

# Methodology

GMAP provides an early and high-level country and commodity-level evaluation of environmental and social risks associated with agro—commodity primary production. The criteria and indicators align with the IFC 2012 Performance Standards on Environmental and Social Sustainability, in particular the supply chain-related requirements of Performance Standard 2 and Performance Standard 6.

PS2 Performance Standard 2 Labor and Working Conditions PS6

Performance Standard 6 Biodiversity Conservation and Sustainable Natural Resource Management

### **Risk Matrix**

The methodology uses a traditional risk matrix to quantify production risk. A risk score for each indicator is derived from a combination of two factors



Probability of an occurrence



### Score Summary



| Use of harmful child labor                                               | 96 |
|--------------------------------------------------------------------------|----|
| Laws related to child labor                                              | 72 |
| Use of forced labor                                                      | 88 |
| Laws related to forced labor                                             | 32 |
| Conditions of Production                                                 | 68 |
| Laws related to the protection of workers from significant safety issues | 52 |

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Biodiversity Conservation and Sustainable Natural Resource Management

| Rate of expansion into natural areas                           | 88 |
|----------------------------------------------------------------|----|
| Impact on protected areas                                      | 52 |
| Presence and impact on high or unique freshwater biodiversity  | 72 |
| Presence and impact on high or unique terrestrial biodiversity | 88 |

### Analysis Data

### 🛠 Labor and Working Conditions



### What is the extent of harmful child labor use in commodity production?

It is estimated that 80% of child labor in Colombia occurs in the informal sector which includes agriculture. Significant incidences of child labor occurred in coca production and because coca is expanding in the race to obtain more for a land-value swap, its relevance to cocoa production is significant. Agriculture is listed as one of the worst forms of child labor and 71.1% of child laborers in rural Colombia work in agriculture, fishing, cattle farming, hunting, and forestry. Almost half of these reported children did not receive payments. Children are reported to have been trafficked specifically for agricultural labor. Cocoa was not specifically listed as a direct means for these purposes.,

- U.S. Department of State. 2016. "Country Reports on Human Rights Practices for 2016". https://www.state.gov/j/drl/rls/hrrpt/humanrightsreport/#section7
- U.S. Deparment of State. "Trafficking in Persons Report," June 2016. https://www.state.gov/documents/organization/258876.pdf.

# *To what extent do the laws of the country protect the rights of children in commodity production?*

Colombia has ratified the Minimum Age Convention, 1973 (No. 138) and the Worst Forms of Child Labor Convention, 1999 (No. 182). The minimum age for employment is 15 years old in Colombia and there are limitations placed on the employment of children under 18 years old, at which time they can take on hazardous work. Hazardous work in agriculture falls under the "worst forms of child labor". Violations of child labor laws can be punishable by a fine that is 5,000 times the minimum monthly wage of the employer or for more serious endangerment, a temporary or permanent closure of the establishment may be imposed. Efforts have been made to monitor and regulate Child Labor but resources and training remain inadequately effective.

#### References

- International Labor Organization. 2015. "Ratifications of ILO Conventions: Ratifications by Convention C184 Safety and Health in Agriculture Convention, 2001 (No. 184)." http://www.ilo.org/dyn/normlex/en/f? p=NORMLEXPUB:11300:0::NO:11300:P11300\_INSTRUMENT\_ID:312329:NO.
- U.S. Department of State. 2016. "Country Reports on Human Rights Practices for 2016". https://www.state.gov/j/drl/rls/hrrpt/humanrightsreport/#section7



### 1.3 FORCED LABOR Use of forced labor

### To what extent is production of the commodity associated with forced labor in the country?

The Global Slavery Index estimates that over 300,000 individuals are living in modern slavery conditions and ranks 18th out of 167 countries that are monitored. Although Cocoa is not explicitly listed as a commodity produced by forced labor, the FARC (Revolutionary Armed forces of Colombia) and ELN (National Libertarian Army) are reported to have used forced labor for agricultural production. Marginalized citizens are at higher risk of forced labor in the agricultural sector and the Colombian government did not effectively enforce the law in all reported cases.,

- Global Slavery Index. 2016. https://www.globalslaveryindex.org/index/
- U.S. Department of Labor. 2016. "List of Goods Produced by Child Labor or Forced Labor." https://www.dol.gov/ilab/reports/child-labor/list-of-goods/
- U.S. Department of State. 2016. "Country Reports on Human Rights Practices for 2016". https://www.state.gov/j/drl/rls/hrrpt/humanrightsreport/#section7

# *To what extent do the laws of the country prevent the exploitation of forced labor in commodity production?*

Colombia has ratified eight out of eight fundamental conventions with the ILO including the Forced Labour Convention, 1930 (No. 29) and the Abolition of Forced Labour Convention, 1957 (No. 111). Law established punishments from 13 to 23 years of imprisonment and additional fines for perpetrators of forced labor. It is suggested that penalties are sufficiently stringent. According to the Trafficking in Persons Report from 2016, Colombian ranks as a Tier 1 country where the government meets the minimum standards of the TVPA (Trafficking in Person's Act).

#### References

- International Labour Organization. 2016. "Ratificaitons for Colombia." http://www.ilo.org/dyn/normlex/en/f? p=NORMLEXPUB:11200:0::NO::P11200\_COUNTRY\_ID:102595
- U.S. Department of State. 2016. "Country Reports on Human Rights Practices for 2016". https://www.state.gov/j/drl/rls/hrrpt/humanrightsreport/#section7
- U.S. Deparment of State. "Trafficking in Persons Report," June 2016. https://www.state.gov/documents/organization/258876.pdf.

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### 1.5 SIGNIFICANT SAFETY ISSUES Conditions of Production

# *To what extent do workers in commodity production face physical and/or chemical occupational health and safety (OHS) hazards?*

Agrochemicals typically used in cocoa production in Colombia are classified by the WHO as "Moderately Hazardous," Beta-cyfluthrin is classified as Ib or "Highly Hazardous." Shade grown Cocoa is considered less hazardous and more sustainable as the use of herbicides and pesticides is not as abundantly needed. Cocoa cultivation though is predominantly carried out by hand and numerous injuries can occur from exposure to the elements of production including but not limited to: cutlasses (or machetes), stumps and thorns, back and waist pain, and insect bites or stings.

- Bateman, Roy. 2015. "Pesticide Use in Cocoa." http://www.dropdata.org/cocoa/Cocoa\_Pesticides\_Manual\_Ed3.pdf
- Bosompem, Martin; Mensah, Emmanuel. 2012. "Occupational Hazards Among Cocoa Farmers in the Birim South District in the Eastern Region of Ghana." ARPN Journal of Agricultural and Biological Science, 7 (12): 1055 – 1061. ISSN 1990-6145

1.6 SIGNIFICANT SAFETY ISSUES

<sup>52</sup> Laws related to the protection of workers from significant safety issues

# To what extent do the laws of the country prevent workers from significant safety issues in the production of the commodity?

Colombia has not ratified the Safety and Health in Agriculture Convention, 2001 (No. 184). As of 2011 Colombia has submitted a National Implementation Plan (NIP) for the banning of Persistent Organic Pollutants (POPs) per the Stockholm Convention. National law does not cover informal sector workers in agriculture however, they are protected from workplace termination if one chooses to remove themselves from a dangerous situation regarding their health or safety. The Ministry of Labor however has little training in occupational health and safety issues which may cause subjectivity in a case by case basis and an underreporting of incidents. It is unclear whether the fines for violations are a sufficient deterrent.

- International Labor Organization. 2015. "Ratifications of ILO Conventions: Ratifications by Convention C184 Safety and Health in Agriculture Convention, 2001 (No. 184)." http://www.ilo.org/dyn/normlex/en/f? p=NORMLEXPUB:11300:0::NO:11300:P11300\_INSTRUMENT\_ID:312329:NO.
- U.S. Department of State. 2016. "Country Reports on Human Rights Practices for 2016". https://www.state.gov/j/drl/rls/hrrpt/humanrightsreport/#section7



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2.1 PROTECTION AND CONSERVATION OF BIODIVERSITY Rate of expansion into natural areas

# To what extent is production/harvest of the commodity expanding, and to what extent is that expansion into undeveloped areas?

Cocoa production area in Colombia has risen dramatically, over 117%, in the decade from 2004 to 2014. Area harvested reached over 160,000 hectares and the country's output was estimated at nearly 48,000 tons, in 2014. Deforestation in Colombia has risen 44% from 2015 to 2016, losing over 178,000 hectares of forest predominantly in the Amazon. While this is mainly driven by coca production (not to be confused with cocoa) and road infrastructure, other large-scale agriculture is also to blame. Reports about a peace accord from the Colombian government intends to eradicate Coca by replacing it with crops like Cocoa, Maize, and Plantains. The idea is to lessen the effect of the drug trade as a staple in the Colombian economy but instead, local farmers are planting more coca in hope that they will get generate more income when payouts for the subsidy occurs. So while cocoa expansion is not directly causing a push in to undeveloped areas, it is indirectly altering landscapes in which it is thought to be grown in the future.

- Food and Agriculture Organization of the United Nations. "FAOSTAT." http://www.fao.org/faostat/en/#home.
- Colombia Reports. 2017. "Deforestation in Colombia up 44% in 2016: Report." Colombia News | Colombia Reports. July 7. https://colombiareports.com/colombias-deforestation-rate-44-2016-report/.
- *Casey, Nicholas. 2017. "After Decades of War, Colombian Farmers Face a New Test: Peace." The New York Times, July 18, sec. Americas. https://www.nytimes.com/2017/07/18/world/americas/colombia-cocaine-farc-peace-drugs.html.*

# *To what extent is commodity production negatively impacting designated protected areas and/or cultural heritage sites in the country?*

Colombia has over 600 protected areas nationally. Of these managed designations, just over 400 fall either directly within or border areas of cocoa production. This includes soil conservation districts, reserves for the Natural Civil Society, Regional National Parks, Integrated Management Regional Districts, and Flora and Fauna Sanctuaries. The Reserva Forestal Protectora Regional La Albania, Parque Natural Regional Del Vinculo, and the Serrania De Los Yariguies, are the in closest proximity to the highest production areas. There are no documented sources that single out cocoa as a detrimental commodity to protected areas however, there is a concern for starting Good Agricultural Practices (GAP) early to be resilient against future soil degradation and erosion.

#### References

- Protected Planet. UNEP/IUCN/WCMC. http://www.protectedplanet.net/.
- Forest & Landscape. 2011. "Good Agricultural Practices for Sustainable Cocoa Produciton: A Guide for Farmer Training". http://www.cocoasafe.org/Resources/GAPGuide.pdf

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2.3 PROTECTION AND CONSERVATION OF BIODIVERSITY Presence and impact on high or unique freshwater biodiversity

# To what extent do areas of high or unique terrestrial biodiversity exist within or near the region of production and to what extent is the commodity known to negatively impact those areas?

Colombia is one of the ecologically richest countries in aquatic resources as its watersheds are the primary headwaters for the Amazon. There are six globally recognized freshwater ecoregions in which cocoa production occurs: the Amazonas High Andes, the Magdalena – Sinu, the Orinoco High Andes, the Orinoco Piedmont, the Western Amazon Piedmont, and the Orinoco Llanos. These areas carry high ratings for species richness and endemism for amphibians, turtles, and fish., A number of agrochemicals are typically used in cocoa production, and while most are classified by the WHO as "Moderately Hazardous," Beta-cyfluthrin is classified as Ib or "Highly Hazardous." Because production occurs at higher elevations, runoff can affect downstream ecosystems.

#### References

- Conservation International. Biodiversity Hotspots. http://www.biodiversityhotspots.org/Pages/default.aspx
- WWF Ecoregions http://wwf.panda.org/about\_our\_earth/ecoregions/ecoregion\_list/
- Freshwater Ecoregions of the World. http://www.feow.org/

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• The WHO Recommended Classification of Pesticides by Hazard and Guidelines to Classification 2009. World Health Organization. IPCS, 2009. http://www.who.int/entity/ipcs/publications/pesticides\_hazard\_2009.pdf.

### 2.4 protection and conservation of biodiversity Presence and impact on high or unique terrestrial biodiversity

### To what extent do areas of high or unique freshwater biodiversity exist within or downstream of the region of production and to what extent is the commodity known to negatively impact those areas?

Colombia ranks as one of the one of our planet's "megadiverse" countries as it is home to nearly 10% of all biodiversity. It holds the top spot globally for bird and orchid species diversity, and is second in plants and butterflies. Production of Cocoa primarily takes place in the Andean highlands. This area in particular is closely monitored for deforestation and contains 13 WWF Globally Prioritized Ecoregions, about 20 AZE sites, and six RAMSAR wetlands sites.,, Production overlaps with critically threatened ecosystems: the Tropical Andes, home to 5% of all vascular plant species, over 660 distinct amphibian species (450 which are listed as threatened by the IUCN); and the Tumbes-Choco-Magdalena, home to just under 3,000 endemic plant species, which is experiencing a decline in species due to urbanization and deforestation. According to a water footprint assessment of Colombian cocoa production the crop is a low impact driver to ecosystems in which it is grown.

#### References

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- Convention on Biological Diversity. 2017. "Colombia Country Profile Show map: Biodiversity Facts". https://www.cbd.int/countries/profile/default.shtml?country=co
- Alliance for Zero Extinction. 2017. Map. Http://www.zeroextinction.org/maps/AZE\_map\_12022010.pdf
- WWF Ecoregions http://wwf.panda.org/about\_our\_earth/ecoregions/ecoregion\_list/
- Wetlands International. The Ramsar Sites Database. https://rsis.ramsar.org/.
- Critical Ecosystems Partnership Fund. 2017. "South America". http://www.cepf.net/resources/hotspots/South-America/Pages/default.aspx
- Ortiz-Rodriguez, Oscar O., Carlos A. Naranjo, Rafael G. García-Caceres, Raquel A. Villamizar-Gallardo, Oscar O. Ortiz-Rodriguez, Carlos A. Naranjo, Rafael G. García-Caceres, and Raquel A. Villamizar-Gallardo. 2015. "Water Footprint Assessment of the Colombian Cocoa Production." Revista Brasileira de Engenharia Agrícola e Ambiental 19 (9): 823– 28. doi:10.1590/1807-1929/agriambi.v19n9p823-828