

Border Security Action Research: a cooperative, comparative analysis of three distinct point-of-entry areas

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Action Research

A process of cooperative problem solving between researchers and a “community of practice” to improve the way that community achieves its mission, addresses issues and solves problems

Research undertaken by large organizations or institutions, assisted by professional researchers, with the aim of improving their strategies, practices, and knowledge of the environments within which they practice

Term first introduced by Kurt Lewin, MIT (1944)

Systems Focus

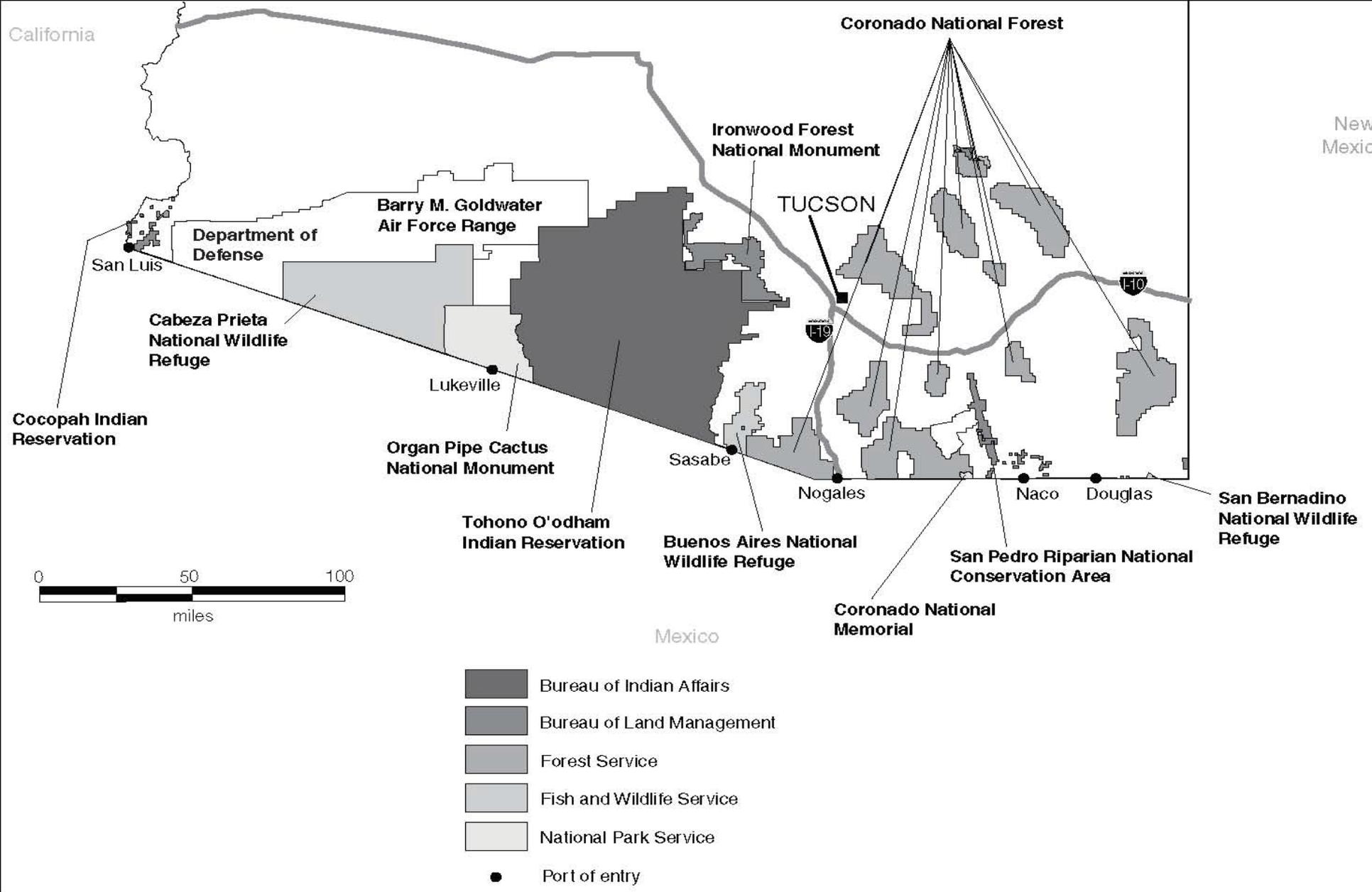
- Holistic
- Interrelationships and Interdependencies
- Multi-perspective
- Focus on “the space between”

- *We will work to create a unified vision for this agency. In its short existence, we have seen - sometimes too clearly - the consequences of parochial lines and failure to communicate across those lines. We must and will streamline those communications to make certain the right person has the right information at the right time.*

– DHS Secretary Janet Napolitano, Jan 15, 2009

- Units responsible for fielding new systems:
“We need to do a lot of work on PC and server common operating environments. Because we are finding out that servers have different disk drives on them, different versions of Oracle, different versions of the operating system. And as a result of that we can’t distribute software in a rational manner.”
- Units responsible for security:
“From the [security] perspective diversity is not such a bad thing. If every piece of software is absolutely standardized, one hole gets you in everywhere. When an adversary has to figure out which executable is on which computer among 1,300 possible options, that makes his targeting problem hugely more difficult. That’s a fundamental point that’s almost always missed.”

- Units responsible for rapid response in the field:
“There is a general disconnect between systems mandated at HQ and the availability or usability of those systems in the field. This has evolved because it is easy to mandate down to the field and it is sometimes hard for HQ to understand how things work in the field—the realities on the ground. HQ has an interest in the field perspective, but there is also a lack of understanding... The regulatory environment is diverse and inconsistent and that’s far more of a concern than technology issues.”
- Units responsible for HQ Resource Coordination:
“You cannot let country offices go off on their own; they need guidance and oversight. We provide technical assistance on tracking and monitoring of losses. We make sure that [resources are] made available to the right people at the right time at the right price... In order to aid with coordination we have developed standardized tools to help with forecasting and analysis... Regulations give structure to people’s jobs; they know what needs to be done...”



Source: GAO.

Interdependencies Among DHS, Land Management Agencies, etc.



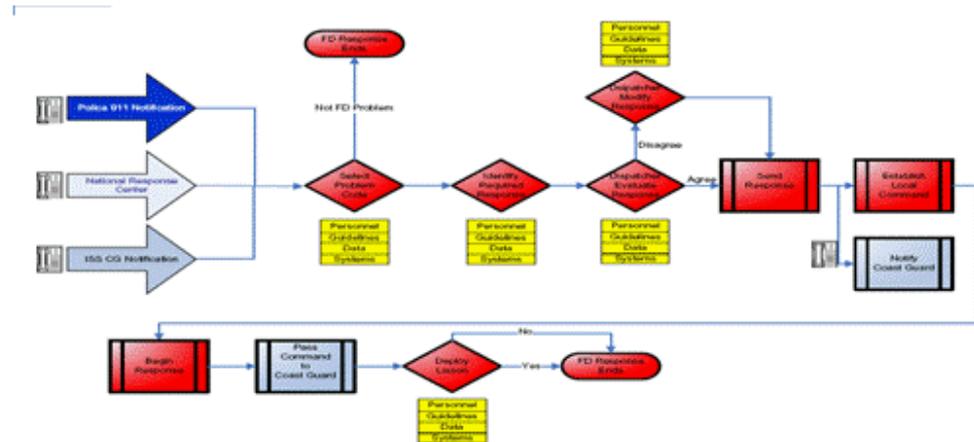
| | Blaine-White Rock | Detroit-Windsor | El Paso-Ciudad Juarez |
|---------------------------------|--------------------------|------------------------|------------------------------|
| Total Incoming Persons | 5,556,546 | 10,452,920 | 32,583,136 |
| Personal Vehicles | 2,763,389 | 5,471,657 | 14,062,053 |
| Trucks | 438,001 | 1,773,465 | 782,936 |
| Personal Vehicle to Truck Ratio | 6.31 | 3.09 | 17.96 |
| Pedestrians | 0 | 12,250 | 8,454,434 |
| Freight Commodity Value | \$17,851,983,509 | \$135,599,894,734 | \$49,054,261,664 |



Project 1: Operational Analysis



Goal: to understand and improve the principles and processes of border security systems



Information transparency breeds self-correcting behavior.
-- Admiral Thad W. Allen

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NCBSI Multi-Site Operational Analysis of Border Security Processes

- Blaine – University of Washington
- El Paso – University of Texas El Paso
- Detroit – Wayne State University

- Interestingly, all three have ODNI Centers of Academic Excellence (3 of the 10 CAEs)
- Two of the three have ODNI OIRs

Similarities and Differences

Help balance the benefits of
“competing goods”:

e.g.

Uniformity



Diversity

Standards



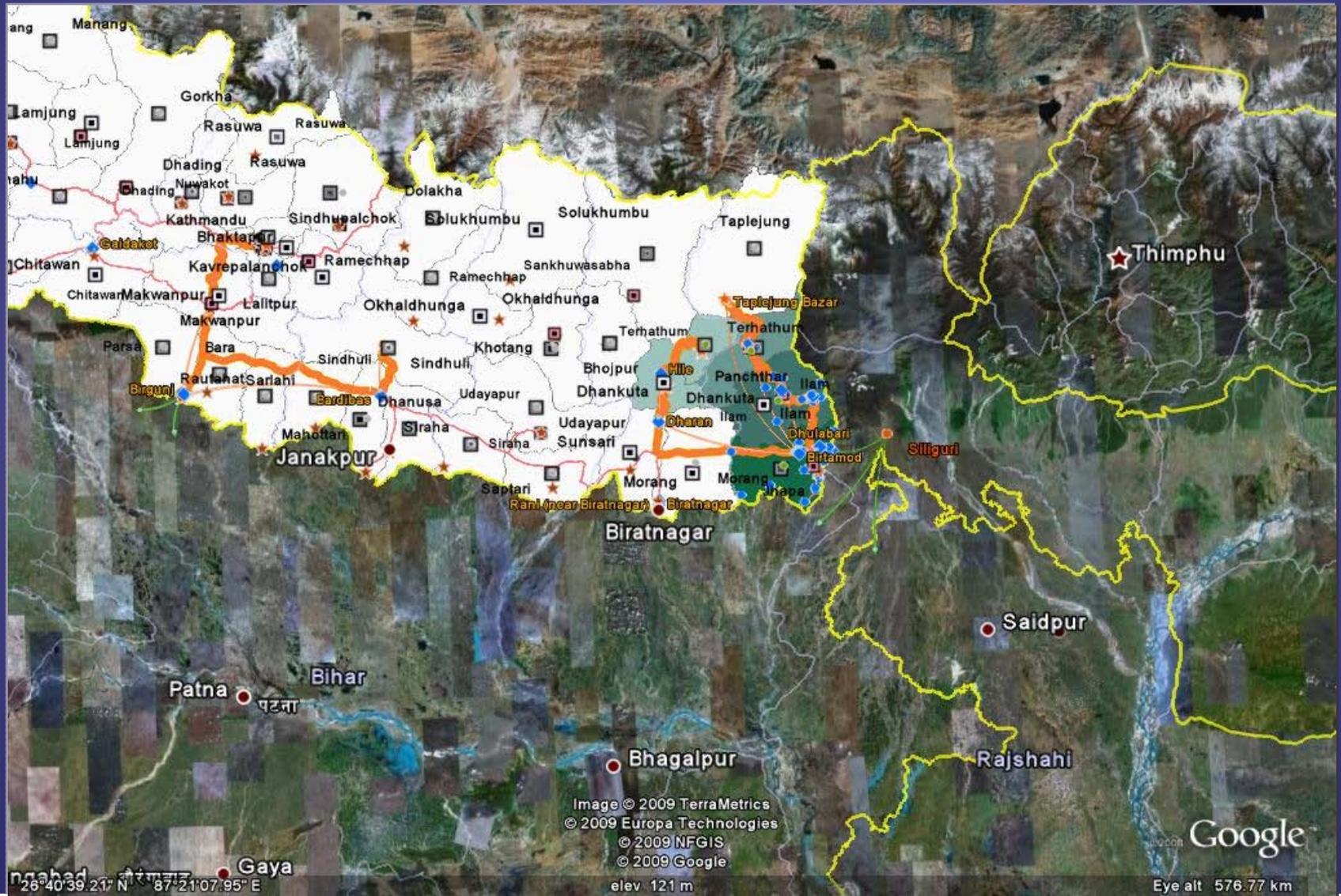
Flexibility

Top-Down



Bottom-Up

GIS Framework for Data Archiving and Analysis



- “Modern technology and society have become so complex that traditional ways and means are not sufficient any more but approaches of a holistic or systems, and generalist or inter-disciplinary nature become necessary.”

– Bertalanffy, Ludwig Von
General System Theory