which establishes the following as Category II: this category includes projects, works or activities whose negative environmental impacts, risks and levels of pollution generated in the environment are considered to be low impact.

d. Pollution Prevention Opportunities

The MEE, through AM 061, establishes that productive activities must update their information digitally through the Single Environmental Information System (SUIA for its Spanish initials), according to the technical need of each sector. In order to obtain the Environmental Registry through the SUIA, the promoter must fill in the registration form assigned by the MEE, which must comply with the following procedure: 1. Make payments for administrative services in the places

² **Environmental Registry.**- is the mandatory environmental permit granted by the Competent Environmental Authority, which certifies that the promoter has complied with the regularization process for the project, work or activity.

indicated by the Competent Environmental Authority. 2. Enter the information required by the Competent Environmental Authority in the automatic registration made for this purpose and available online. Once the environmental registry has been obtained, it will be published by the Competent Environmental Authority on the Single Environmental Information System website. The control subject must comply with the obligations arising from the environmental permit granted.

On the Environmental Compliance Reports.- Activities regulated by an Environmental Registry shall be controlled by means of an Environmental Compliance Report, inspections, monitoring and others as established by the Competent Environmental Authority. These reports must evaluate compliance with environmental regulations, the environmental management plan, conditions established in the respective environmental permit and others that the environmental authority establishes. Should it be the case, the environmental report will contain an Action Plan that contemplates corrective and / or rehabilitation measures. The information provided by the Control Subject may be verified in the field and if it is falsified, the corresponding legal actions will be initiated.

Periodicity and review.- Notwithstanding that the Competent Environmental Authority may order that an Environmental Compliance Report be submitted at any time depending on the activity's level of impact and environmental risk, the first environmental compliance report must be submitted one year after environmental registration was granted; and thereafter every two (2) years as of the submission date of the first compliance report.

Finally, AM 061 in the Seventh Transitory Provision establishes that operational activities that are not regulated by environmental regulations must begin their regularization process, as established in this legal instrument; for Environmental Registration within six (6) months, as of its publication in the Official Register, notwithstanding the start of the administrative procedure in case of non-compliance with the technical regulations.

e. [Applicable Ecuadorian Legal Framework.](#)

According to (ETIN, 2016) in the framework of the review, analysis and adaptation of the Principles and Criteria and the Certification Guide for Small Producers in the National Context; this work carried out seven meetings of the technical subgroups (environmental, social and productive), seven board meetings, one public consultation and five expanded ETIN meetings, which by consensus validated and accepted the document identified as "**National Interpretation of Principles and Criteria For the Sustainable Production of Palm Oil in the Republic of Ecuador**". This document analyzes and incorporates all the elements that refer to the National Interpretation of Generic Principles and Criteria and includes the definition of "*Small Producers: farmers who grow oil palm, sometimes along with other subsistence crops, where the family provides most of the work, the farm provides the main source of income, and the area planted with oil palm is usually under 75 hectares in size and these may be associated small producers or small independent producers and community producers*".

The NI of the Principles and Criteria in "**Annex 2: National Legal Regulations Applicable to the Production of Palm Oil**", undertakes a synthesis of national laws applicable to the production of Palm Oil in Ecuador. The chart shows the legal Identification, linked to the indicators and guides, criteria and principles.

6. Conclusion

In line with the proposed methodology and having analyzed FFC production economic information, the processes, productive activities involved, the level of environmental impact, the pollution prevention standards established by the MEE and the applicable Ecuadorian legal framework, is concluded that:

For Ecuador in the Small Producer NI defines that: Farmers who grow oil palm, sometimes along with other subsistence crops, where the family provides most of the work, the farm provides the main source of income and the area cultivated with oil palm is usually under 75 hectares in size and these may be associated small producers or small independent producers and community producers.

7. Bibliography

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8. Annexes

- Annex 1: Ministerial Agreement No. 006, dated April 29, 2014
Annex 2: Ministerial Agreement No. 061, published on May 4, 2015