

ADAPTATION OUTCOMES OF NATURE-BASED SOLUTIONS

Camila Donatti, PhD

CONSERVATION
INTERNATIONAL



conservation.org/Eb

A

NATURE-BASED SOLUTIONS

Actions to protect, sustainably manage, and restore natural or modified ecosystems, that address societal challenges related to **climate change**, providing **human wellbeing** and **biodiversity benefits**

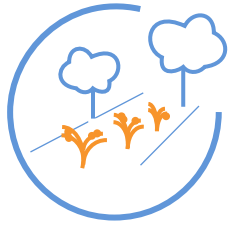


PRESENTATION HIGHLIGHTS

1. Adaptation outcomes that can be achieved through nature-based solutions
2. Suggested indicators to track those outcomes
3. Examples of how indicators can be implemented



ADAPTATION OUTCOMES FROM NATURE-BASED SOLUTIONS



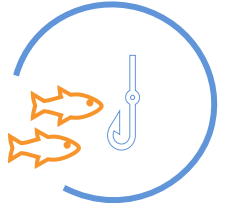
FOOD
SECURITY

Adaptation actions can reduce the impacts of climate change on food security



DISASTER-RISK REDUCTION

Adaptation actions can reduce the risk of disasters from climate change



LIVELIHOOD
MAINTENANCE

Adaptation actions can maintain livelihoods under climate change



HUMAN HEALTH AND
SECURITY

Adaptation actions can improve human health and security disrupted by climate change

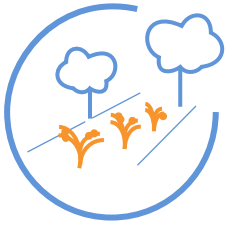


WATER SECURITY

Adaptation actions can reduce the negative impacts of climate change on water provision



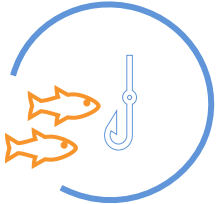
WHICH INDICATORS CAN BE USED TO TRACK THOSE OUTCOMES?



FOOD
SECURITY



DISASTER-RISK REDUCTION



LIVELIHOOD
MAINTENANCE



HUMAN HEALTH AND
SECURITY

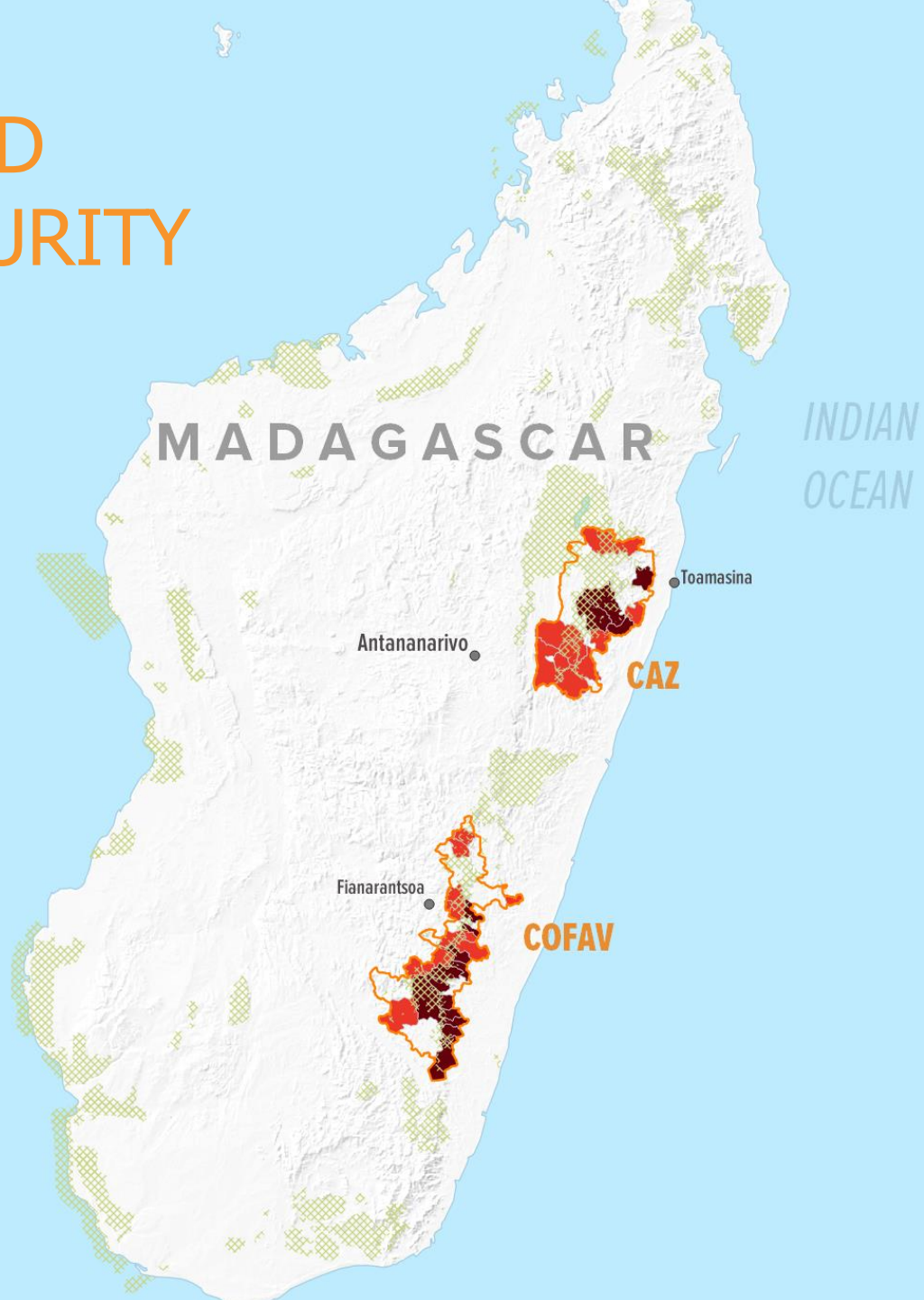


WATER SECURITY

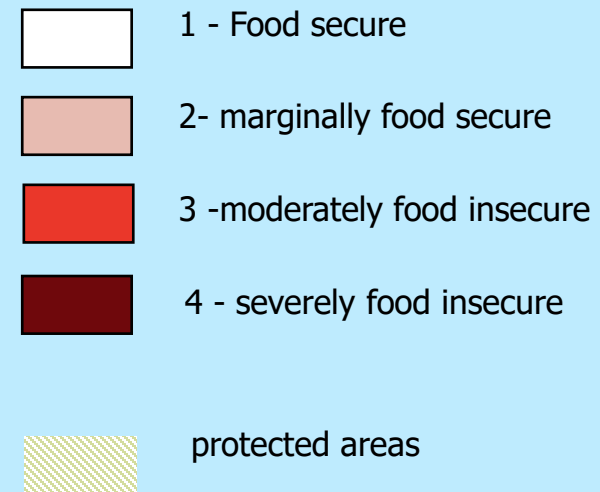




	Suggestion 1	Suggestion 2	Suggestion 3
Indicators	Number of meals	Consumption of specific items	Food security
Metrics	Meals (#/day)	Days eating specific items (#item X in month X)	Food security index
Frequency of data collection	Before and after the implementation of the adaptation intervention or project		



Food Security Index by municipality (2019)





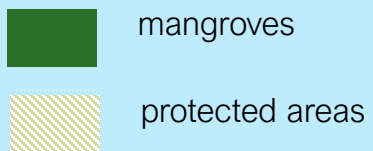
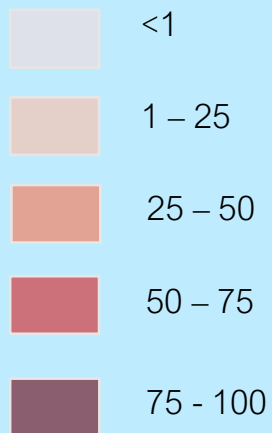
DISASTER-RISK REDUCTION

	Suggestion 1	Suggestion 2	Suggestion 3
Indicators	Biophysical variable (e.g hillside erosion, coastal erosion, flooding)	Perception of damages to assets due to an extreme weather event	Damages to assets (and monetary value) due to an extreme weather
Metrics	Volume of soil eroded (cubic m.), area flooded	Perception of damages to assets and infrastructure (% of people)	Assets and infrastructure damaged, value of damages (number and value)
Frequency of data collection	After extreme events, before and after the implementation of the intervention or project		

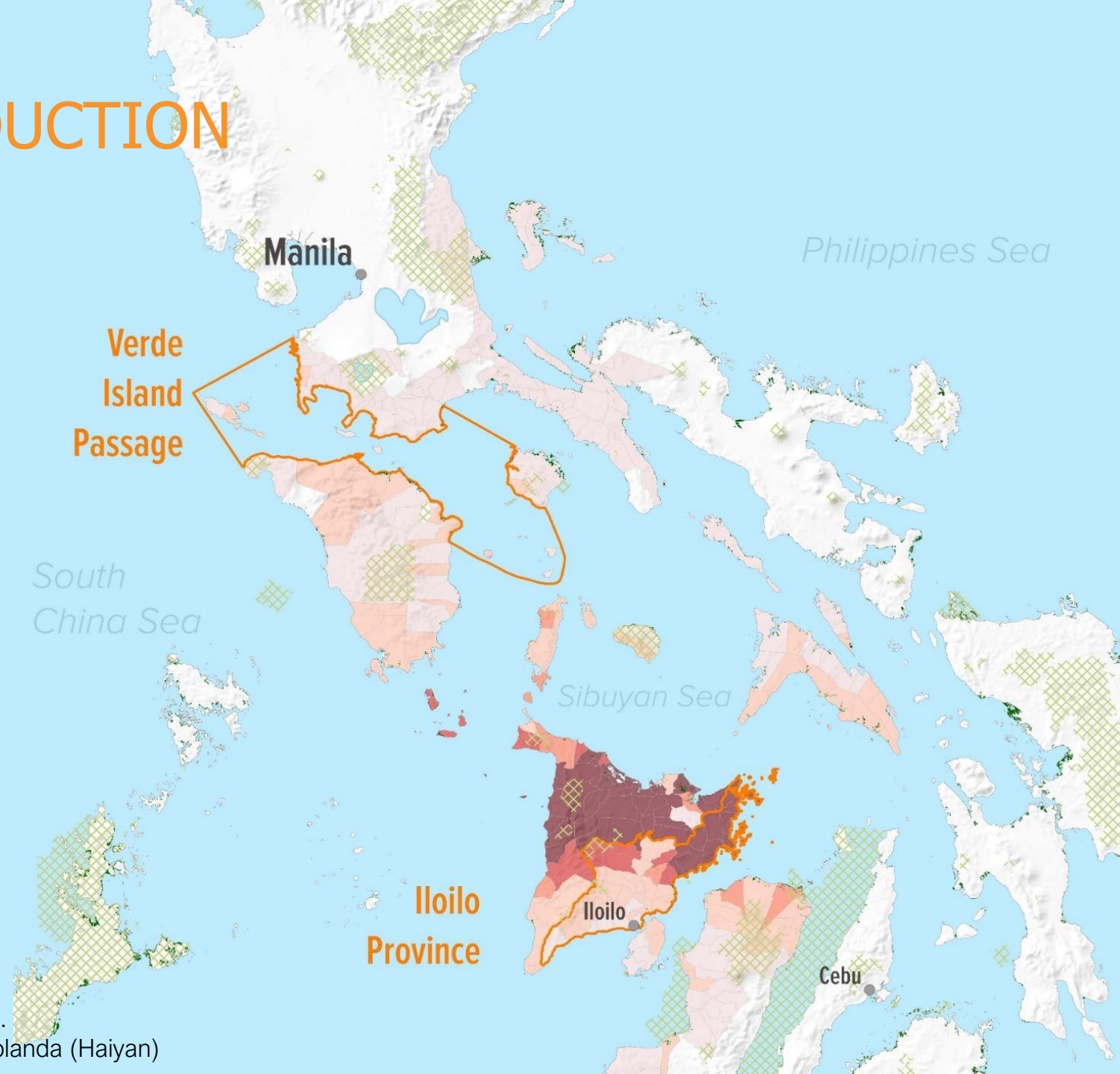


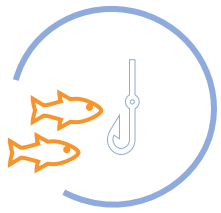
DISASTER-RISK REDUCTION

Damaged houses by Typhoon Haiyan per municipality (%)



National disaster risk reduction management. 2013.
Data based on Final Report re Effects of typhoon Yolanda (Haiyan)



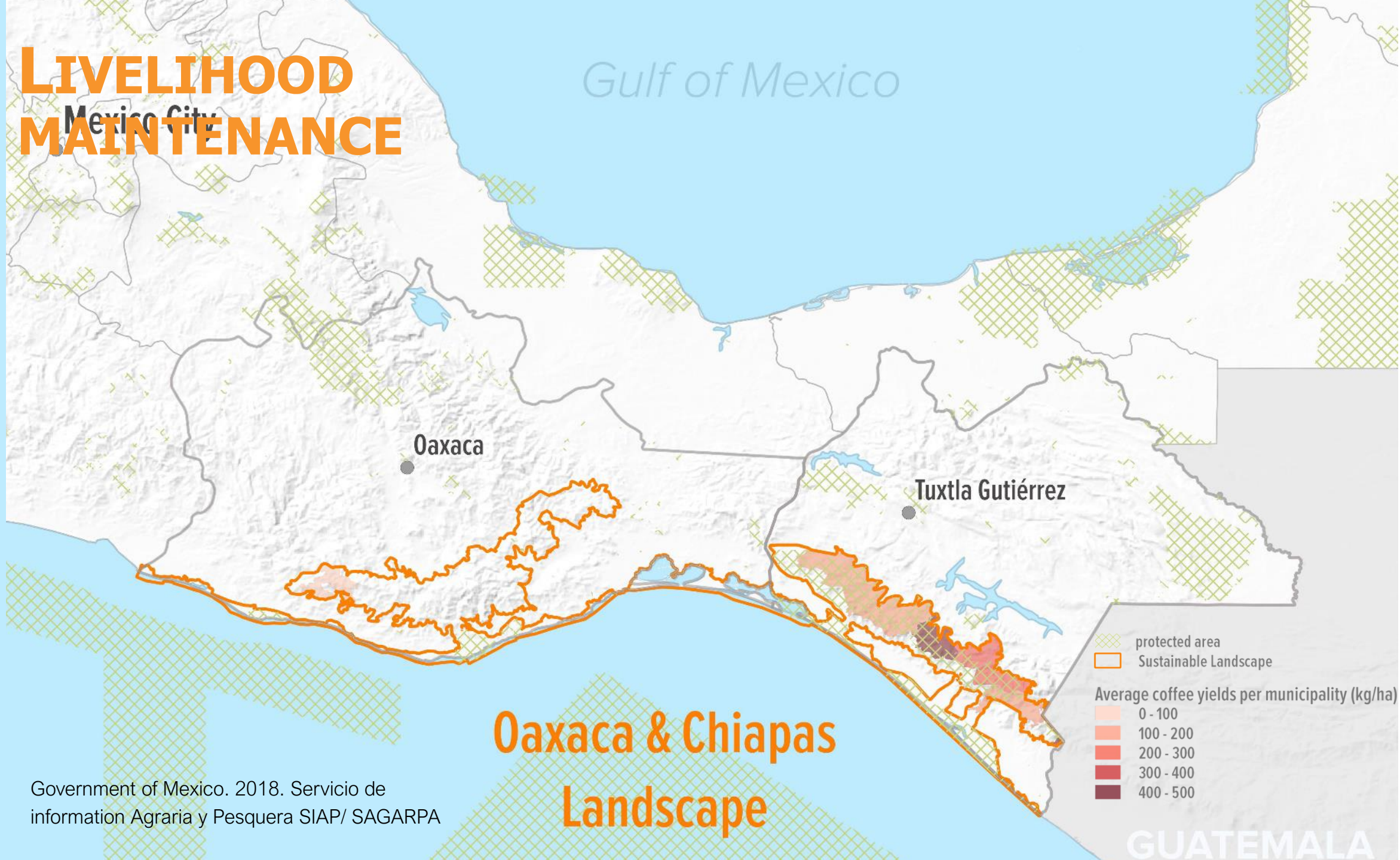


LIVELIHOOD MAINTENANCE

	Suggestion 1	Suggestion 2	Suggestion 3
Indicators	Productivity or yields per area and season	Income	Income from sustainable sources
Metrics	Crop productivity or yield (kg/ha)	Average monthly income (\$/month)	Average monthly income from sustainable sources (\$/month)
Frequency of data collection	Dry season, before and after the implementation of the adaptation action		



LIVELIHOOD MAINTENANCE



Government of Mexico. 2018. Servicio de
information Agraria y Pesquera SIAP/ SAGARPA



WATER SECURITY

	Suggestion 1	Suggestion 2	Suggestion 3
Indicators	Water flow	Per capita access to water	Water security index
Metrics	River flow (m ³ /s)	Assess to water source (e.g. minutes walking)	Water security index
Frequency of data collection	After extreme events, before and after the implementation of the intervention or project		



WATER SECURITY

Average water flow per watershed (m^3/s)

14-100

100-200

200-300

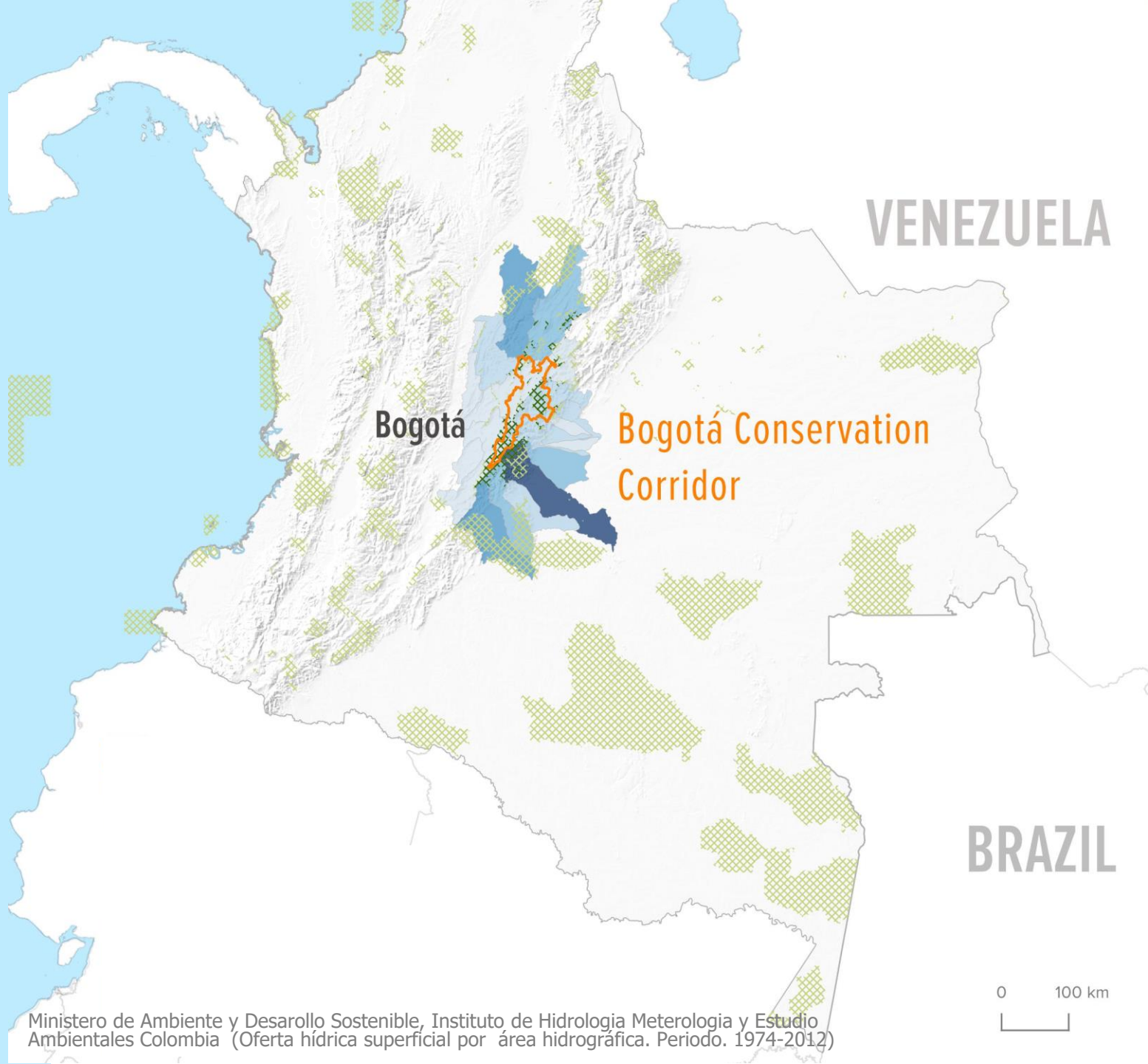
300-400

400-500

500-513

protected areas

Paramos





HUMAN HEALTH AND SECURITY

	Suggestion 1	Suggestion 2	Suggestion 3
Indicators	Perceived frequency local (human-human and human-wildlife) conflicts	Frequency of local conflicts over natural resources	Changes in the number of deaths and injuries resultant from conflicts over natural resources
Metrics	Perceived frequency of conflicts (#)	Frequency of conflicts (#/year)	People dead or injured or animals dead/stolen (#)
Frequency of data collection	After extreme events, before and after the implementation of the intervention or project		

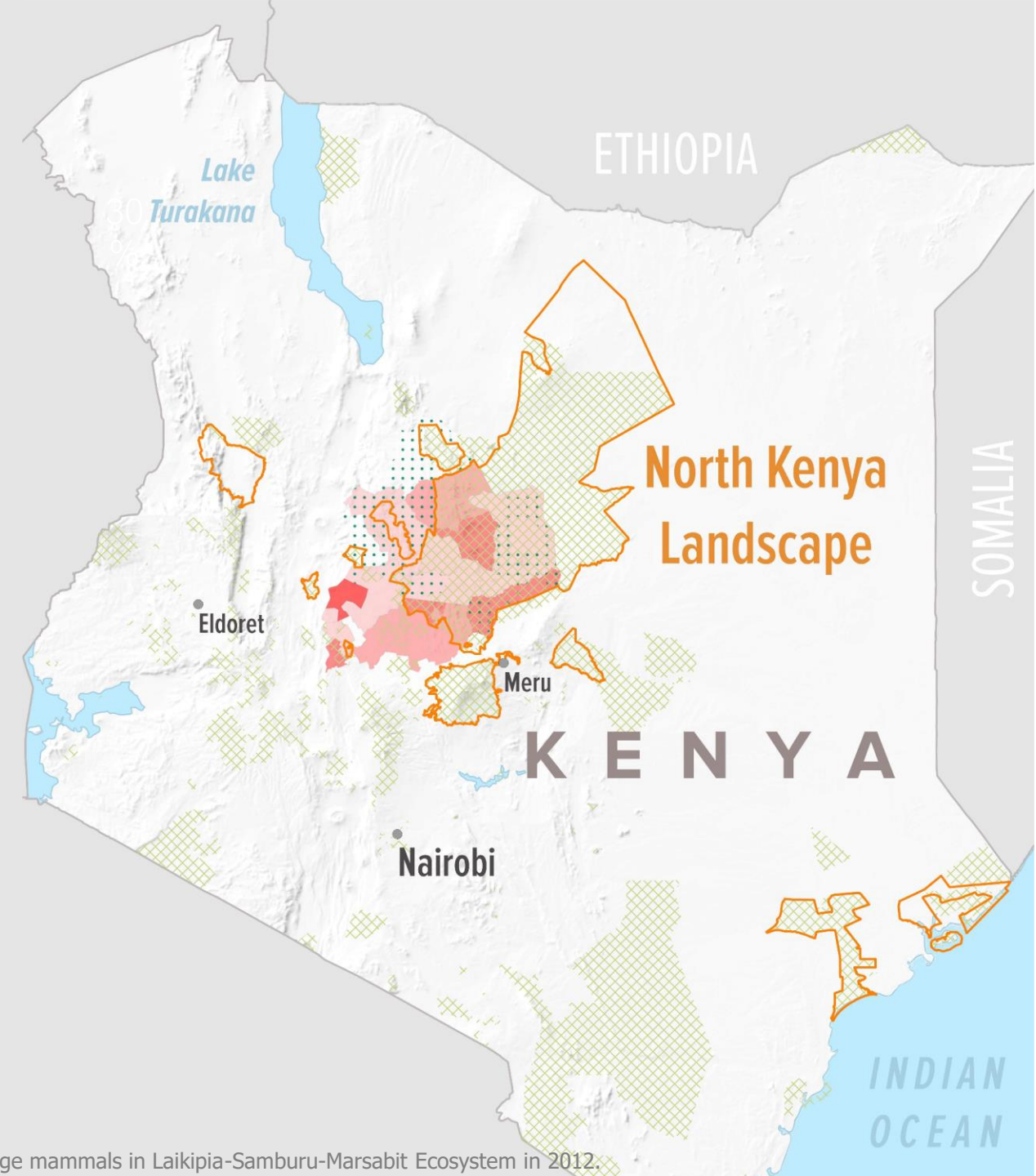


HUMAN HEALTH AND SECURITY

-  Sustainable Landscape
-  Protected Area or Conservancy
-  Communal Rangelands

Elephants casualties 2011-12 per Location (#/km²)

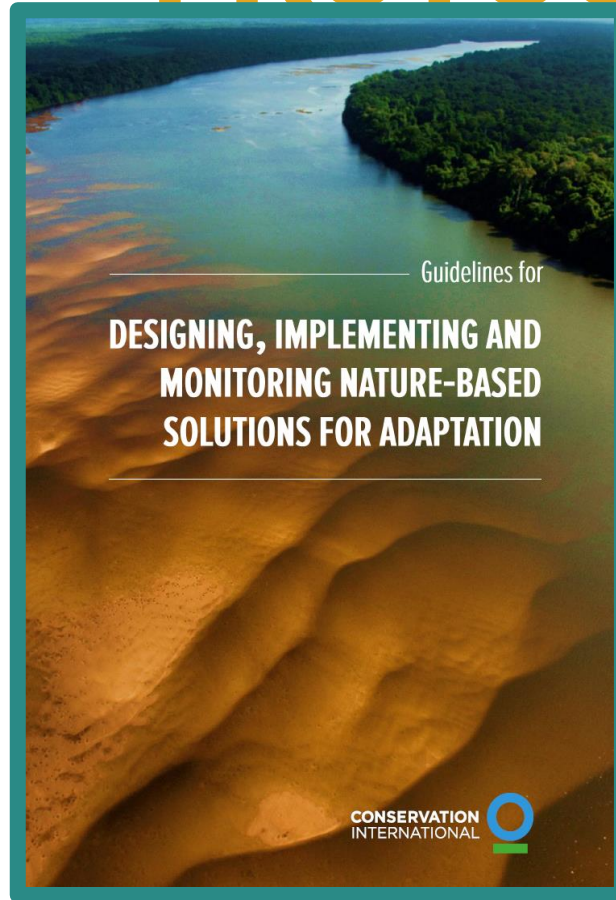
-  0 - 0.01
-  0.01 - 0.03
-  0.03 - 0.08
-  0.08 - 0.12



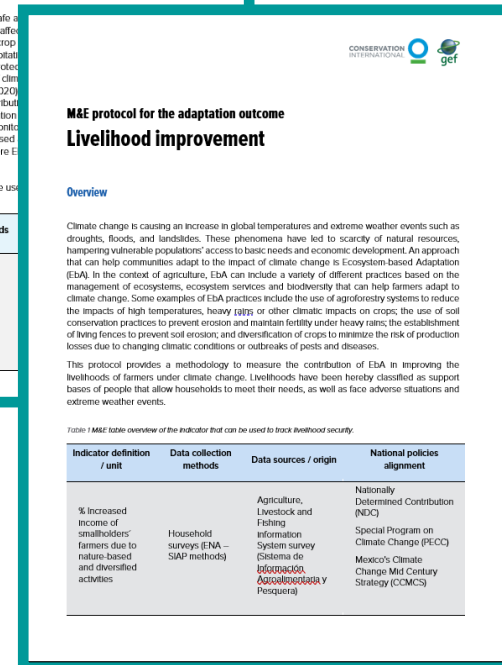
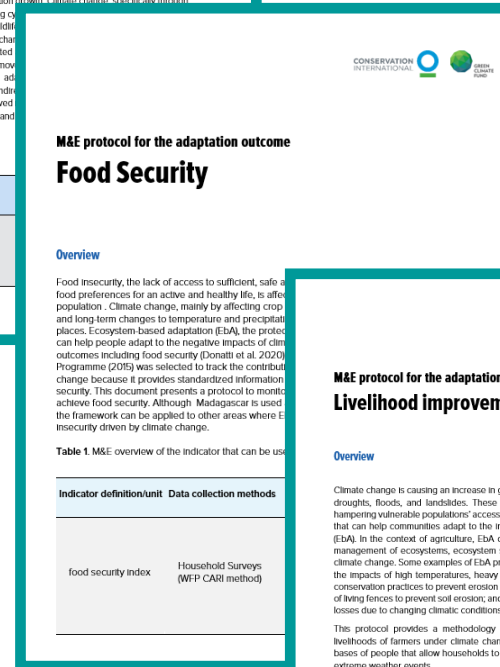
GENERAL RECOMMENDATIONS

- Key to have a **baseline**, the first datapoint of data collection prior to implementation of adaptation action;
- **Frequency of data collection** depends on the parameter being monitored and data availability;
- Essential to identify **Targets** to evaluate whether an outcome has been achieved with the implementation of the adaptation action
(e.g. 30% reduction in the loss of assets due to flooding events, compared to baseline);

GUIDEBOOKS AND M&E PROTOCOLS



Also available in Spanish!



Dr. Camila Donatti

cdonatti@conservation.org

www.conservation.org/EbA

CONSERVATION
INTERNATIONAL

