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**LINKS BETWEEN ILLICIT CROPS AND ENVIRONMENTAL DAMAGE,  
FROM THE PERSPECTIVE OF  
ALTERNATIVE DEVELOPMENT IN PERU**



74th Regular Session of the Inter-American Drug Abuse Control Commission (CICAD/OAS)



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## DEFORESTATION FOR COCA CULTIVATION



- ❖ Fragmentation of forests, loss of landscapes, and loss of carbon sinks.
- ❖ Loss of biodiversity and its habitat (plants, animals, fungi, protists, and monera).
- ❖ Loss of economic assets in timber and non-timber products.
- ❖ Loss of environmental services.
- ❖ Changes in land use: from forestry to other socioeconomic activities.
- ❖ Environmental vulnerability to the effects of climate change.
- ❖ Ecosystem degradation and desertification.

Clearing



Burning



Coca



Source: Ministry of Culture, 2019.

## SOIL DEGRADATION FROM COCA CULTIVATION



- ❖ Accelerated soil erosion due to torrential rains.
- ❖ Leaching of soil nutrients by rainfall and flooding.
- ❖ Soil contamination by frequent and intense use of agrochemicals (herbicides, fertilizers, insecticides, fungicides).
- ❖ Loss of organic matter from soils due to leaching and overexposure to the sun (four harvests per year).
- ❖ Soil degradation and desertification.
- ❖ Abandonment of the coca plot after the tenth year.
- ❖ Slow process of natural regeneration over several decades.

Sowing



Chemicals



Drying



Abandonment



## ENVIRONMENTAL CONTAMINATION DURING COCAINE PRODUCTION



- ❖ Dumping of precursor chemicals during cocaine production: fuels, solvents, inorganic acids, highly toxic bases and salts.
- ❖ Change in the chemical reaction of water toward acidity (pH), affecting biodiversity.
- ❖ Dissolution of aquatic species' protective mucilaginous layer, leading to death.
- ❖ Rising heavy metal levels in water due to the dissolution of inorganic acids, limiting water consumption for humans and animals.
- ❖ Reduction of inland fisheries, limiting the population's food supply.

Coca paste



Washed paste



Cocaine



Damage



## ENVIRONMENTAL EXPERIENCES FOR PREVENTION AND MITIGATION



Environmental  
education

- Raising public awareness about environmental risks.
- Training and support for community management to protect ecosystems.
- Training for the sustainable use of the environment.



Good environmental  
practices

- Environmental impact assessment.
- Solid waste and effluent treatment.
- Production of organic fertilizers.
- Preventive management of agrochemicals.



Agroforestry

- Agroforestry training.
- Agroforestry nurseries to produce seedlings.
- Planting and maintenance of the agroforestry system.



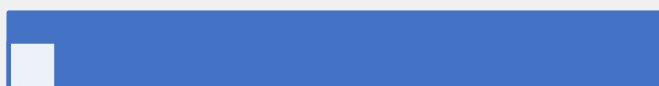
Reforestation

- Reforestation projects for the recovery of degraded ecosystems.
- Financial management.
- Executed by local governments.
- Monitoring and evaluation.



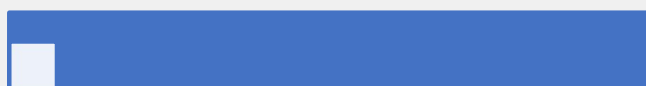
## CHALLENGES AND CONSEQUENCES

### Challenges



- Achieving the maximum sustainable use of primary forests.
- Achieving the best use of water with aquaculture activities.
- Greater productive diversification to ensure environmental and economic sustainability.
- Environmental and quality certifications for alternative products
- Compensation for increased reforestation and agroforestry.

### Consequences



- Use of non-timber forest resources (bio-businesses, handcrafts, medicinal plants, tourism).
- Self-supply of fish for consumption and trade.
- Improvement of agroforestry systems in harmony with forest architecture.
- Assured access to domestic and export markets.
- Entry into the carbon credit market.



*Thank you*

 **DEVIDA**