

Assessing Mining Pressure in the Ecuadorian Amazon: Analysis of Environmental and Social impacts

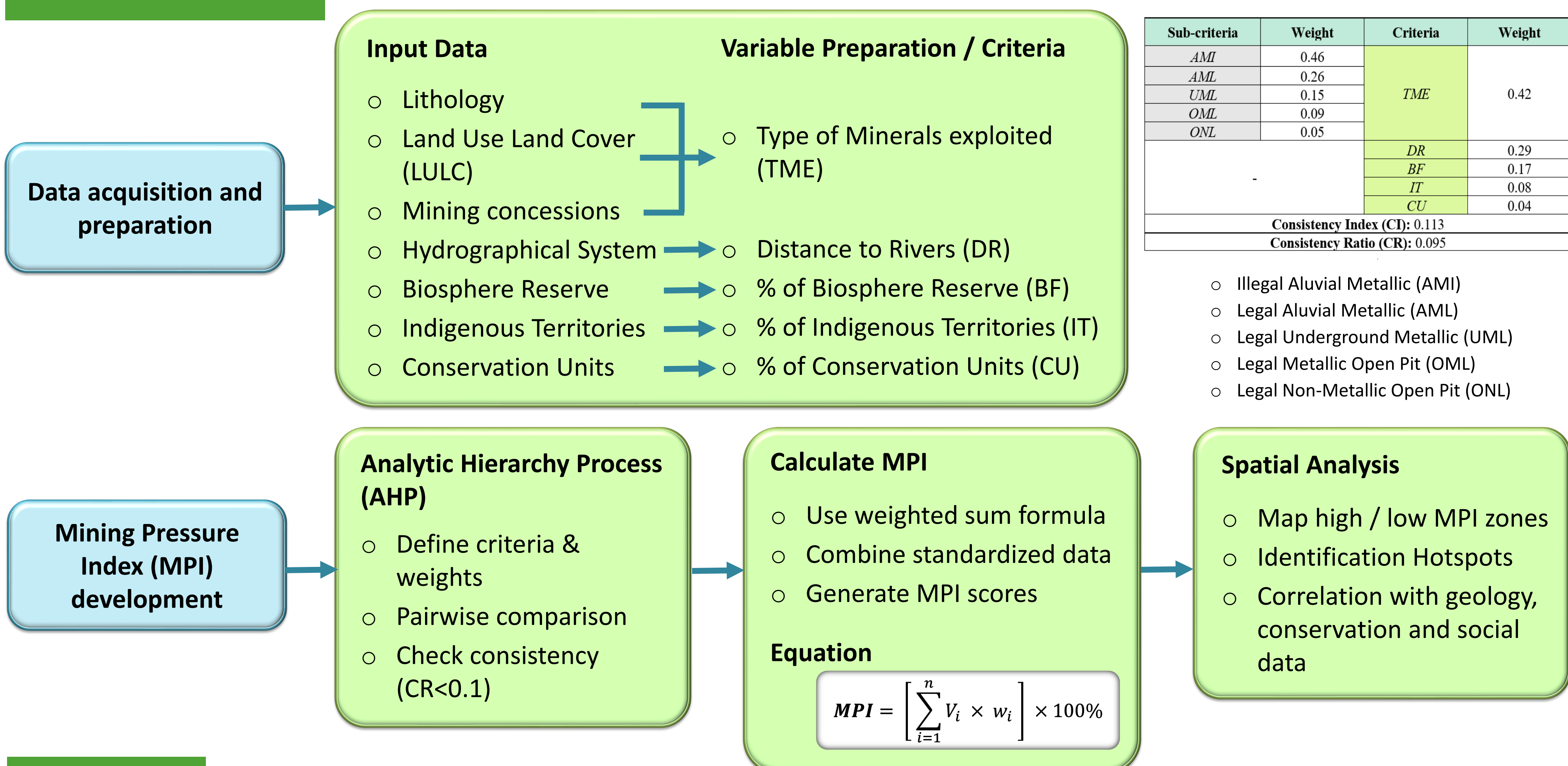
PROBLEM

Mining activities in the Ecuadorian Amazon have intensified in recent decades due to increasing mineral prices. In addition to illegal mining, inadequate environmental management and non-compliance with regulations in some legally registered concessions contribute to deforestation, ecosystem degradation, river contamination, and social conflicts with indigenous communities. In particular, the Jatunyacu River basin represents one of the areas where these combined pressures are notably concentrated.

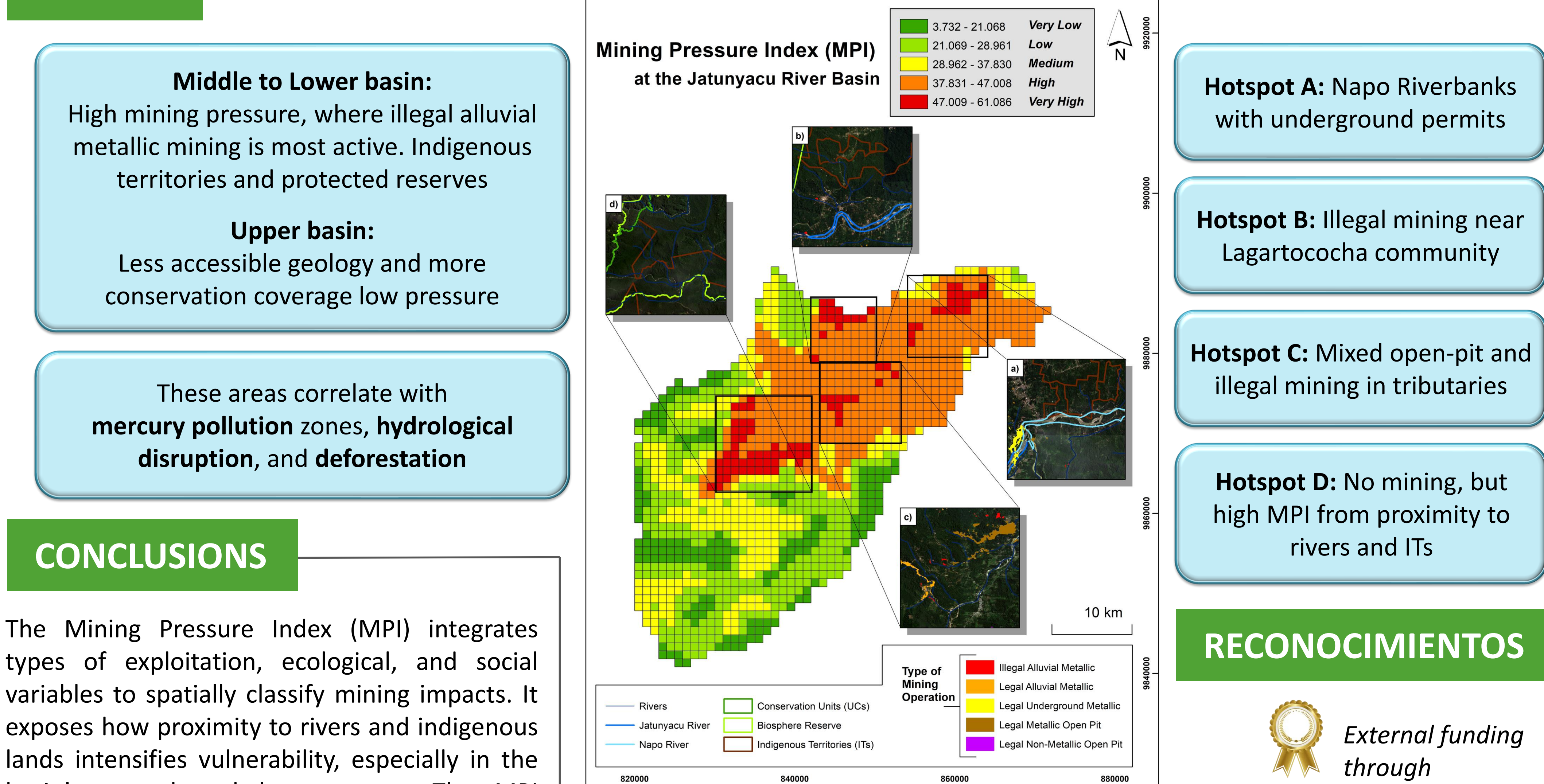
GENERAL OBJECTIVE

To develop a Mining Pressure Index (MPI) based on a multi-criteria approach integrating geological, environmental, and social variables for the assessment of mining pressure in the Jatunyacu River basin and the identification of priority areas for conservation and environmental management in the Ecuadorian Amazon.

METHODOLOGY



RESULTS



CONCLUSIONS

The Mining Pressure Index (MPI) integrates types of exploitation, ecological, and social variables to spatially classify mining impacts. It exposes how proximity to rivers and indigenous lands intensifies vulnerability, especially in the basin's central and lower zones. The MPI framework supports:

- Targeted environmental restoration
- Conflict-sensitive zoning and enforcement
- Policy alignment with conservation and indigenous rights

Adoption of MPI by authorities can guide more equitable and effective land-use planning in the Amazon.

RECONOCIMIENTOS



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