

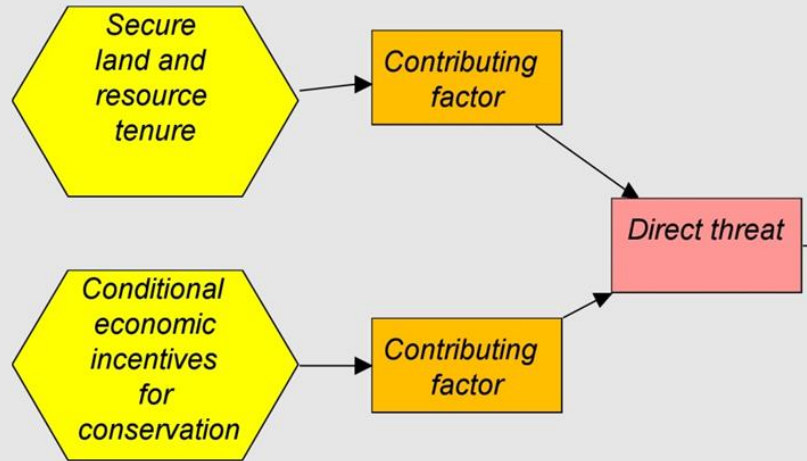
REDD & Livelihoods



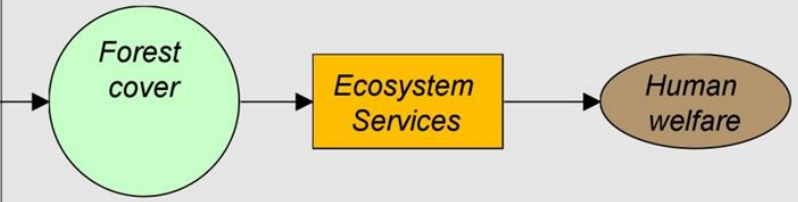
Why REDD projects should measure livelihood impacts

Do people benefit from REDD?

Human livelihoods as a means to an end

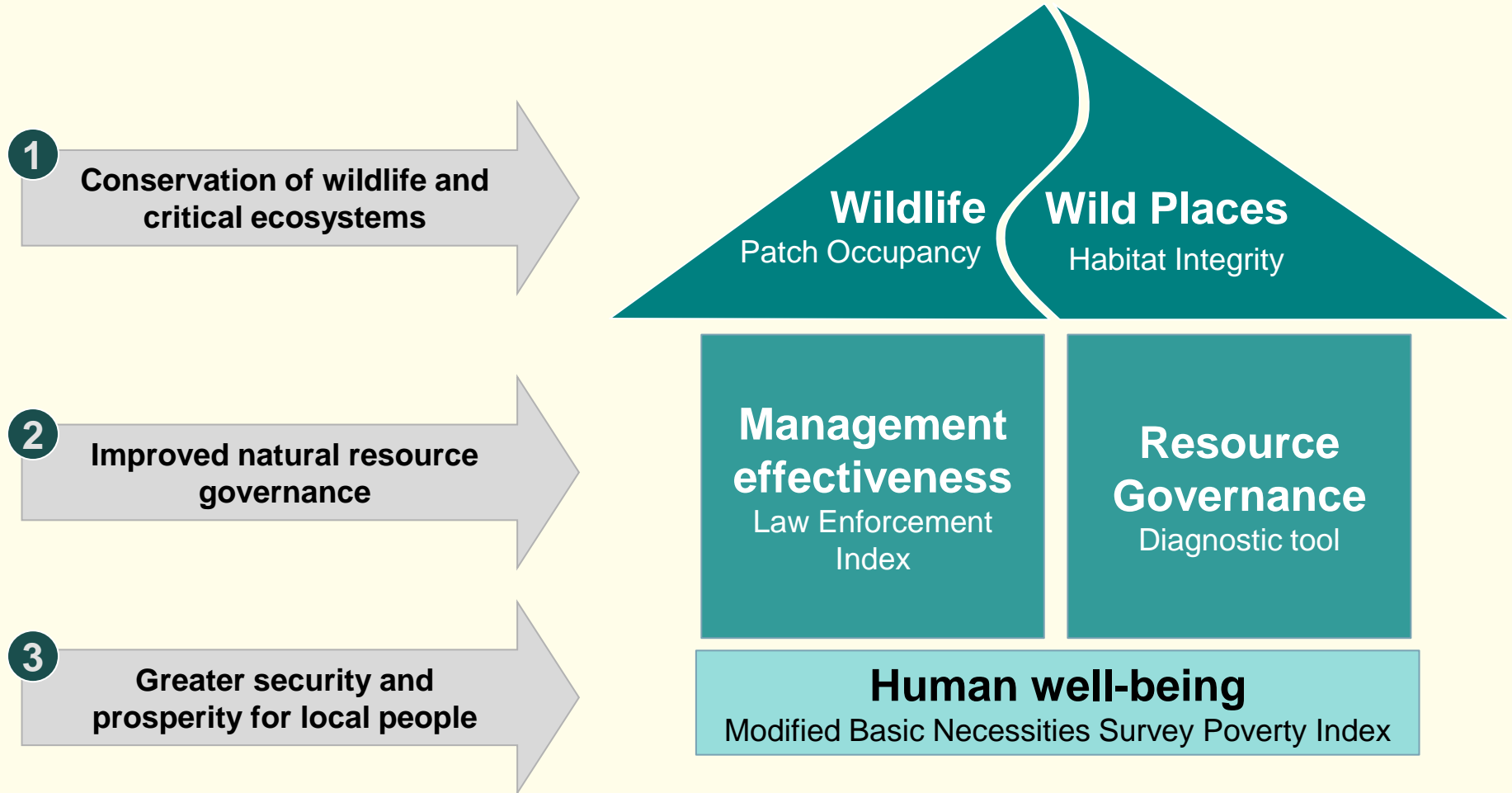


Human livelihoods as a consequence of attaining a conservation objective

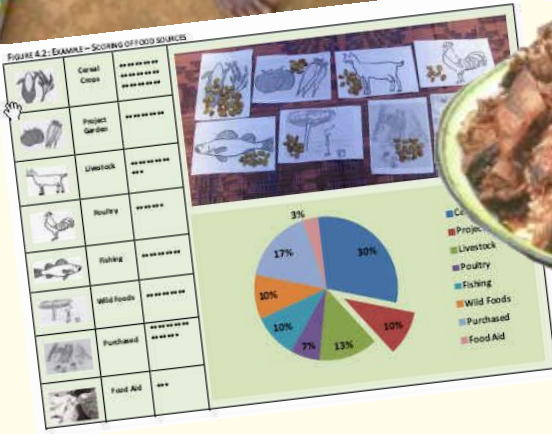
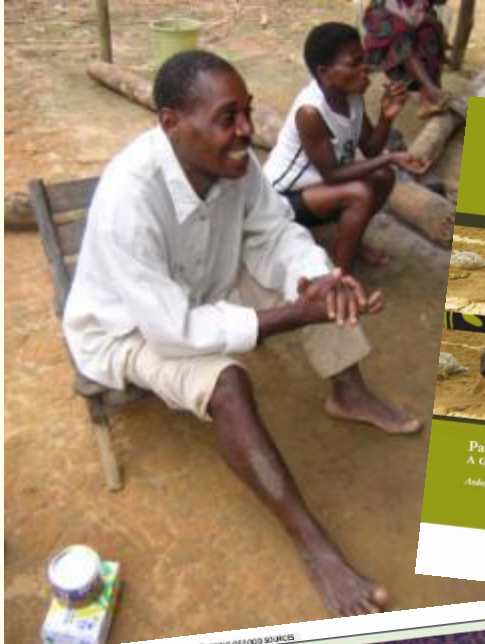




Measuring impacts at WCS



Lots of ways to measure





Parks and People Gabon



Counterfactuals

ParksAndPeopleResearchDatabaseStructure: Database (Access 2000 file format)

Objects

- Tables
 - tbl_BasketGoods
 - tbl_CommercialActivities
 - tbl_DataDictionary
 - tbl_Deaths
 - tbl_Demography
 - tbl_EthnicityIntensive
 - tbl_VillageList
 - tbl_WeeklySales
 - tbl_YearlySales
 - tbl_Activities
 - tbl_AreaAtTime
- Queries
 - tbl_BasketGoods
 - tbl_CauseOfDeath
 - tbl_Clinics
 - tbl_ConsumedItems
 - tbl_Education
 - tbl_Electric
 - tbl_Ethnic
 - tbl_Flor
 - tbl_F
- Forms
 - tbl_TableList
 - tbl_Toilet
 - tbl_VillageAdminCategories
 - tbl_VillageTypes
 - tbl_WallTypes
 - tbl_WaterSources
 - tbl_WeeklyItems
 - tbl_WeeklyItems
- Reports

tbl_BasketGoods

Item	Quantity	Unit Price	Total Value
...

tbl_ConsumedItems

Item	Quantity	Unit Price	Total Value
...

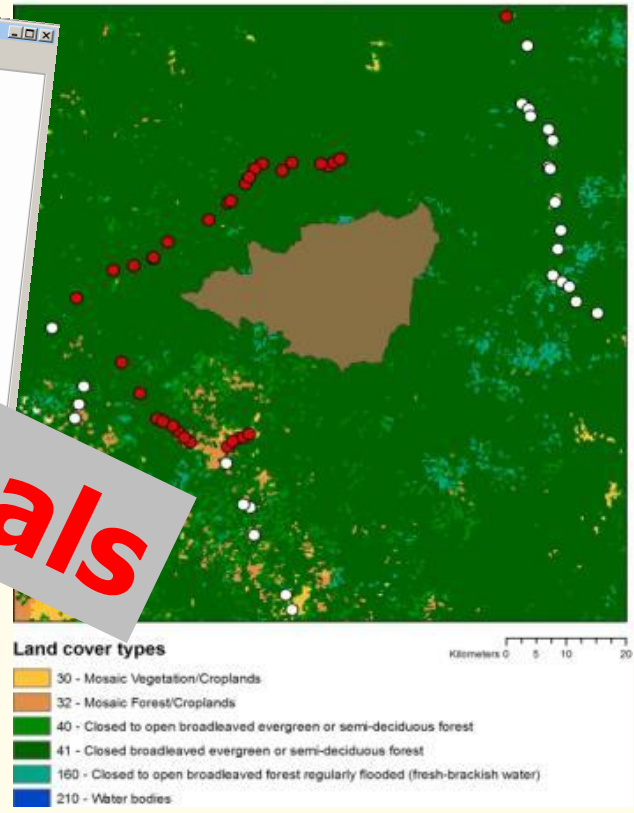
tbl_VillageList

Village Name	Area (km²)	Population	Year
...

tbl_WeeklyItems

Item	Quantity	Unit Price	Total Value
...

Land cover at Birougou, Park & Control Villages



Before-After-Control-Intervention

Livelihoods and conservation

UN defines poverty
as
“ A lack of basic
necessities”



The Basic Necessities Survey

- Poverty defined by local perceptions
- Focus groups to determine assets and services considered basic necessities
 - Something that all households should have
 - And none should do without





Basic Necessities Survey

Cambodia – source WCS Cambodia

Asset/Services	Item
Asset	Agricultural equipment
Asset	Bicycle
Asset	Car battery or electricity
Asset	Draught animal
Asset	Hammock
Asset	Icebox
Asset	Jerry Can 30l
Asset	Mattress
Asset	Mini tractor (iron buffalo)
Asset	Mobile phone
Asset	Mosquito net
Asset	Motorbike
Asset	Pigs
Asset	Radio
Asset	Shoes
Asset	Tin Roof - & other types of better roof (fibro, tile, cement)
Asset	Tractor
Asset	TV/video/karaoke
Asset	Wardrobe
Asset	Watch
Asset	Water jar
Service	Able to visit a Wat (temple)
Service	Able to walk to the doctor
Service	Access to credit
Service	Access to electricity
Service	All school age kids in school
Service	Distance to main road
Service	Money to send kids to secondary or high school
Service	Pay for a party
Service	Road open all year
Service	Trader visits every week
Service	Wage labour
Service	Water in the house

- Asset and services list drawn from several focus groups in several villages with differing household wealth



Survey is easy

Asset or Service	Item	Have now Yes=1, No=0	Are Necessities Yes=1, No=0
Asset	1 sjo of land per person	0	1
Asset	Electric light	1	1
Asset	Bicycle	1	0
Asset	Concrete rice drying yard	1	0
Asset	Wooden rice chest	1	1
Service	3 meals a day	1	1
Asset	Buffalo or cow	0	1
Service	All children studying up to level 2	0	1
Asset	Well with well head	0	1
Asset	Stone built house	0	0
Asset	Thick cotton blanket	1	1
Service	Doctor visiting the house when sick	1	1
Asset	Electric fan	0	0
Service	A new set of clothes each year	1	1
Service	Livestock vaccination	0	0
Service	Meat once a week	0	1
Asset	Pesticide pump	0	0
Asset	Watch	0	0
Service	Access to loans	0	1
Asset	Radio	0	0
Asset	Toilet - built of stone	0	1
Asset	Table made of good wood	1	1
Asset	Two compartment wooden wardrobe	0	0
Asset	TV	0	0
Asset	Bathroom	0	0
Motorbike	Motorbike	0	0

- For each item you simply ask – do you have it, and is it a basic necessity



Survey is easy

Asset or Service	Item	Have now Yes=1, No=0	Are Necessities Yes=1, No=0	How many do you own?	Price in the village for each item	Total value of owned assets
Asset	1 sjo of land per person	0	1			0
Asset	Electric light	1	1	2	10	20
Asset	Bicycle	1	0	1	500	500
Asset	Concrete rice drying yard	1	0	1	1500	1500
Asset	Wooden rice chest	1	1	1	200	200
Service	3 meals a day	1	1			0
Asset	Buffalo or cow	0	1			0
Service	All children studying up to level 2	0	1			0
Asset	Well with well head	0	1			0
Asset	Stone built house	0	0			0
Asset	Thick cotton blanket	1	1			0
Service	Doctor visiting the house when sick	1	1			0
Asset	Electric fan	0	0			0
Service	A new set of clothes each year	1	1			0
Service	Livestock vaccination	0	0			0
Service	Meat once a week	0	1			0
Asset	Pesticide pump	0	0			0
Asset	Watch	0	0			0
Service	Access to loans	0	1			0
Asset	Radio	0	0			0
Asset	Toilet - built of stone	0	1			0
Asset	Table made of good wood	1	1	1	800	800
Asset	Two compartment wooden wardrobe	0	0			0
Asset	TV	0	0			0
Asset	Bathroom	0	0			0
Motorbike	Motorbike	0	0			0

Total assets 3020

- For each item you simply ask – do you have it, and is it a basic necessity
- We also ask the village price of owned assets to derive the value of a basket of assets
 - Allows differentiation of families at or above the poverty line



Locally defined poverty

Items	# who consider necessity	% consider necessity
1 sjo of land per person	418	99.5%
Electric light	418	99.5%
Bicycle	418	99.5%
Concrete rice drying yard	415	98.8%
Wooden rice chest	414	98.6%
3 meals a day	413	98.3%
Buffalo or cow	412	98.1%
All children studying up to level 2	412	98.1%
Well with well head	411	97.9%
Stone built house	410	97.6%
Thick cotton blanket	408	97.1%
Doctor visiting the house when sick	399	95.0%
Electric fan	391	93.1%
A new set of clothes each year	388	92.4%
Livestock vaccination	386	91.9%
Meat once a week	350	83.3%
Pesticide pump	336	80.0%
Watch	325	77.4%
Access to loans	322	76.7%
Radio	312	74.3%
Toilet - built of stone	188	44.8%
Table made of good wood	175	41.7%
Two compartment wooden wardrobe	135	32.1%
TV	88	21.0%
Bathroom	78	18.6%
Motorbike	32	7.6%

- If 50% of subjects say an asset or service is a basic necessity then by local definition it is needed by all families
- Any household that does not have all basic necessities is below the locally defined poverty line.

NB: Items not considered a necessity by at least 50% of subjects are by definition not basic necessities and are marked in yellow



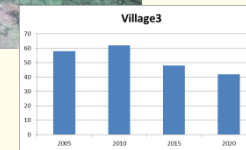
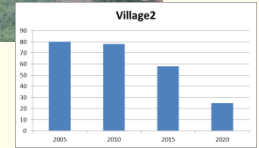
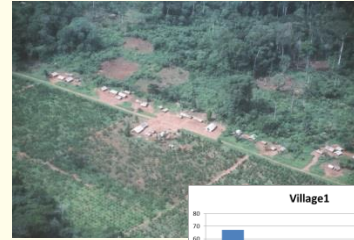
Family in poverty

Basic Necessities	Have now Yes=1, No=0	Weighting	Poverty score
1 sµo of land per person	0	0.995	0.000
Electric light	1	0.995	0.995
Bicycle	1	0.995	0.995
Concrete rice drying yard	1	0.988	0.988
Wooden rice chest	1	0.986	0.986
3 meals a day	1	0.983	0.983
Buffalo or cow	0	0.981	0.000
All children studying up to level 2	0	0.981	0.000
Well with well head	0	0.979	0.000
Stone built house	0	0.976	0.000
Thick cotton blanket	1	0.971	0.971
Doctor visiting the house when sick	1	0.950	0.950
Electric fan	0	0.931	0.000
A new set of clothes each year	1	0.924	0.924
Livestock vaccination	0	0.919	0.000
Meat once a week	0	0.833	0.000
Pesticide pump	0	0.800	0.000
Watch	0	0.774	0.000
Access to loans	0	0.767	0.000
Radio	0	0.743	0.000
	Maximum score	18	=Sum(D2:D21)
	Poverty score	7.793	=Sum(E2:E21)
	Poverty index	43.29%	=C24/C23

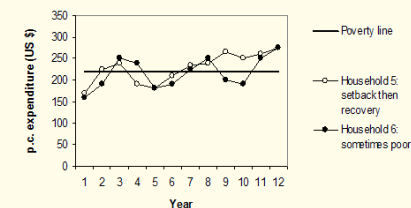
- This family does not own about half of the basic necessities and thus is considered well below the poverty line

BNS results

- Household level poverty and wealth assessment
- % villages below poverty line
- 85% correlation to WB income and wealth
- Easy to track changes over time



"Setback then recovery" and "Sometimes poor"





BNS plus plus

- Can include other assets and services not listed during focal groups but of interest to you or your donor
- These would be analysed both together and separately from the community list
- Examples include
 - Do you have access to wildlife as food
 - Are you employed by the community logging concession
 - Do you have a stand pipe for water in your village
 - Do the police protect you from cattle rustlers



Governance diagnostic tool



GUIDELINES FOR ASSESSING THE STRENGTHS AND WEAKNESSES OF NATURAL RESOURCE GOVERNANCE IN LANDSCAPES AND SEASCAPES

