CLIMATE CROWD

Community-driven solutions to help people and nature in a changing climate

MADRE DE DIOS

PERU SUMMARY REPORT

JANUARY 2025

ABOUT

Climate Crowd is a bottom-up community-driven approach. Working with communities and local NGOs, we collect data on climate impacts to communities, analyze the data, present the data back to the communities, and work with them to develop, fund and implement on-the-ground solutions that help people and nature adapt to a changing climate. The Climate Crowd model provides a rapid way to gather data, pilot projects, and mobilize financial resources for the most vulnerable communities, through a participatory method.

BACKGROUND

This report summarizes what was learned from 60 interviews with key informants (22 female, 38 male) in various communities within the Madre de Dios region of the Peruvian Amazon which borders Brazil and Bolivia and is a priority jaguar landscape for WWF. Interviews were conducted by WWF-Peru in November and December of 2024.

REPORTED CHANGES IN WEATHER AND CLIMATE (n=60)

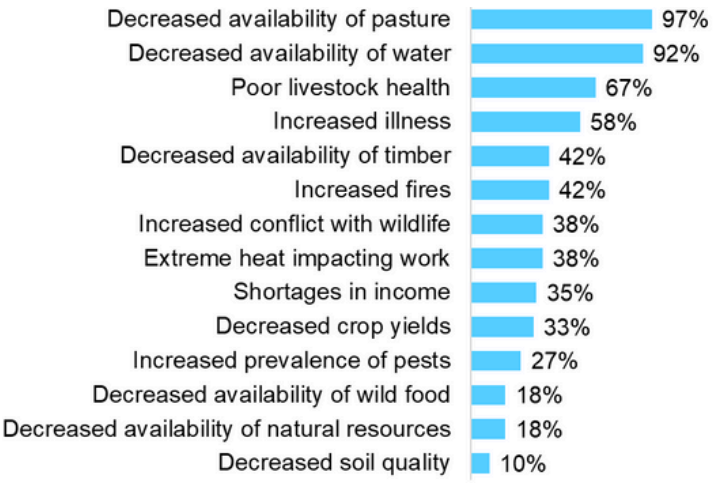
- **97%** Heat waves and hotter days
- **93%** Drought
- **92%** Changes in the timing of seasons
- **88%** Loss of water source
- **83%** Decreased rainfall
- **32%** Increased rainfall
- **15%** Changes in wind patterns

IMPACTS ON COMMUNITY LIVELIHOODS

Extreme heat and water scarcity have significantly impacted the availability of pasture for livestock (reported by 97% of respondents), often decreasing their health and weight (reported by 67% of respondents). According to 35% of respondents, this causes shortages in income as livestock loses their value.

Respondents noted that shortages in income are sometimes caused by an inability to work during peak daytime hours as it is too hot (reported by 38% of respondents). Extreme heat and increased fires (reported by 42% of respondents) have also caused an increase in illness, such as heat stroke, exhaustion, and respiratory problems due to smoke and dust (reported by 58% of respondents).

92% of respondents reported a decreased availability of freshwater, especially in nearby streams and springs, specifically saying that the flow has decreased or that they have dried up entirely. While many respondents have wells for their personal use, this has significant impacts on water availability for livestock.



Heat and drought have affected crops like mangos, oranges, and corn, with 33% of respondents reporting reduced yields and 10% reporting decreased soil quality. This is also impacted by an increase in pests (reported by 27% of respondents), which community members attribute to climate change.

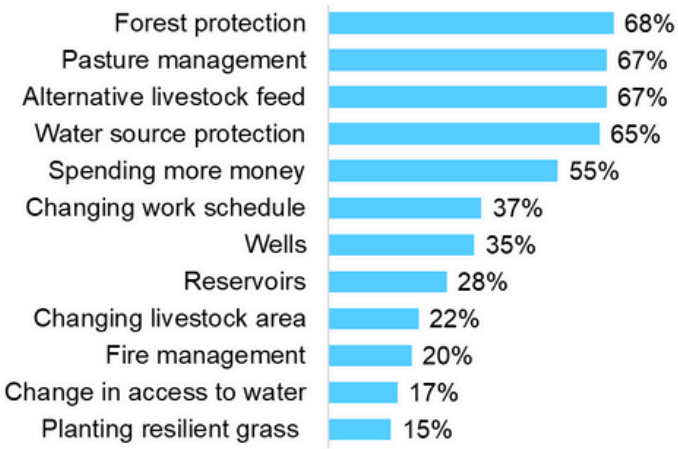
42% of respondents reported a decrease in timber availability, primarily due to fires and drought. Natural resources have been generally more difficult to find (reported by 18% of respondents), including wild food (reported by 18% of respondents), like Brazil nuts. Community members have also been experiencing increased conflict with wildlife, like jaguars and peccaries, as they come into communities and farms looking for diminishing resources like food and water (reported by 38% of respondents).

> *"Chestnut production has also been affected, with premature fruit drop and a reduction in the amount collected, from 220 barrels in previous years to 150 or less currently. This is attributed to extreme heat affecting flowering and chestnut production."*
> – Farmer

COMMUNITY RESPONSES TO CLIMATE CHANGE

In response to declining natural resources and the effects of extreme heat and drought, 68% of respondents reported increasing their efforts to protect the forest, including reducing logging, planting native tree species, keeping livestock out, and not over extracting resources. Similarly, 65% of respondents reported implementing protective measures for water sources like streams and springs, like planting trees to prevent degradation and erecting fences to prevent damage from livestock.

67% of respondents reported increased management of pastures, including pasture rotation and division and using electric fences to keep animals out of recovering pastures. Additionally, 15% of respondents reported planting more resilient types of grass that can withstand the heat. Instead of managing existing pastures, some people moved their livestock to different areas with better vegetation (reported by 22% of respondents).

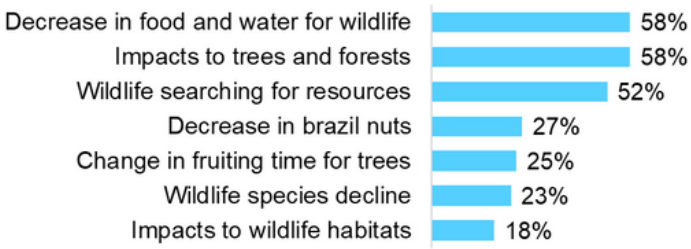


To supplement declining pastures, 67% of respondents reported having to purchase or grow alternative feed for their livestock. This, in addition to other interventions like well maintenance and heat protection, was said to have increased costs, according to 55% of respondents.

In response to decreased water availability, 35% of respondents reported increased or new use of tubular wells for domestic water needs, while 28% reported constructing reservoirs or ponds to store water and for livestock to use. 17% of respondents also reported having to change where they access water.

Due to extreme heat, 37% of respondents reported having to change their work schedule to not be outside during peak sunlight and heat. Additionally, 20% of respondents reported increased management of wildfires, like creating fire breaks.

DIRECT IMPACTS ON BIODIVERSITY



Resources have become scarce for wildlife as well, with 58% of respondents reporting that food and water sources for wildlife have decreased, causing them to venture outside their usual range (reported by 52% of respondents). Some respondents also mentioned that wildlife habitats are becoming degraded (reported by 18% of respondents) and species' populations are declining (reported by 23% of respondents).

> *"Regarding animals, I've seen jaguars that are thinner than usual. I think they lack food because the resources in the forest are also decreasing. I've also seen wild pigs or guanganas, but in smaller numbers. The changes in the climate, like high temperatures and lack of water, are affecting both plants and animals."*
> – Store owner/Farmer

58% of respondents noticed that changes in weather and climate, specifically extreme heat, decreased rainfall, and increased fires, were having detrimental effects on the forests and trees. This is especially the case for Brazil nut trees where 27% of respondents reported declines and changes in fruiting. This also applies to many fruiting and flowering plants, with 25% of respondents noticing changes in plant life cycles.

INDIRECT IMPACTS ON BIODIVERSITY

As people cope with the effects of climate change, their actions can have impacts on biodiversity. One instance of this is communities' efforts to **reforest their environment with native trees like quinilla, mahogany, and shihuahuaco, as reported by 52% of respondents.** This was especially mentioned when discussing forest and water source protection, where respondents would say that they would reforest areas that have important water sources and natural resources in an effort to conserve them. While this is generally positive for conservation outcomes, **some respondents reported actions that degrade biodiversity, like relocating livestock areas** (reported by 8% of respondents). To do this, respondents mentioned that some people deforested areas to make room for pastures, or that by moving locations, the new areas' resources became depleted.

WANT TO LEARN MORE?

Visit the Climate Crowd **website** to explore and download interview data, view **project pages**, and read more summary reports like this on our **publications page**.

wwfclimatecrowd.org

climatecrowd@wwfus.org

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