

## Final Evaluation Report

---

Your Details	
<b>Full Name</b>	Juan Arturo Mendoza Ramirez
<b>Project Title</b>	Stakeholder participation in the conservation of two Ramsar Sites in the River Basin of Valle de Jovel, in Chiapas, Mexico
<b>Application ID</b>	31654-1
<b>Date of this Report</b>	28 <sup>th</sup> June 2022

**1. Indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.**

Objective	Not achieved	Partially achieved	Fully achieved	Comments
<p>To identify, using the Qualitative Geographic Information System (GIS), the current extent of the mountain wetlands.</p>				<p>While it was possible to identify the current extent of La Kisst and Maria Eugenia Mountain wetlands and have maps of these Ramsar sites for our project, we achieved it by making partnerships with other relevant actors from the study area.</p> <p>At the beginning of the project, I had the idea of mapping the full extent of the two Ramsar sites (more than 200 ha) with the support of my research team. However, although governments have declared some legal status for the conservation of these two mountain wetlands, in many cases, pieces of land are still private property or belong to an unknown owner, complicating logistics around the mapping process.</p> <p>These circumstances removed any chance to ask for formal authorisations (permissions) from governments to access the two Ramsar sites to do a complete mapping because governments do not have total ownership of the wetlands. Furthermore, in those cases where governments have the property and/or jurisdiction over some portions of the natural areas, it was hard to identify the authority level (local/municipal, state, or federal) and the responsible agency to submit our petition. I found that government agencies do not want to assume their responsibilities for natural areas and get rid of requests like mine by simply responding that another agency is more appropriate to raise my petition.</p>

			<p>I intended to have legal permission from the responsible authorities to enter the wetlands because it would have functioned as a notice of police protection in case of any dispute/controversy around mapping in remote and isolated areas.</p> <p>One of my main concerns was the safety of my team, as in recent times, problems around natural areas have become more acute and unleashed into violence. According to reports I documented while staying in the field, some forms of organised crime have stakes in activities that deplete natural areas in the region, producing serious clashes with local environmentalists and authorities. I did not want to expose myself or my team members to some risk while mapping areas under the control of those criminal groups.</p> <p>Another concern was trespassing and the probability of a criminal offence by entering private property while mapping. Despite being declared "critical habitats" for the river basin, which ideally should become authorities in full ownership and control of these natural areas, portions of the wetlands are still private property. Although the two Ramsar sites have some form of legal instruments for their protection, I noticed that it does not exist in practice.</p> <p>All these issues delayed the mapping process for a while. However, after networking with member staff from the Secretary of Environment and Natural History, we had the chance to join them in a mapping process they had been conducting in the same areas for the past two years. Thanks to this partnership, we had the chance to access documents and locations that otherwise would have been almost impossible to reach.</p> <p>One thing to note is that these civil servants were doing the mapping with resources from their own pockets</p>
--	--	--	--

			<p>because of a governmental shortage of funds for activities related to wetlands conservation and/or protection. So, we agreed to support them with some resources in exchange for joining the team in the mapping activities to get information and experiences for our project.</p>
<p>To analyse the main economic, social, and environmental factors that influence stakeholder participation inside the River Basin Committee of Valle de Jovel, for the conservation of the mountain wetlands.</p>			<p>After using qualitative research techniques such as interviews, focus groups, observation, etc., and working closely with relevant actors from the public and private sectors, it was possible to identify elements that have influenced stakeholders in taking an active role in environmental conservation.</p> <p>We used three categories (economic, social, and environmental) to manage the data we got from our research methods analysis; then, we resume each classification into seven factors that have influenced stakeholders to participate in wetlands conservation for the past few years. We found that this approach would be better to subsequently design specific actions to tackle complex problems around social engagement on environmental issues.</p> <p>We also conducted a literature review on stakeholder engagement in environmental conservation in developing countries, which we contrasted with practical studies of similar contexts to our study area. Doing this was valuable as we could identify problems that seem to replicate everywhere; we also found issues distinctive to the study area because of different factors, such as culture and traditions, demography, geography, environment, etc.</p> <p>The results might contrast similar studies conducted in the river basin by other scholars; nonetheless, the degree of these differences is mainly driven due to our research objectives and methodology.</p>

<p>To integrate, using Thematic Analysis, the data provided by the application of the research techniques to design conservation actions for the best allocation of limited natural resources in the study area.</p>			<p>When we collected enough data from the application of our research techniques, that is, when we noticed a saturation point in the information received from participants, we decided that it was time to start with the thematic analysis of our data. Two members of the research team and I conducted the thematic analysis. The first step was to familiarise us with the data (interviews and focus group recordings and transcriptions, field notes, etc.) by repeatedly reading and reflecting on it.</p> <p>The next step was to identify common patterns and meanings in the data to create codes, which subsequently were classified by the team into general themes. For example, in conversations with stakeholders, we found patterns that made direct or indirect references to a legal background that lacks incentives for wetlands protection and conservation. Several people mentioned things such as "no governmental programme for land management", "indiscriminate land-use change in protected natural areas", and "no incentives for holders to incorporate ecological aspects on their lands". Then, we tried to make meaning of each repeated pattern and integrate it into a specific code. Finally, collating codes with supporting data (e.g., maps) allowed us to create themes. For this sample, the general theme was: "lack of incentives for environmental conservation in the Maria Eugenia Mountain wetland".</p> <p>The themes we concluded with allowed us to design actions to improve the conservation efforts in the Ramsar sites. Using the previous example, the measures we proposed were:</p> <ol style="list-style-type: none"> <li>1. To update the catalogue of holders with a property stake in the Maria Eugenia Mountain wetland at</li> </ol>
--	--	--	--

			<p>the municipal level.</p> <p>2. To actively lobby fiscal incentives for those deed holders and properties willing to take sustainable actions to preserve the natural services of the Maria Eugenia Mountain wetland. Once achieved, this action should be reinforced by a catalogue of properties and holders that received this fiscal incentive for monitoring purposes.</p>
<p>To present a coherent public policy proposal to the River Basin Committee of Valle de Jovel, that prioritises the conservation of the mountain wetlands for the best allocation of natural resources in the region.</p>			<p>We had a series of meetings with the Directive Board of the River Basin Committee of Valle de Jovel to present our findings on the current situation of the Ramsar sites and the best conservation actions to undertake based on our data analysis.</p> <p>To this extent, we added a new category (legal) to our main classification of findings (economic, social, and environmental). Concerning public policy, we understood that if there is a rule of law supporting policy decisions and actions, it makes a significant difference in guaranteeing conservation efforts. Several hints pointed to a much broader problem related to weak law enforcement in the region and its effects on natural resource depletion; therefore, we decided to create an additional category to integrate all those legal-related factors.</p> <p>For instance, many stakeholders from the river basin mentioned in conversations such things as: "no actions from judicial authorities even though the existence of denunciations because of actual wetlands' destruction", "illegal authorisations for human settlements on Ramsar sites", and "violence against environmentalists who advocate protecting the mountain wetlands", to mention a few. It suggests the importance of the legal aspect in nature conservation.</p> <p>As mentioned, our recommendations</p>

			<p>are based on the findings we got from our data analysis and are our policy suggestions to be included in future actions of the River Basin Committee of Valle de Jovel around mountain wetlands conservation.</p>
<p>To run a programme of workshops for a wider public aimed to promote education and awareness of the vital role that the mountain wetlands' natural services provide for the balance of related ecosystems, the support of diverse and endemic flora and fauna, and human livelihoods inside the catchment area.</p>			<p>We ran six workshops about the current situation of the Ramsar sites of Valle de Jovel. The programme of workshops aimed to promote education and awareness about the importance of wetlands for the environment and populations in the river basin.</p> <p>The workshops were open to the public and organised in safe places close to the mountain wetlands, such as private houses, schools and neighbourhood halls surrounding specific depleting natural areas. According to our findings, these areas are critical for guaranteeing conservation efforts because it seems to be a lack of understanding and comprehension of the effects that even small actions have on the detriment of ecosystems, flora and fauna, and even human livelihoods. The overall structure and themes we tried to cover in each workshop were as follows:</p> <ul style="list-style-type: none"> <li>What is a mountain wetland, and what is a Ramsar site?</li> <li>The importance of mountain wetlands' natural services - why protect a Ramsar site?</li> <li>What is the situation around La Kiss and Maria Eugenia wetlands?</li> <li>What about related ecosystems?</li> <li>What about flora and fauna?</li> <li>What about human livelihoods?</li> <li>What to do next? Small actions that count.</li> <li>What can I do start from me, my house, my neighbourhood, and the city?</li> <li>Let's identify authorities, institutions and the overall legal framework around natural areas.</li> <li>Let's promote education to protect the environment.</li> </ul>

				<p>We must attend to people's needs and involve them in conservation efforts.</p> <p>Listen to people's dreams, and all together plan the future steps to protect the mountain wetlands.</p>
--	--	--	--	--

**2. Describe the three most important outcomes of your project. a). Reliable data and information.**

Thanks to our methodology, we got a wide range of data sources covering specific objectives of our project; for example, we identify the current size of the mountain wetlands, the related ecosystems and populations, and how all these fit together within the river basin context. Additionally, we contrasted these raw facts with the qualitative data provided by relevant stakeholders about the causes of environmental degradation and the effects on local flora and fauna; for instance, how human expansion over ecosystems has threatened species such as the Chiapas killifish (*Tlaloc hildebrandi*), the bearded screech-owl (*Megascops barbarus*), and the crested-tailed deer mouse (*Habromys lophurus*), among many others. And more importantly, we were able to organise all those facts from different sources to have comprehensive information to build up a coherent report about what is happening around the Ramsar Sites of Valle de Jovel.



We recognise the paramount relevance of having reliable data and information as a requisite for successful conservation efforts in contexts where humans and nature

coexist. We noticed that information changes fast, making reports as recent as 2 years old not matching the existing situation around protected natural areas in the river basin; regrettably, in many cases, destruction of nature seems to go faster than conservation efforts. In these scenarios of rapid change, having updated data and information is key to coping with unpredictability.



**b). Proposals for change**

One of our research objectives was to engage in the policy debate around the conservation of the Ramsar sites of Valle de Jovel to achieve the best allocation of limited natural resources in the region. Therefore, we were happy to suggest to the local River Basin Committee and other public institutions our research findings on La Kist and Maria Eugenia Mountain wetlands.

We summarised our findings in a two-page document containing 28 suggestions of actions to perform for the conservation of the Ramsar sites of Valle de Jovel. These proposals are divided into four sections (economic, social, environmental, and legal) and present the conclusions reached in our thematic analysis.



### **c). Education**

The evidence suggests that one way to achieve awareness is through education. Very frequently, people are not fully conscious of the impact that small actions have on the environment. In this regard, our programme of workshops promoted education to raise awareness.

According to the overall structure and themes covered in our workshops, we addressed awareness in two ways:

On the one hand, we talked about the intrinsic value of wetlands, describing their characteristics as ecosystems, functions for the environment, and how they are habitats for diverse animal species, many of them endemic to the region. On the other, we included the human/social factor in the discussions by addressing how these ecosystems have been modified, reduced, and destroyed by settlement expansion in recent years, and possible solutions to these problems.

It is relevant to mention that we approached education as a two-way strategy, where knowledge and experiences were shared among all the participants of the workshops.



Additionally, our two-page document containing the "proposal of actions" will contribute to the policy debate by offering possible solutions to implement in favour of the mountain wetlands. That document was not intended exclusively for the authorities but for everyone interested in knowing more about the mountain wetlands of Valle de Jovel. In such a way, it is also a route of promoting education and awareness in the region.

**3. Explain any unforeseen difficulties that arose during the project and how these were tackled.**

**A). COVID-19**

Although we visualised the COVID-19 pandemic as an obstacle to the development of our project because we applied for the Rufford grant at the beginning of the pandemic, we never imagined the long-term effects it would continue to have everywhere, plus the real impacts on our research project.

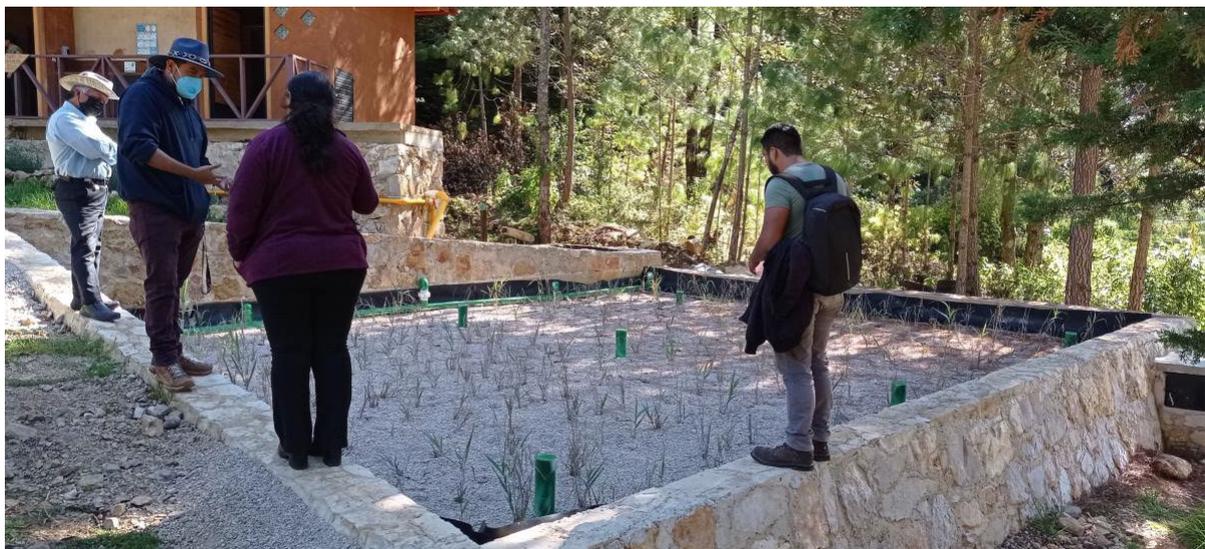
First, I had to postpone my travel to Mexico several times because of governmental restrictions on international travel flights. It created frustration and anxiety in the research team as situations were very uncertain about having an established date to start the research activities. Moreover, I was required to complete all the necessary risk assessments before engaging myself in any field activity, and COVID-19 was an obstacle in getting those approved by my university.

To overcome those difficulties, we decided to start conducting some online research while restrictions got lifted by governments. For the starting months, my research team and I worked and communicated online to develop our project. In Mexico, my research assistants tried to gather as much data as possible and engage with local actors; on the other hand, I received that data and conducted some interviews using technological tools like Skype or Zoom. While it was always

challenging working like this because of communication issues around technological connectivity, now that I reflect on the situation, it was better than not doing anything during those uncertain months.



I was allowed to travel to Mexico in October 2021 and had the chance to stay in the field for 7 months to develop my research project. During that time, issues around COVID-19 restrictions were obstacles to our activities, which we always struggled to overcome, such as wearing facemasks and keeping distance everywhere, last-minute cancellations of meetings because of COVID-19 illness concerns, and related closure of offices.



#### **B). Trespassing and informal settlements in natural areas**

As mentioned before, we had some difficulties when starting the mapping process of the mountain wetlands. Despite being declared as "critical habitats" by the government (which supposedly gives these natural areas a special legal status for protection), we did not discover any official records of land ownership of the Ramsar

sites by the government. According to many opinions, that simple fact would improve conservation and protection efforts around La Kist and Maria Eugenia wetlands by triggering a justification for law enforcement in case of trespassing to build informal settlements.

So, many portions of the mountain wetlands are private property or belong to an unknown owner. The first case usually implies that people do whatever they want in their properties, like building houses or filling wetlands with concrete or similar materials. The second case is comparable, with the addition of being illegal and producing more damage to the ecosystems because of all the implications around the expansion of informal settlements/houses.



Consequently, the challenge was to get ready all the necessary permissions to enter the wetlands to do a complete mapping. Due to the characteristics of these ecosystems, where water covers considerable portions of land for varying periods during the year, we needed to access through different areas. The problem was that those accesses were, in most cases, private property or informal settlements. Therefore, the real obstacle was identifying who owned/possessed which piece of land, formally or not. We did not have too much time for bureaucratic processes, nor did we want to trespass on private property or enter into conflict with invaders from the informal settlements (for safety reasons/concerns).

In this regard, civil servants from the Secretary of Environment and Natural History invited us to join them in a mapping process conducted in the wetlands for the past 2 years. In this way, we saved time around getting the official permissions and had access to valuable data and information for our project. We discovered that the solution to these problems was through building partnerships with other relevant actors from the basin.



**4. Describe the involvement of local communities and how they have benefited from the project.**

The involvement of local communities was in two ways: first, in the data collection process by providing research data, and second, by attending different meetings where we shared our findings after analysis.

Local communities participated in the data collection process by providing their thoughts, experiences, and wisdom on environmental and water issues. They kindly and freely took part in different research techniques, such as face-to-face interviews, focus groups, and mapping processes. We acknowledge that without the support of local communities, we couldn't have gone through all the project stages.

We are grateful because many people opened up on these issues and allowed us to go into their houses, schools, neighbourhoods, and offices to discuss our project concerns.



However, the first kind of involvement wouldn't have been anything without sharing our project findings. In this regard, local communities were also supportive by attending our programme of workshops to promote education and awareness on environmental issues. Likewise, institutions were supportive by kindly receiving our suggestions around possible conservation efforts for La Kiss and Maria Eugenia Mountain Wetlands.

In terms of the benefits, we believe that our proposal document around the conservation of the Ramsar sites contains different benefits for local communities if well implemented. Lastly, we recognise that it is up to the goodwill of authorities and local people to continue with any conservation effort started in the region so far.

Furthermore, the six workshops we conducted were valuable as the objectives and messages were delivered to the intended audiences. Because of this fact and the nature of the activities, we think of education as a seed implanted in local communities, with awareness as the ending outcome that will boost a change in people's attitudes around the management of ecosystems and their species.

Finally, people mentioned that decisions on environmental management and governance tend to be from a top-down perspective, with very few spaces for ordinary citizens in decision-making processes, let alone the inclusion of their opinions in those decisions. In this regard, this project was an opportunity for the people willing to take an active role in nature-based solutions to participate in a bottom-up and inclusive perspective. In these contexts, the benefit of being heard

and involved is priceless.



**5. Are there any plans to continue this work?**

Yes, we plan to continue with the work we have done so far in the river basin of Valle de Jovel; we do not want to stop the efforts started in the local area nor break the networks built with relevant actors from the region. From our experience, we understood that education is a never-ending process necessary to achieve social awareness, stakeholder participation, and environmental justice. Therefore, we believe that our developed project is an investment of human and financial resources that still needs to reflect more benefits for the local ecosystems and their species, particularly the mountain wetlands.

Talking about animal species, we have noticed that the number of threatened species has drastically increased in recent years, with a tendency that suggests continuing for the foreseeable future and adding more species if proper actions are not taken by society soon. It is not a surprise if we attend the evidence indicating that more than 90% of the original mountain wetlands of the catchment area have been destroyed by human activity in the last few decades. Species such as the thorny spikethumb frog, *Rana ladrona gris*, and the Chiapas killifish are critically endangered due to the devastation of their habitats. Moreover, more than 80 animal species (including fishes, amphibians, reptiles, birds, and mammals) may suffer a change in their conservation status; numbers are similar for plant species. It suggests that more work needs to be done in terms of conservation.



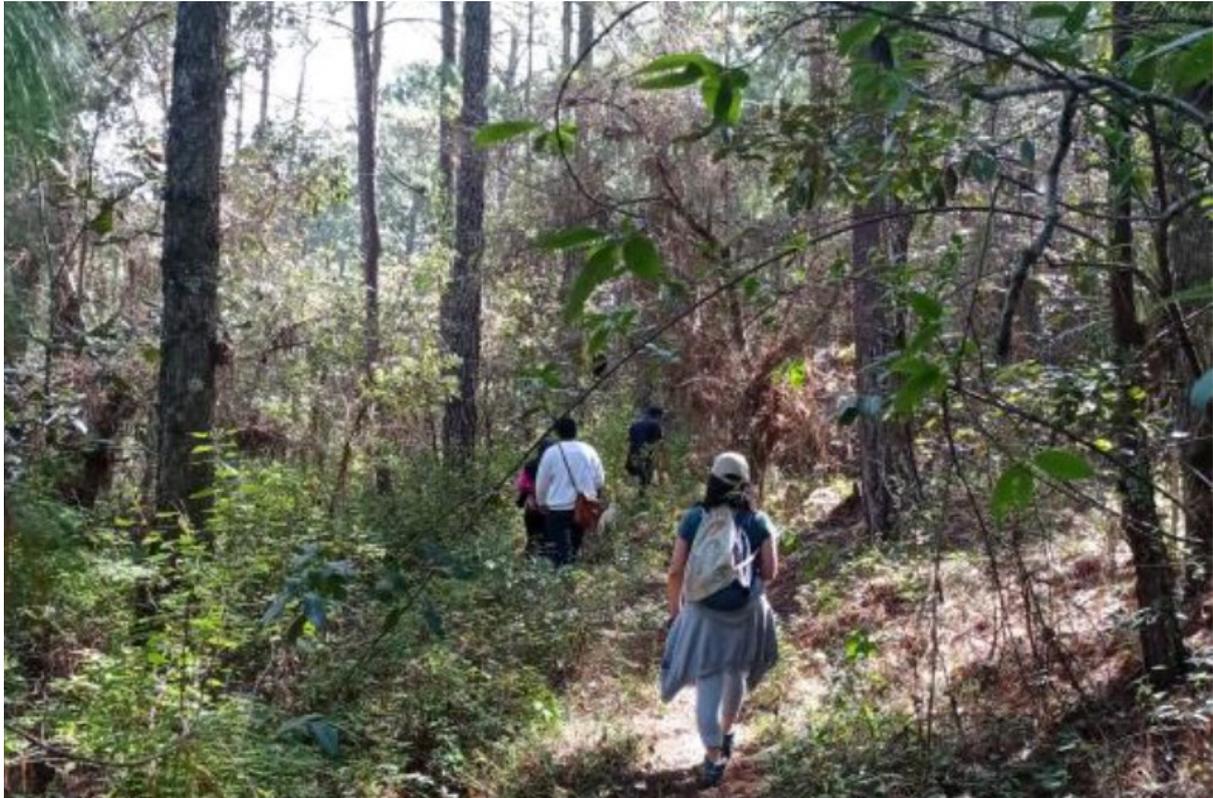
To this extent, according to rural residents, one main concern is that research projects do not have continuity after the primary activities have finished. They feel disappointed because some actions need time to mature to see the expected results, but frequently these are abandoned before it happens. We understand that this is determined very often by the funding resources of the project itself. The evidence suggests that financial constraints (or lack of financial resources) hinder any conservation effort in the region. Consequently, if things are favourable in the upcoming months, we aim to apply for a 2nd Rufford Small Grant to continue our project activities in the Ramsar sites.

#### **6. How do you plan to share the results of your work with others?**

I aim to write two papers derived from this project. Once ready, I will send these to open access journals to reach more people who may be interested in environmental conservation.

I think that our findings and the proposals we have for some of the problems in the study area could be helpful for people carrying out similar projects around the world. So, a grateful way of contributing to these conservation efforts is by publishing our work in a scientific journal.

I will be more than happy to share my experiences, results, and opinions with others; the same goes for the difficulties and setbacks faced during the development of our activities, as I am sure people with similar projects may find these helpful.



## **7. Looking ahead, what do you feel are the important next steps?**

One step that would make a big difference in the project's impact is monitoring. However, my experience told me that this is hard to achieve because monitoring is expected to be applied when the main research activities have finished, which requires extra financial resources and time for its execution.

During the development of our project, we experienced first-hand the difficulties of monitoring environmental management. For example, in several interviews, local authorities told us that each year, they have a reforestation campaign in which they seed more than 1 million trees in the river basin; nevertheless, they consider that one in 10 trees survives after 6 months. They admitted that it is a raw calculation because they do not have the means to monitor and produce accurate data, let alone secure that each tree has more chances to survive.

Monitoring our project has its challenges too. In my opinion, we can apply it to two subjects: the impacts of the programme of workshops and the policy recommendations.

In the first case, promoting education and awareness, we must consider education as the first phase to complete and then awareness as the consequence of that process. In this regard, we had six workshops on diverse environmental management issues with people from the study area, and we delivered/covered the subjects as expected. Hence, measuring the raising of awareness in local communities would be the object of the monitoring process; one indicator to use

would be if people have changed their attitudes towards environmental conservation since they attended the workshops. The methods to apply are key informant interviews, surveys with participants, and direct observation of mountain wetlands and surrounding areas.



Concerning the document that we presented to the local authorities about our policy recommendations for the mountain wetlands of Valle de Jovel, we recognise that it is up to the goodwill of institutions to implement each of the actions we suggest. Other factors such as the political agenda, financial constraints, and private interests may determine the adoption of our policy recommendations. Nevertheless, we can monitor progress in that area by applying methods such as documentary evidence, policymaker ratings, and key informant interviews.

We assume that any improvement in the conservation of the Ramsar sites of Valle de Jovel would also mean improvements in the status of flora and fauna species. However, the challenge will be to determine quantitative and qualitative the level of change and then to link any improvement back to specific project interventions. The evidence suggests that it is hard to achieve and will require combining expertise from different disciplines; maybe we will include it in any future application.



**8. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did the Foundation receive any publicity during the course of your work?**

Yes, we used The Rufford Foundation logo in all the material we produced for this project according to the terms indicated in the offer letter. We also explicitly made publicity for the Foundation in each of our activities.

**9. Provide a full list of all the members of your team and their role in the project.**

<b>Team member</b>	<b>Role</b>
Juan Arturo Mendoza Ramirez	Team leader.
Lizeth Montoya Estrada	Research assistant. She was the contact point with local actors of the river basin during the first phase of the research process (lockdown).
Jorge Alberto Moguel	Research assistant. He worked alongside Lizeth in building networks with local stakeholders; he was also in charge of the mapping process during that stage (lockdown).
Raul Alfonso Aguilar	Research assistant. He was responsible for the mapping process of the project (second phase); he also assisted in collecting and analysing data from the research techniques application. He participated in the workshops and policy recommendations making.
Elia Yasmin Rodriguez	Research assistant. She helped to apply different research techniques as well as in the data analysis process. She assisted in the workshops and policy recommendations making.
Abelardo Morales	Translator Spanish-Tsotsil. He used his language knowledge expertise to collect and analyse data in Tsotsil (a Mayan tongue) and design the workshops.

**10. Any other comments?**

We want to express our deep gratitude to The Rufford Foundation for the invaluable support provided for the development of this project; without your sponsorship, we could not have gone through all the stages of our research activities. You are the heroes and true champions of environmental conservation in the developing world. We look forward to teaming with you again on any future nature conservation project.

