



# CLIMATE CROWD

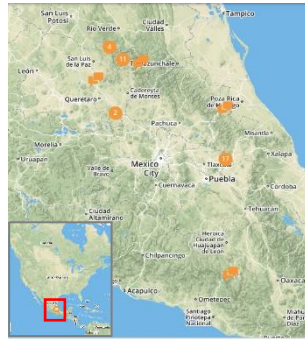
Crowdsourcing to help people and nature in a changing climate

## MEXICO: SUMMARY OF FINDINGS

July 2018

### OVERVIEW

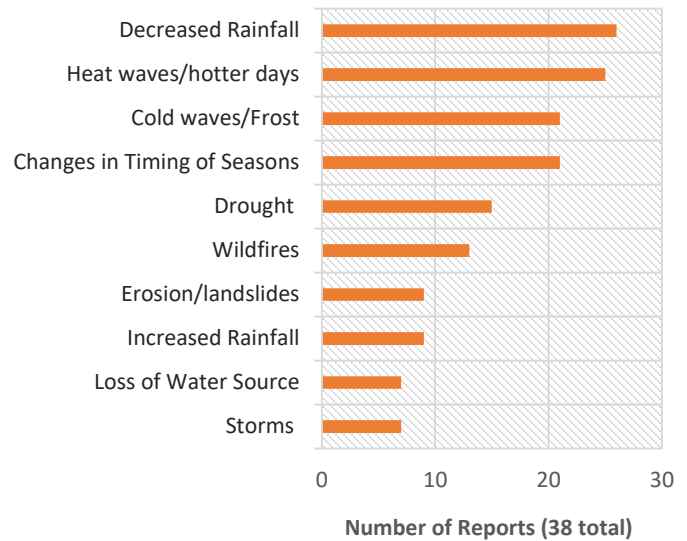
Climate Crowd is an initiative to crowdsource data on how people and nature are affected by changes in weather and climate. See our collection of [data](#), submit your own [observations](#), and explore adaptation [solutions](#).



We also work to identify trends in our data to help inform on the ground conservation and development activities. 38 interviews were conducted by Peace Corps volunteers and WWF staff in central and southern Mexico where declining rainfall and extreme temperatures threaten agricultural livelihoods. Many people, particularly youth, are abandoning farming in rural communities to pursue employment in cities and abroad. Others who stay are implementing various water management techniques and increasing their use of fertilizers and pesticides. Increased reliance on natural resources as an alternative source of income has also been reported and is contributing to forest loss and degradation.



### REPORTED CHANGES IN WEATHER/CLIMATE



### IMPACTS ON COMMUNITIES

- Declining crop yield (~82% of surveys)
- Reduced availability of freshwater (~66%)
- Decreased income (~55%)
- Increased prevalence of pests and diseases affecting crops and natural vegetation (~37%)
- Decreased availability of wild foods, particularly game such as rabbit and quail (~37%)
- Decreased firewood availability (~32%)
- Declining soil fertility (~26%)

### COMMUNITY COPING STRATEGIES

- In response to increased pests, many farmers have increased their usage of chemical-based pesticides (~45%)
- Many people, particularly the younger generation, are seeking off-farm employment or education (~34%) and are migrating to cities or abroad (~37%)

- Due to declining freshwater resources, farmers are implementing water retention techniques primarily through the construction of ditches (~32%) and dams (~13%)
- In response to decreased agricultural income, some respondents have resorted to collecting firewood and cutting down trees in communal forests as an alternative source of income (~26%)
- Efforts have also been underway to protect and restore natural ecosystems and the services they provide (~26%), through activities like tree planting
- Increased reliance on government support (~26%)
- In response to declining soil quality, farmers have also increased their use of fertilizers (~24%)
- Many respondents have stopped farming entirely or have reduced the area of land they cultivate (~21%)
- Shifting seasonal patterns have led many farmers to change their planting times (~13%) and some have switched to other crops (~13%)

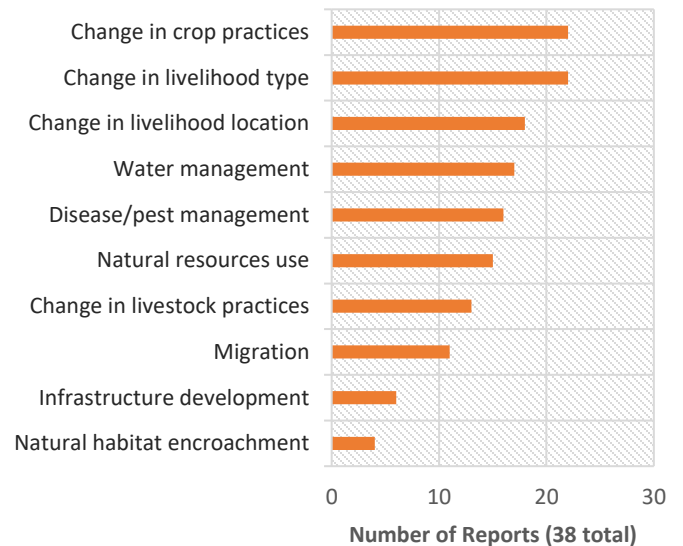


Above: To help farmers adapt to increasingly unpredictable weather, WWF funded a project in Oaxaca state to install fog catchers combined with artificial water channels between rows of crops.

Photos: © Ninel Escobar/WWF-MX

Citation: Climate Crowd, 2018. Mexico summary report. World Wildlife Fund, Washington, DC.

## RESPONSES TO CHANGES IN WEATHER/CLIMATE



## IMPACTS ON BIODIVERSITY

- 68% of those surveyed noted declining flora and fauna, with 61% of respondents attributing biodiversity loss to direct impacts of climate change, including drought, wildfires and pests. Wildlife mentioned include opossums, armadillos, quails, fox, ravens, bobcats, badgers and local vegetation including pines and fruit trees
- Risk of habitat degradation and loss is a common concern as more farmers turn to forests to harvest natural resources (~29%)
- 21% reports mention impacts of increased fertilizer/pesticide use on local biodiversity, in addition to human health

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