

# Successful Binational Collaboration in the Chihuahuan Desert to Increase Resilience to Climate Change

## *The Big Bend Rio Bravo Region*

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# Outline

- ☀ Impacts of climate change in the Big Bend-Río Bravo region
- ☀ History of binational efforts
- ☀ CEC support in the region
- ☀ Climate change actions and successes
- ☀ Future conservation needs
- ☀ Successful binational efforts and challenges





# Big Bend-Río Bravo (BBRB) Region



7 PA: 5 in Mexico and 2 in the US  
Area: 3.5 million acres



# Climate Change Impacts in the BBRB Region

- ☀ Diminishing supply and increased demand on water availability (increased droughts)
- ☀ Grasslands and landscape degradation
- ☀ Loss of biodiversity and presence of invasive species
- ☀ Decreased economic productivity – cultural shift in local communities
- ☀ Overall weakening of the region in its capacity to adapt to the impacts of climate change

## What can be done?

- ☀ Increase ecosystem resilience
- ☀ Support transition to a green economy by increasing conservation and ecotourism

# Binational Efforts in the BBRB Region

- 1998** – MOU between DOI and SEMARNAT to develop binational action plans
- 2003** – Riparian vegetation management begins (CONANP, NPS, WWF, IBWC)
- 2007** – Beginning of binational climate change planning
- 2008** – WWF organized a binational river symposium with regional stakeholders
- 2009** – Meeting and field trip to the Río Conchos to discuss environmental flows (CONANP, NPS, WWF, CONAGUA)
- 2009** – Binational public-private partnership development about grassland restoration techniques (DOI, CONANP and Cemex)
- 2010** – Secretary Salazar and Minister Elvira developed an **action plan** for cooperative conservation in the Big Bend-Río Bravo region  
Big Bend Conservation Cooperative MOU (FWS, NPS, USGS, TPWD)
- 2011** - Presidents Obama and Calderon recognized and designated the Big Bend-Río Bravo region as a **natural area of binational interest**



# CEC Support to the BBRB Region

## **Binational activities:**

- ☀ Invasive species management and planning
- ☀ Wildland fire and emergency response training
- ☀ Restoration in the Rio Grande tributaries
- ☀ Sediment load studies in the Rio Grande
- ☀ Eco-tourism assessment and planning
- ☀ Region-wide assessment of conservation priorities
- ☀ Adaptive management for climate change planning





# Future conservation actions needed upon climate change impacts

- ☀ Landscape-level monitoring in all 29 areas of conservation priority to assess the effect of climate change
- ☀ Riparian and grasslands restoration and conservation to increase resilience
- ☀ Milkweed (*Asclepias* sp.) reforestation for Monarch butterfly migration corridor
- ☀ Broaden the partnership to involved more experts and private landowners/*ejido* members
- ☀ Assessment and management of visitor load and carrying capacity in recreational ecotourism areas
- ☀ Continue developing the binational vital signs protocol to monitor ecosystem early changes





# Successful binational efforts and challenges

- ☀ The Big Bend-Río Bravo partnership is the **only example** of transboundary conservation collaboration within the Chihuahuan Desert and one of the few examples across North America.
- ☀ The CEC effort support in the BBRB area of common interest has brought other players and interested stakeholders to work in the region, boosted by a core group of energetic, dedicated professionals with strong personal and family connections in the region

## Challenges:

- Harmonize monitoring protocols across sites
- Remoteness helps biodiversity preservation of the area, but also limits transboundary conservation efforts
- Limitations for staff to work together on both sides of the border. Newly open border crossing in Boquillas in 2013!
- Differences in conservation and management approaches: great opportunity to learn and complement each countries' experiences and challenges





# Thank you

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