







# Analytical Study: Environmental Crimes & Coca Activity in Ucayali

# **Executive Summary**

Crimes that affect the environment operate on a transnational level, altering ecosystems with widespread negative impacts for biodiversity. In the Amazon biome, these crimes represent in many cases irreparable damage. They generate health and safety risks for vulnerable communities and contribute to the further expansion of illicit economies. In response to this threat, UNODC in cooperation with USAID are implementing the ECOS Project - Regional Cooperation to Address Environmental Crimes with the aim to improve and strengthen criminal justice responses in prevention, detection, investigation, prosecution and adjudication of these crimes across the Amazon region. The development of this analytical study under the project denominated: Environmental Crimes and Coca Activity in Ucayali: Analysis of Relations and Dynamics aims to strengthen the capacities of national and local authorities to counter organized crime and environmental crime with an enhanced understanding and knowledge of the relationships and dynamics between crimes that affect the environment and coca cultivation and trafficking activity across the region.

The situation from these threats in Ucayali is increasingly worrisome for authorities. Over the past three years, the rate of annual forest loss, seizures of illegal timber and expansion of coca crop cultivation have all seen significant increases. In addition, the number of cocaine drug production labs destroyed by the national anti-drug police - DIRANDRO - has reached new highs in the country with an exponential increase in detected clandestine airstrips.

With these red flags being detected, a first step identified was to generate the evidence needed on the direct impact of coca cultivation on deforestation. The results of this analysis indicate that more than 50% of new coca crops detected between 2003 and 2022 in Ucayali have been established in areas deforested three years prior to their detection and are therefore considered to have generated a direct impact in forest loss. Upon analyzing the data from 2021 and 2022, more than 75% of new coca crops detected have directly impacted ecosystems and biodiversity from deforestation.



#### Ucayali over the last 3 years has led in:



Rate of annual forest loss.



Seizures of illegal timber.



Expansion of coca cultivation.



Cocaine production labs destroyed.

#### The region also faces:



A convergence of illegal national and transnational land, river and air trafficking routes.





of new coca crops analyzed between 2003 and 2022 are established in areas deforested in the three years prior to their detection.



# Coca cultivation in Ucayali is a driver of deforestation



**#75%** 

of new coca crops between 2021 and 2022, have been a direct driver of deforestation, concentrated in:



Forest concessions (up to 38% in 2022)

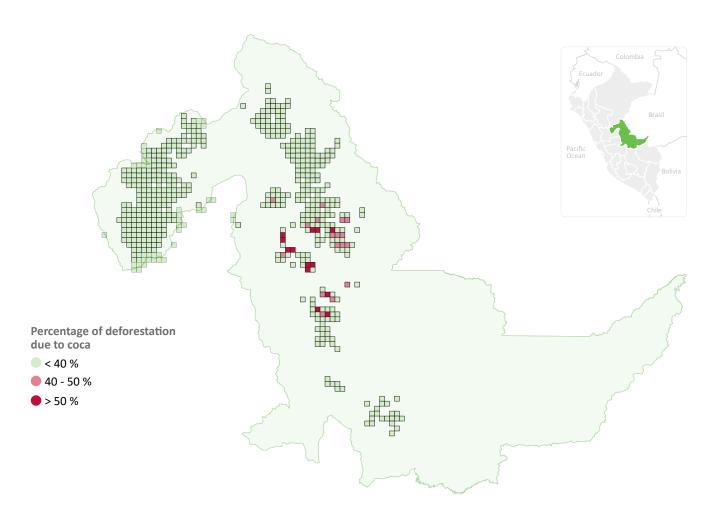


Permanent production of forests, free of concessions (up to 27% in 2021)



Native community territories (up to 21% in 2021 and 2022)

The study results provide clear evidence of the direct relation between the expansion of illicit crops and deforestation and coca cultivation activity as a driver of deforestation in Ucayali. Spatial analysis also reveals that the impact is mainly concentrated in the central territories of the region, where coca crops encroach on forest concessions, concession-free permanent production forests, and native community territories.



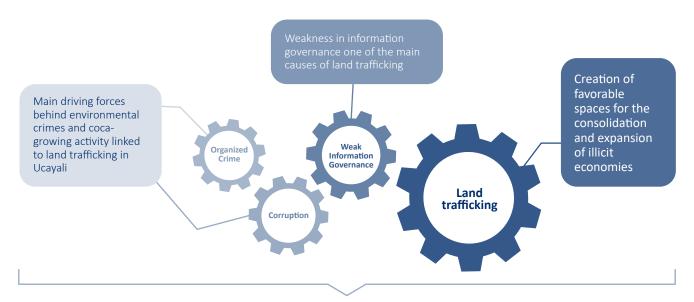
The initial findings also assist in better defining the key analytical steps needed to gain a comprehensive understanding of the links between environmental crimes, coca cultivation activity and related crimes.



The results obtained also suggest that land trafficking represents a key link between environmental crimes and coca cultivation in Ucayali. It's also clear that corruption and organized crime are key driving forces behind environmental crimes and coca activity linked to land trafficking in Ucayali. Weaknesses in information governance and management also becomes one of the main causes of land grabbing and invasions and consequently of the crimes that derive from it, creating spaces for the expansion of illicit economies.



# Land trafficking is the main link between environmental crimes, coca cultivation activity and related crimes

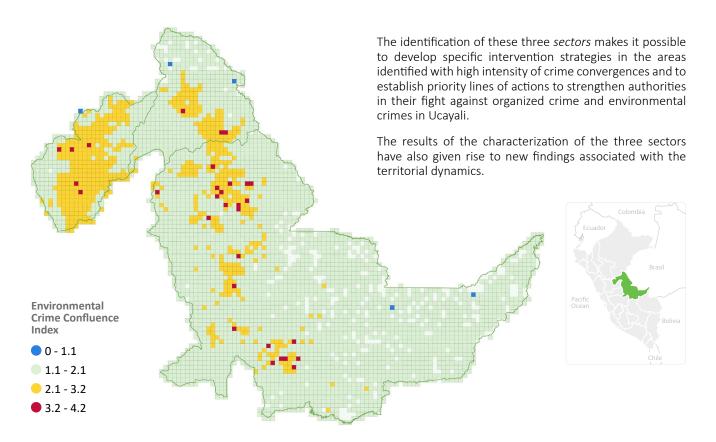


This links between criminal activities has been identified in the presence of a spatial relationship between different modalities of land trafficking, drivers of deforestation and the convergence of crimes and their spatial distribution. Land invasions have also been identified as mainly being associated with deforestation for illicit crops and drug trafficking. Illegal land titling processes and those associated with fraud and falsification of permits are mainly related to deforestation from migratory agriculture, agro-industrial monoculture farming, and livestock and cattle production.

The elaboration of a *crime convergence index* was developed to measure both the number of crimes present in the same area, as well as their intensity and distribution in the territories of Ucayali. This method identified three *sectors* in relation to the types of crime convergence with deforestation drivers, land trafficking, illegal trafficking routes and organized crime activities.



# There is a strong correlation between the convergence of crimes and their spatial distribution



## **SECTOR ONE:**

Located in the northeast territory of Ucayali, the predominate modality in this sector is land invasions and deforestation from the expansion of illicit crops. Numerous other environmental crimes also converge in this sector, including illegal timber harvesting, the opening of illegal or informal roads, illegal mining, and illegal trafficking of wildlife. There are related crimes of drug trafficking, corruption associated with titling processes, and organized crime associated with drug trafficking. According to the analysis supported by local-level field work, the Brazilian criminal group Commando Vermelho also exercises control of territory towards the border area with Brazil, an area with limited access capacity of authorities and external actors. This sector is also characterized by the presence of transnational fluvial routes, used often for drug, gold, timber and wildlife trafficking.



#### Numerous environmental crimes converge in this sector:

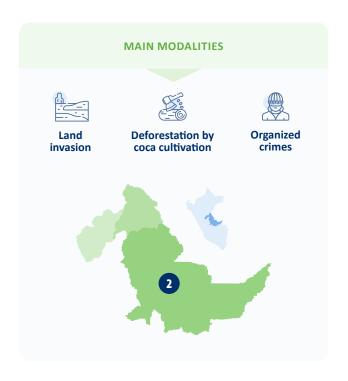






## **SECTOR TWO:**

Located in the central and southeast zones of Ucayali with the predominate modality of land invasions and deforestation being from the expansion of illicit crops, which in some localized areas also represent the main driver of deforestation. Both organized crime and illicit drug trafficking play an important role in financing and coordinating all stages of the criminal chain of activities in this sector. The convergence of environmental crimes here include illegal timber harvesting and the opening of illegal or informal roads or highways. Related crimes identified are the diversion of chemical inputs (used for cocaine production), money laundering and human trafficking. Sector two also includes areas under the territorial control of organized crime networks, in this case groups associated with illicit drug trafficking from the VRAEM region, according to intelligence information and informants.





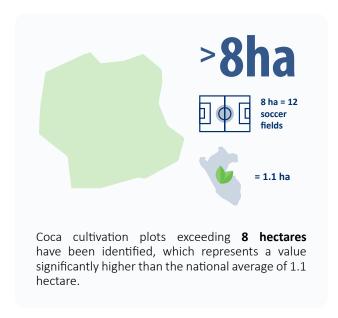
# Presence of illegal trafficking routes, both air, land and river

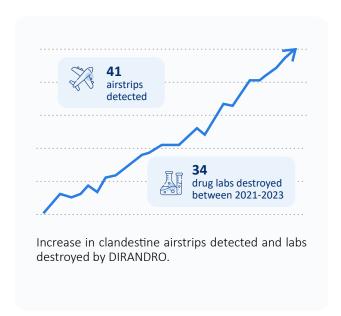


#### Other environmental crimes in this sector include:



The analysis supported by field work has also evidenced a new modality in the implementation of the coca cultivation activity by organized crime, which comes from the financing of land invasion processes, deforestation, implementation of illicit crops to the management of the entire trafficking supply chain.





## **SECTOR THREE:**

Located in the northwestern zone of Ucayali, presents a clear relationship between deforestation from migratory agriculture, agro-industrial monocultures, livestock and illicit crops, and the process of land titling rural properties.

Other environmental crimes also converge in this sector, including illegal timber harvesting, wildlife trafficking and illegal mining (non-metals). Related crimes include corruption associated with titling processes and offences of document falsification and fraud, organized crime associated with massive titling processes, and illicit drug trafficking.

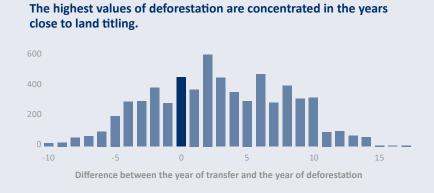






between 2021-2023

# Strong links between Deforestation due to migratory agriculture, agro-industrial monocultures, livestock and illicit crops. Land titling processes.



#### Other environmental crime convergences in sector three:



The scope of this study aims to develop concrete recommendations and propose actions based on the evidence generated which can strengthen authorities in their fight against organized crime and environmental crimes in the region.

## Recommendations

As a result of the participatory lines of work involving national and local authorities in the development of this study, fifty-three recommendations were consolidated. Of these, nine are related to strengthening the legal framework and public policies, eighteen focus on greater interagency collaboration, and fourteen focus on strengthening capacities and technological tools.

Subsequently, six final recommendations were consolidated and prioritized using participatory dynamics and considering their relationship with the underlying causes and the expected impacts of their implementation. In order to work on the establishment of an interagency work plan under the given recommendations, actions have been defined for short, medium and long-term implementation aligned with prioritized recommendations.

According to authorities involved and the results of the study, the following three (3) recommendations and short-term actions have been classified as **VERY HIGH PRIORITY**:



#### **Legal framework and policies**

Strengthen legislative instruments for the prosecution of environmental crimes associated with coca crop activities: Short-term lines of work



Present a proposal for a regulatory review to assess the relevance of including illicit cultivation as an aggravating circumstance for crimes against natural resources.



#### **Interagency collaboration**

Strengthen interagency collaboration for the use of logistical resources and personnel during operations: Short-term lines of work



Prepare a map of actors to identify available personnel and logistics, areas of intervention, functions, technical capacities and information being generated.



Include the participation of DIRANDRO in interventions and operations on environmental crimes located in territories with the presence of illicit crops.



#### Strengthening capacities and technological tools

**Strengthen information management capacities in authorities:** Short-term lines of work



Design and implementation of training programs focused on:

- Use of geomatics tools
- Data analysis and process automation
- Preparation of technical reports for criminal proceedings



Prepare a map of actors focused on the generation, use and flow of information.

# Impacts from the Implementation of **Recommendations and Suggested Actions**



Strengthened interagency collaboration



Strengthened detection, interception, investigation and prosecution



Reduced Corruption



Increased security of field personnel

The findings in this pilot study and the indications of "less visible" relationships require further investigation and have led to the elaboration of a strategy for future actions and definitions of steps to follow.

# Strategy for future actions

In order to achieve a deeper understanding of the territorial dynamics of organized crime related to environmental crimes and coca crop activity, it is suggested to continue with further analytical research adopting a transnational perspective on the matter. By understanding cross-border dynamics and relations, a coordinated and collaborative response can be developed that transcends national borders and contributes to more effectively combating organized crime and its environmental crime implications more closely aligned with this problem. This implies considering the interconnections and scope of criminal activities beyond local borders, identifying the influence of external factors and actors in the region.



What are the transnational dynamics and relations?

#### Take a National and Transnational Perspective



Deeper understanding of the territorial dynamics of organized crime



Develop a coordinated and collaborative response

# Next steps

• Provide continuity to interagency workshops with the following aims:



Develop a roadmap for the development/ implementation of recommendations



Strengthen collaborative mechanisms between authorities



Define the responsible authorities for the implementation of each prioritized action



Reinforce technical capacities of authorities in the topics prioritized in the recommendations

#### • Deepen knowledge of evidence and signs of relationships and dynamics of the following:



Indirect impacts of the coca crop activity on biodiversity and climate change



Migratory flows driven by drug traffickers



The expansion of crimes towards the borders of Ucayali and other parts of the country



The dynamics of territorial control and connections between actors involved or criminal networks



The weakening of communities to access territories and gender impact



Increased suspicious financial transactions and money laundering reporting



Eradication as an opportunity to focus on recovery and development plans

# Methodology

A working methodology was developed to align with the aims of the study consisting of five main stages in which constant coordination and interagency participation were promoted.



#### **Development of Initial database Generation of Design and** Interpretation information indicators implementation of spatial analytics Collection, Analysis of • Design of a From variables Cases and

Coordination and interagency work

standardization, and consolidation of data

- satellite images
- Overflights
- Data collection in the field
- Interviews with informants
- Working sessions with authorities
- multidimensional spatial database
- Automation of spatial calculations
- Multitemporal analysis

to multivariable descriptors and final indicators

results

report

Collaboration with various institutions allowed for a comprehensive understanding of the target issues, enriching the study with different perspectives and specialized knowledge. Additionally, this approach enabled for the validation of indicators and findings and the joint development of recommendations and implementation actions.



19 involved institutions



workshops



11 joint work sessions



meetings

Data collection and generation were carried out using technological tools such as satellite images, with evidence validation through field data collection, overflights, interviews with informants, and local stakeholders.



informants



analyzed satellite images (4 satellite sensors and range 2004-2022)



296 georeferenced points



interviews conducted



field routes covered:

- 5 by land (1.250 km)
- 1 by river
- 1 by air



1 180 photos

Analysis was conducted at both a descriptive statistical level and through cartographic and spatial analysis to identify, understand, and consolidate the study's findings. In this regard, a comprehensive analysis of all the variables was carried out to identify those that are relevant in terms of pertinence, quality, or temporal range, and to generate derived variables through geo-processing. These variables were validated by authorities through an interagency workshop at the local level. Finally, indicators were developed to provide evidence and describe the relationship and dynamics of the analyzed crimes.



analyzed



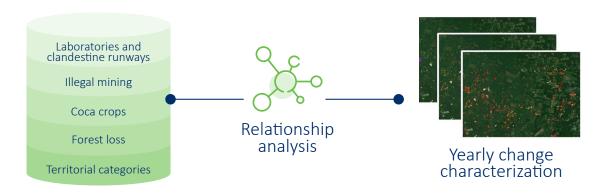
variables identified as relevant



26 derived variables



indicators developed



Upon completion of the analysis and measurement of derived variables and indicators, the interpretation and discussion of the findings were carried out and presented in this final analytical report. As a result of this work and its findings, specific recommendations and actions for implementation have been established and shared with partners involved.









