EVALUATION BRIEF

Monitoring system of illicit crops in the Mexican territory

BACKGROUND AND CONTEXT

Final Evaluation

Country: Mexico

Duration: 2016 to 2018

Evaluation team: Claudia Gonzalez Gonzalez (team leader), Aide Martinez Meza (Information analyst)

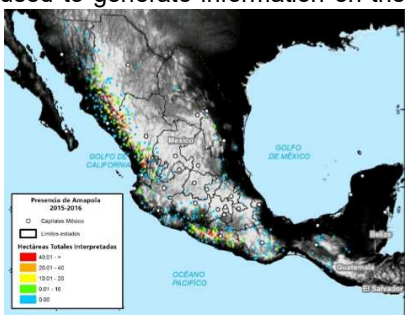
Duration: May 2012 to Current year

Budget: USD $2,766,568

Donors: Mexico/ Ministry of the Navy (SEMAR), Ministry of the National Defense (SEDENA) and Attorney General of the Republic (FGR)

The phenomenon of illicit crop cultivation is present in Mexico mainly because of its geography and climate, which in some regions provide ideal conditions not only for cultivation and harvesting but also for concealment. At present, and in accordance with the progress that has been made in crop monitoring in Mexico, it is considered that illicit cultivation corresponds mainly to marijuana (cannabis) and poppy (opium poppy) crops.

To address this issue, the Government of Mexico has implemented an Illicit Crop Detection System run by the Ministry of the Navy (SEMAR), through which satellite images are used to generate information on the planting of illicit crops in the country.



Opium Crops in Mexico (2015-2016)
Source: UNODC

Beginning in 2012, UNODC began implementing Project MEXK54 "System for Monitoring Illicit Crops in the Mexican Territory", whose objective is to establish links with the Mexican authorities that implement the monitoring of illicit crops through the strengthening of analysis and investigation processes and support for drug control policies.

EVALUATION METHODOLOGY

This evaluation was undertaken using a mixed-methods approach. It relied on different methods of triangulation, between quantitative and qualitative analysis techniques which included stakeholders' perceptions in assessing the reliability and validity of the information obtained from secondary sources. It also included in-depth interviews and an online survey distributed amongst the project´s operators and analysts.

MAIN FINDINGS

The evaluation found that the project has succeeded in consolidating different processes in the scope of the proposed objectives. Namely:

• Strengthened national technical capacities to generate information based on a solid scientific methodology to estimate the annual area under opium poppy cultivation in the country; to provide more objective information to national authorities on the location and size of illicit crops, in order to improve interventions; to have reliable and transparent statistics and information reflected in the UNODC annual reports on drugs and even contributing innovations to the UNODC ICMP programme. The most important products that account for this effort are the two reports on the annual estimates of poppy cultivation for the years 2014-2015 and 2016-2017.

• Reinforced and perfected the existing monitoring methodology by promoting technological innovation to improve the reliability in the constitution and improvement of the figures obtained, understanding that these will inform future studies.

• Strengthened methodological, logistical and institutional cooperation, both to finance the project and to reduce its costs through in-kind contributions.

• Promoted ownership of the region's methodological knowledge, the strengthening of its technological structure and the constitution of a trained technical team that supports its sustainability.

• Reaffirmed the commitment and the principle of cooperation to face the world drug problem and fulfill the commitments established by international treaties and resolutions on drug control. In particular, compliance with the recommendations on supply reduction, increasing cooperation at all levels and improving measures to prevent and significantly and measurably reduce or eliminate illicit cultivation for the production of narcotic drugs and psychotropic substances.

Reports of results
Estimates of total opium poppy cultivation in Mexico

Period	Hectares
2014-2015	26,100
2015-2016	25,200
2016-2017	30,600

LESSONS LEARNED AND GOOD PRACTICE

The evaluation has identified the following as lessons and practices that could be replicated in similar contexts:

Incorporation of vertical aerial photography in the process of identification and validation of illicit crops in addition to the analysis of satellite images, to obtain greater certainty and precision due to the details of image resolution and to achieve a comparable multi-temporal analysis, which allows adding new crops or discriminating repeated crops captured on different dates with the taking of the grids delimited in sample.

Incorporation of a triangulation process in the interpretation of satellite images and aerial photographs by highly qualified analysts. This process, in addition to generating greater experience in the analysts, provides greater precision in the generation of information.

Establishment of strategic partnerships that have provided benefits to the project, including with other countries which allowed for the exchange of information, knowledge and experiences; collaboration with national and international scientific institutions that provided greater certainty, consolidation and improvements through the timely identification of risks and their robust methodological experience; and inter-institutional collaboration between organizations that have the expertise in monitoring and destroying opium poppy and that have contributed human, financial and/or material resources.

Rigorous recording of the strategies implemented and documented in the reports issued and that characterize each process and their interrelationship among them, as a tool for analysis and scientific contribution to the methodological knowledge in the field of agricultural monitoring by remote sensors.

RECOMMENDATIONS

1. **Formalization and consolidation of processes:** Project management is encouraged to strengthen the generation of the results report with a regular periodicity for the consolidation, understanding and formalization of the different methodological processes.
2. **Dissemination (primary and secondary products):** Senior management should develop an outreach strategy to disseminate the information generated by the monitoring system. The development of an open web platform containing updated incidence maps, results of phenological studies and variables that impact on their incidence, methodological procedures and technological developments could be uploaded there.
3. **Promoting communication and coordination:** The project coordination should constitute team capable of promoting understanding between the teams of technical and methodological experts and the coordination of the project. This, to promote knowledge transfer between parties, increasing efficiency, improving response and feedback times.
4. **Updating:** The technical and operational team is advised to establish a permanent follow-up to the technological and methodological advances in the field of satellite monitoring and remote sensors and in turn, update the equipment permanently to the latest generation.
5. **Logistics:** The project coordination team should formalize the project's support network. This should prioritize contributions in kind to ensure that all the project's needs are covered on a regular basis and with an established periodicity.
6. **Innovation:** Project management should develop a follow-up project that develops new methods of estimating national production of ilicit crops.
7. **Collaboration with other scientific institutions:** Project management should strengthen collaboration with the scientific community to monitor and promote research on methodological advances in areas related to the monitoring and development of agricultural crops.
8. **Gender perspective:** Management should implement actions to encourage collaboration from female personell.
9. **Pilot:** Future projects should consider a pilot pahse for the implemention of innovative methodology.

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