



ATSAF - CGIAR++ Junior Scientists Program Final Report

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Country: Peru

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Start and end date of stay at IARC: -

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Title: Land-use changes and deforestation frontiers in the Peruvian Amazon. Analyzing causes and trajectories of development from a social-ecological perspective

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Final Report

Karla Vergara Rodríguez

The ATSAF - CGIAR++ Junior Scientist Program has helped me conduct the thesis to complete my studies at the Master's Program Global Change Geography. The guidelines provided by the ICRAF team to learn the application of the DriveNet methodology and the data obtained through this methodology have been fundamental for the methodological application and analysis in my thesis.

When the funding began in May 2021, it was not possible to establish contact or meetings with my supervisor at ICRAF because she was on medical leave. I was also unable to contact the rest of the team because they were constantly in internal meetings due to the institutional restructuring of ICRAF. We resumed contact at the end of June. From that time on, the contact flow increased. Our communications and exchanges reduced again in August and September because the ICRAF team conducted fieldwork in the Peruvian Amazon, which limited their time availability and internet connection. Still, by that time, they had already introduced me to the DriveNet methodology, and I began to work with it.

We exchanged and discussed the methodology and data during October and November. In early November, the ICRAF team even contacted me with one of ICRAF's former collaborators for DriveNet, Parmutia Makui, who explained to me very clearly the theoretical framework, methodology, and data processing related to DriveNet. With his help and the support of the ICRAF team, I was able to identify the best way to process data and combine it with the analysis of deforestation frontiers at the spatial level.

I have received constant support and supervision from my thesis advisors at Humboldt University during the funding period. Dr. Matthias Baumann and my co-supervisor, Ana Buchadas, constantly advised me on deforestation frontier spatial data analysis. We have also had several meetings with the ICRAF team and my advisors. In fact, on December 3rd, we all participated in a meeting with a CIFOR team in charge of the new phase of the Global Comparative Study on REDD+ on deforestation archetypes. The idea of the meeting was to start discussing synergies and potential collaboration related to deforestation frontiers since the work of my advisor is related to these subjects, and the DriveNet data, in the framework of my thesis.

The context of the COVID-19 pandemic made it challenging to interact with the ICRAF team, especially to work more fluently in the methodology and data to meet the planned times in the interrelation of results. The ICRAF team was not working at their headquarters in Peru, so traveling to Peru would not have changed the situation. Despite all that, the ICRAF team was very willing to support me with their time and information for the data analysis and methodology discussion. Their contributions have given me new perspectives on common research topics and future research.

The research that I have developed on land-use changes and deforestation frontiers in the Peruvian Amazon with spatial information and the dataset collected by ICRAF with the DriveNet methodology has allowed me to be in the last process for completing my thesis. The preliminary results of the deforestation frontier and their causes and causal mechanisms from a social-ecological perspective also provide helpful information to ICRAF's research agenda and its participation in the new phase of the Global Comparative Study on REDD+ deforestation archetypes.

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The experience of working together with my advisors at the university and with the ICRAF team has motivated me to continue analyzing causes and mechanisms of deforestation, combining spatial information with Network Analysis at the level of different ecosystems. I even think of applying for a Ph.D. and developing my research related to Network Analysis and deforestation causes and mechanisms. Likewise, I would like to establish collaboration links with ICRAF in research subjects such as rural development, deforestation frontiers, causality mechanisms, and others in the Andean Amazonian socio-ecological ecosystems.