# 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



#### 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

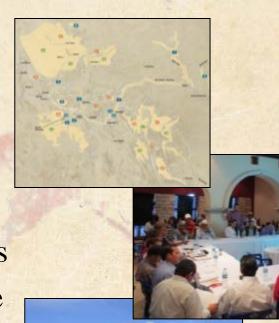
- 1998 MOU between DOI and SEMARNAT to develop binational action plans
- 2003 Riparian vegetation management begins (CONANP, NPS, WWF, IBWC)
- 2007 Beginning of binational climate change planning
- 2008 WWF organized a binational river symposium with regional stakeholders
- 2009 Meeting and field trip 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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