INTEGRATING PROBLEM-SOLVING INTO WILDLIFE PROTECTION OPERATIONS

AM LEMIEUX PROBLEM-ORIENTED WILDLIFE PROTECTION LEAD RANGER





WE KNOW WE NEED PROBLEM SOLVING... BUT HOW DO WE DO IT?



THE PROBLEMS WITH PROBLEM SOLVING

WEAK
ANALYTIC
CAPACITY

SILENT VICTIMS

EFFORT FOCUSED METRICS

FRAGMENTED
JURISDICTIONS
& MANDATES



THE PROBLEMS WITH PROBLEM SOLVING

WEAK
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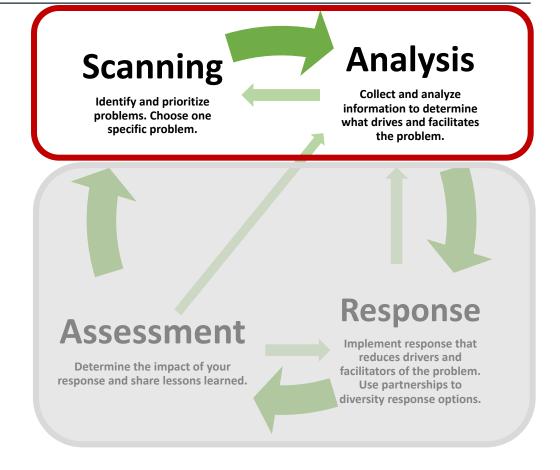
EFFORT FOCUSED METRICS

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WEAK
ANALYTIC
CAPACITY





The SARA Process



DEVELOPMENT PATHWAY







Approach



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REGISTERED REPORT STAGE 1: STUDY DESIGN



What is the evidence that counter-wildlife crime interventions are effective for conserving African, Asian and Latin American wildlife directly threatened by exploitation? A systematic map protocol

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Trina Rytwinski<sup>1</sup> | Siri L. A. Öckerman<sup>1</sup> | Jessica J. Taylor<sup>1</sup> | Joseph R. Bennett<sup>1</sup> | Matthew J. Muir<sup>2</sup> | Jennifer R. B. Miller<sup>3,4</sup> | Amy Pokempner<sup>2</sup> | Wai Yee Lam<sup>5</sup> | Robert S. A. Pickles<sup>5</sup> | Steven J. Cooke<sup>1</sup>
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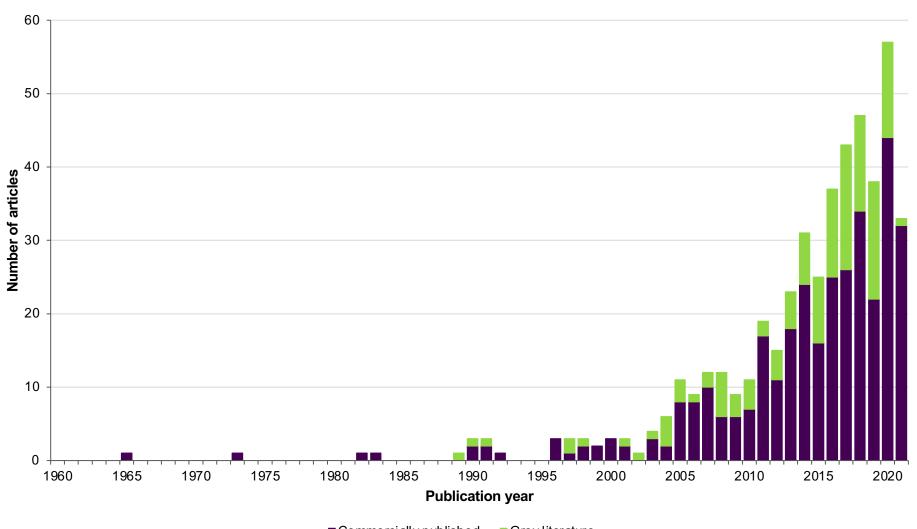
Special thanks to Trina Rytwinski (Center for Evidence-Based Conservation, Carleton University) and Matt Muir (United States Fish & Wildlife Service) for allowing me to share these preliminary results.



Quantity of evidence



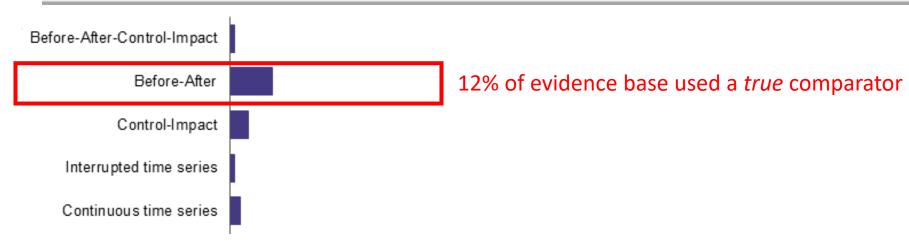
A total of 530 studies from 477 articles were included in the systematic map



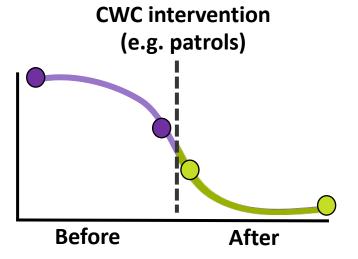


Study designs





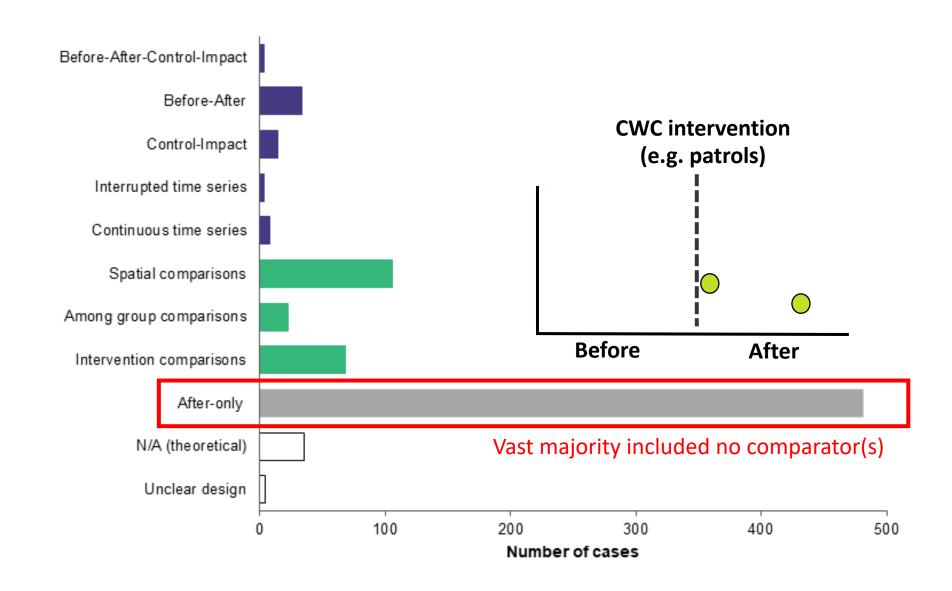
Time





Study designs





Policing Problems







TACKLING ILLEGAL WILDLIFE HUNTING AND TRADE IN INDIA

PROBLEM-ORIENTED WILDLIFE PROTECTION

CASE STUDIES



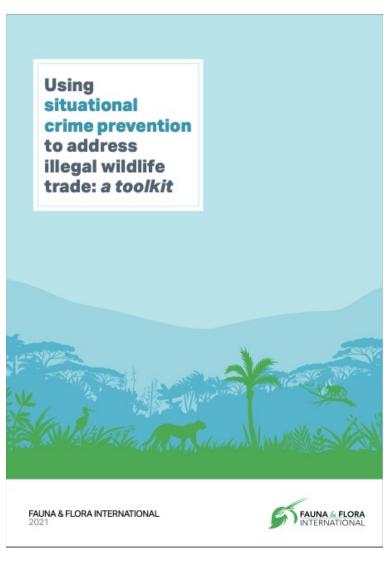
Problem-Oriented Wildlife Protection A.M. Lemieux & R.S.A. Pickles



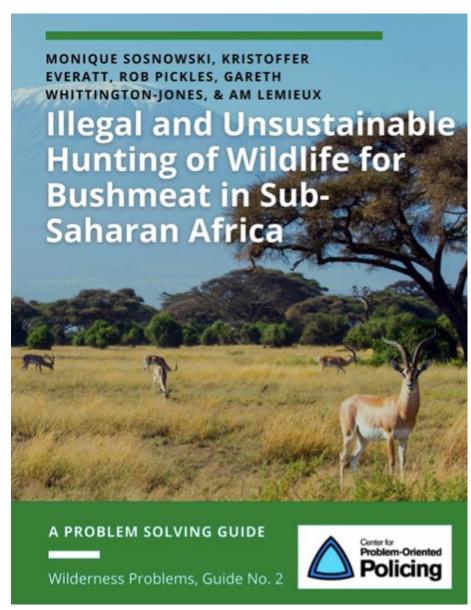


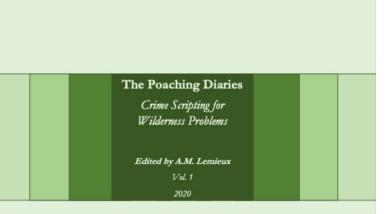


















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PROBLEM ANALYSIS FOR WILDLIFE PROTECTION IN 55 STEPS

READ MORE







RETHINKING HOW WE TEACH SITUATIONAL CRIME PREVENTION



Main Question	Sub-Questions
What makes it easy?	 Why is it easy to attack and remove the target? Why is it easy to access places where the target is? Why aren't people seen or checked after the crime has happened? Why are offenders choosing a specific location? How easy is it to obtain and use the tools needed?
What makes it low-risk?	 Are there potential guardians that are not intervening? Do people see what happens but don't know how to report or respond? Is it easy for offenders to stay anonymous? Are there place managers that look the other way? Are current law enforcement efforts easy to avoid?
What makes it rewarding?	 Is it easy to see find targets quickly? Are the targets concentrated in a specific place? Is it hard to identify the wildlife product and prove it is illegal? Is it easy to sell the product quickly? Is it easy to enjoy the benefits quickly and publicly?
What triggers people into the behaviour?	 Are there specific frustrations or stress that encourage the problem? Is the problem caused by a conflict between wildlife and people? Is there regular exposure to criminal opportunities in people's daily lives? Is there peer pressure or support for the behaviour? Do people imitate the behaviour of others?
How do people excuse their behaviour?	 Are the rules well known? Do the rules change from one setting to the next? Are there signs or warnings in the area to alert people about rules? Is it hard to follow the rules? Are offenders intoxicated during the event? Or drug dependent?

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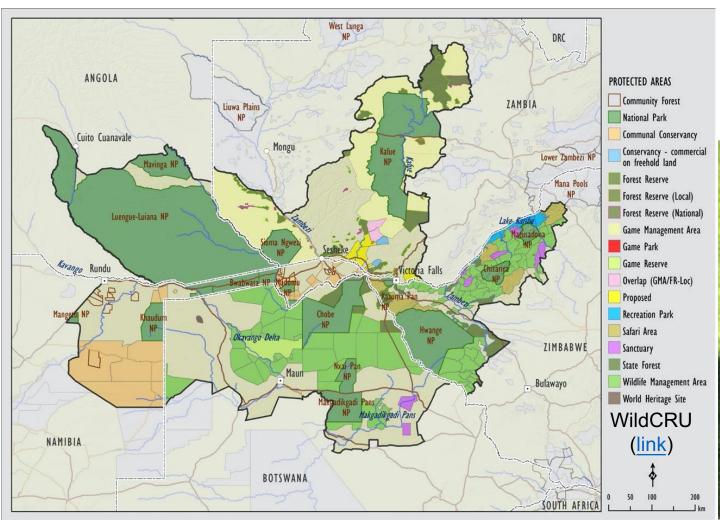
SILENT VICTIMS

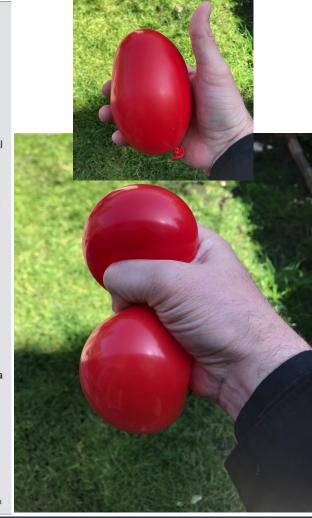
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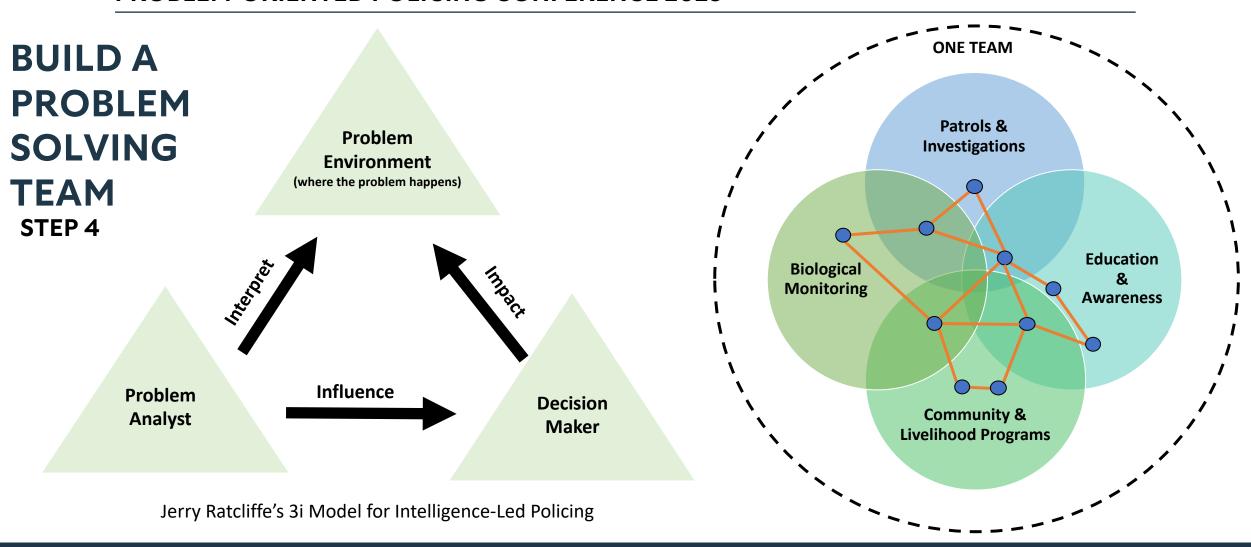


FRAGMENTED
JURISDICTIONS
AND MANDATES

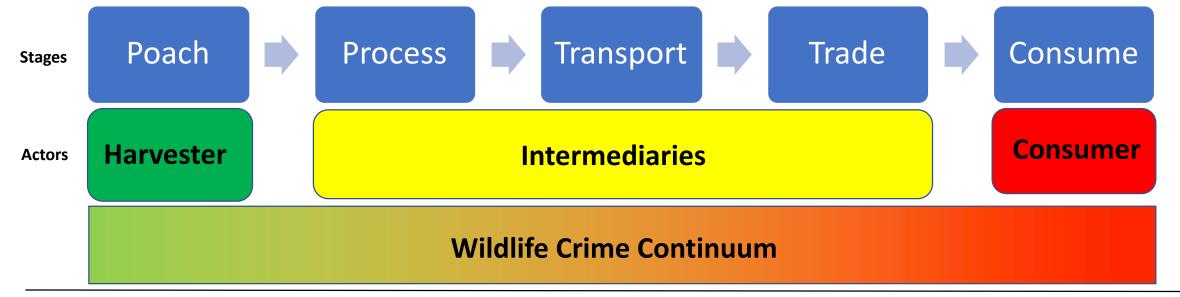












How does the product get from harvesters to consumers?

Hunter kills rhino and removes horn.





Local network leader arranges weapons and transport.



Protected area insider provides information about rhino and patrol movements.

Regional trader collects horn from hunter and exports via air cargo.





Shipping company prepares forged paperwork for shipment.

International broker arranges contact between regional trader and international buyer.

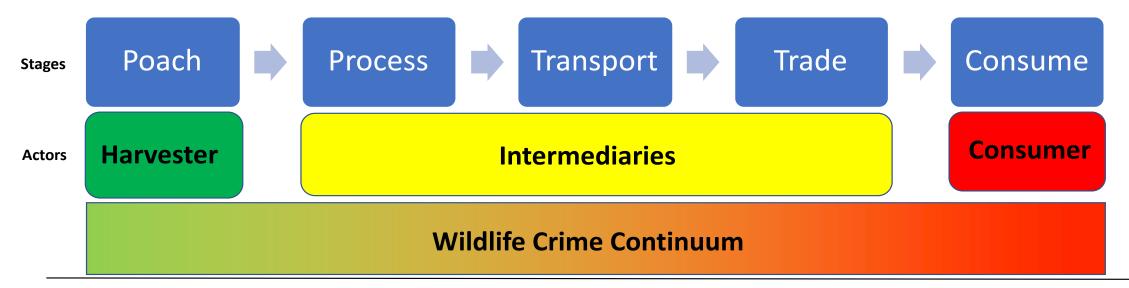


Foreign buyer receives rhino horn shipment.

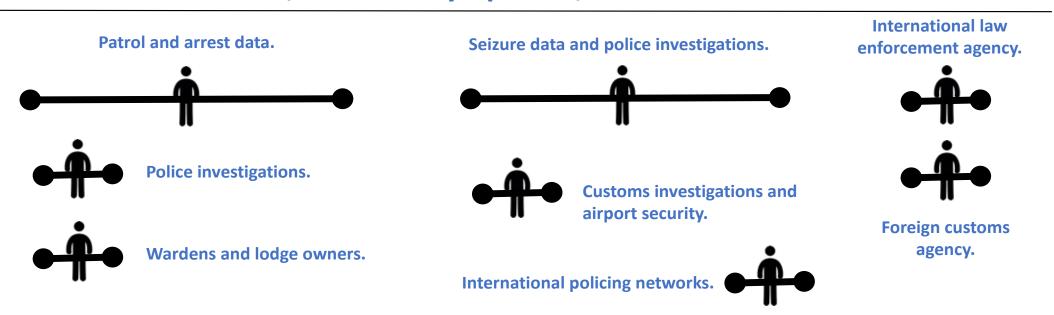




Customs official ensures shipment is not searched upon arrival.



Where could you find information about the different individuals involved, where they operate, and their methods?



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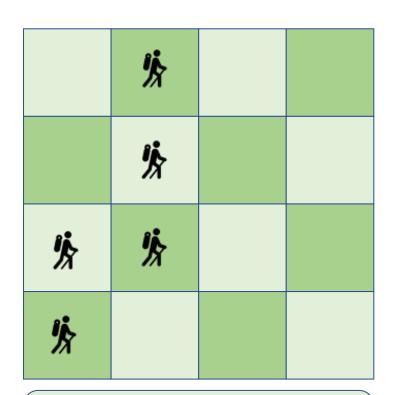
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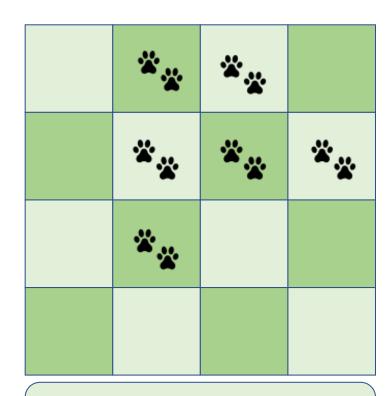
THE SILENT **VICTIM PROBLEM** TRIPLE **FORAGING**

STEP 18



RANGERS FORAGE FOR HARVESTERS

Rangers look for harvesters and signs of harvesters in the landscape.



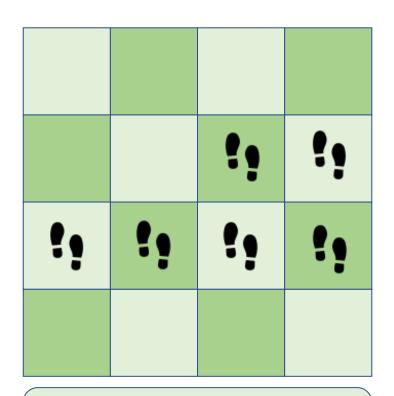
WILDLIFE FORAGE FOR FOOD

Wildlife looks for suitable habitat and nutrtion in the landscape.



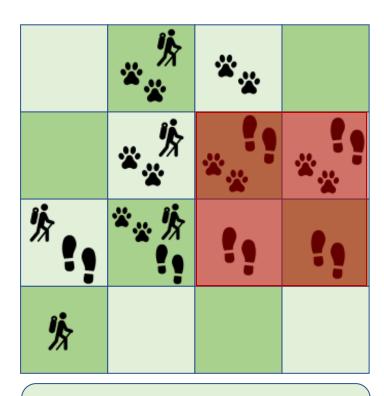
THE SILENT **VICTIM PROBLEM** TRIPLE **FORAGING**

STEP 18



HARVESTERS FORAGE FOR WILDLIFE

Harvesters look for opportunities to take wildlife in the landscape.



TRIPLE FORAGING

The overlap of wildlife, harvesters, and rangers in the landscape.



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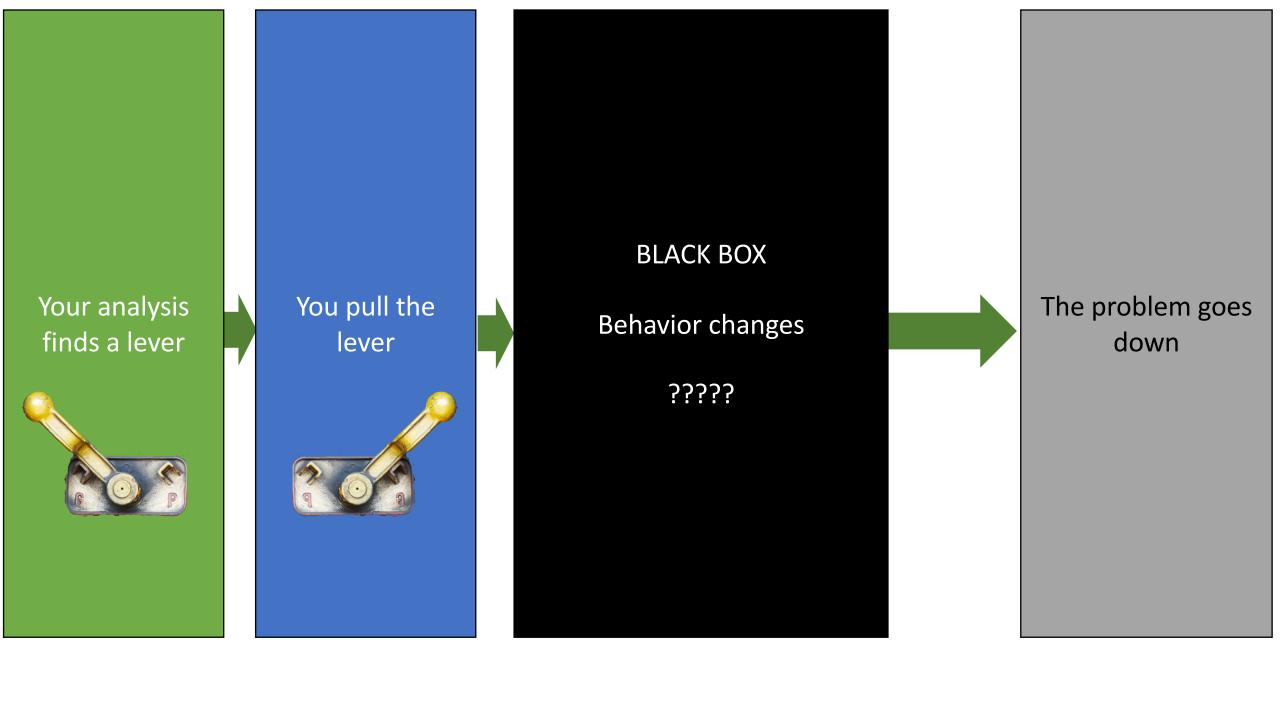
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HOW DO YOU DEFINE MEANINGFUL METRICS? Use indicator maps Step 39





How will the intervention disrupt hunters?

Hunters will have less time to participate in hunting activities during their treatment

Income needed to buy drugs decreases, resulting in fewer hunting trips

Deaths of deer in snares decreases

Hunters have more livelihood opportunities as they progress through treatment

Potential intervention

Offering
substance
abuse services
and counselling
to hunters will
reduce their
need for drug
money



Established from

your analysis

Hunters are

driven by a

need for

income to

support meth

addiction

Find lever



Pull lever

EVEN WHEN YOU PULL TWO LEVERS...



Hunters are driven by a need for income to support methamphetamine addiction

Offering substance abuse services and counselling to hunters will reduce their need for drug money

Hunters operate
throughout the year and
their snares are
concentrated in one
sector of the park

Focused patrolling in sector to increase encounters with hunters and their traps



BLACK BOX

Behavior changes

>>>>>

Deaths of deer in snares decreases

Indicators

- 1. Fewer snares & kill sites found by patrol teams
- 2. Snares discovered are old or abandoned
- 3. Deer meat becomes less common in local markets
- 4. Population density increases over time

THESE STAY
THE SAME

A WORD OF THANKS



FOOD FOR THOUGHT

- •HOW DO YOU CHANGE KEY PERFORMANCE INDICATORS (KPIs) TO PROMOTE PROBLEM-SOLVING?
- •HOW DO YOU MEASURE THE SIZE OF YOUR PROBLEM WHEN REPORTING IS LOW?
- •HOW DO YOU DEVELOP TRUST ACROSS ORGANIZATIONS TO FACILITATE PROBLEM-SOLVING?
- •HOW DO YOU TRAIN A PROBLEM-SOLVING ANALYST?
- •ARE THERE EXAMPLES OF INTERNATIONAL PROBLEM-SOLVING TEAMS?
- •HOW DO YOU PRIORITIZE REPONSES BEFORE IMPLEMENTATION?
- •HOW DO YOU MOVE FROM PILOTING POP TO FULL-BLOWN UPTAKE?



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