

Increasing Community Resilience For Food Security

*Recommended goal after a territorial assessment was
conducted in Tinoc from 2008-2010*

IPSI 7th GA

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Ecosystems based approach - first step we took was to assess the different ecosystems= land uses in the territory

Bel-ew

Pehyew

**Along -n
Hebheh**

Dowengan

Linnengan

greenbelts

Inum-an

Pan-abungan

Dayahan

kinabba

Kiyewan

Wangwang

pahtulan

Muyung

Payew

Waklitan

Lidah

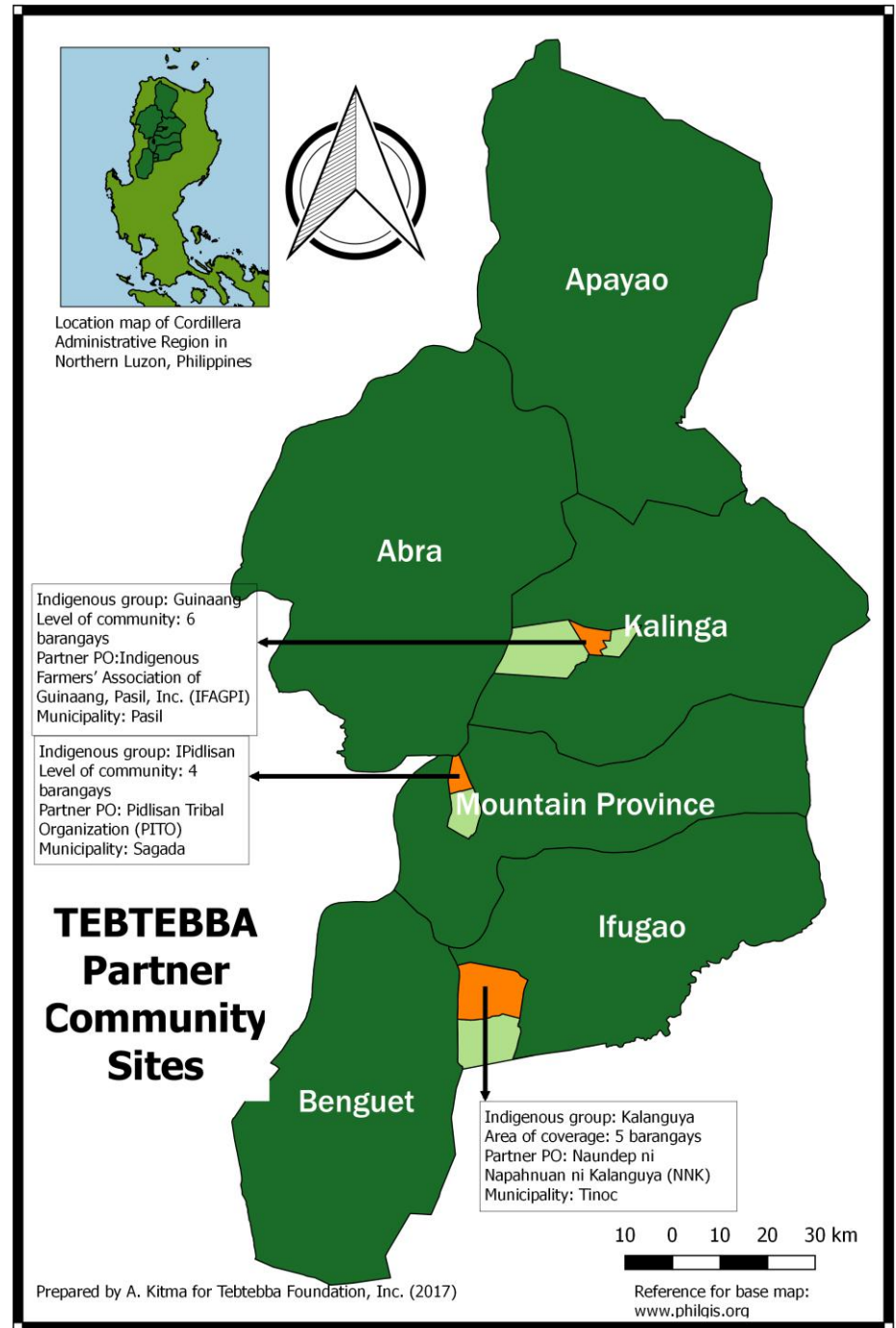


The traditional knowledge on territory management of the Kalanguyas' made possible the harmonious relations of the different nested ecosystems [of watersheds, woodlots, farmlands, homesite, etc. and the protection of the web of life within each of the land use. It illustrates a man- land-nature and spirit relations biased for the common good, resource conservation and protection -an ecosystems based approach with a strong culture and spiritual dimension

Veering away from these traditional knowledge systems and practices made negative impacts on the environment, food security, community health

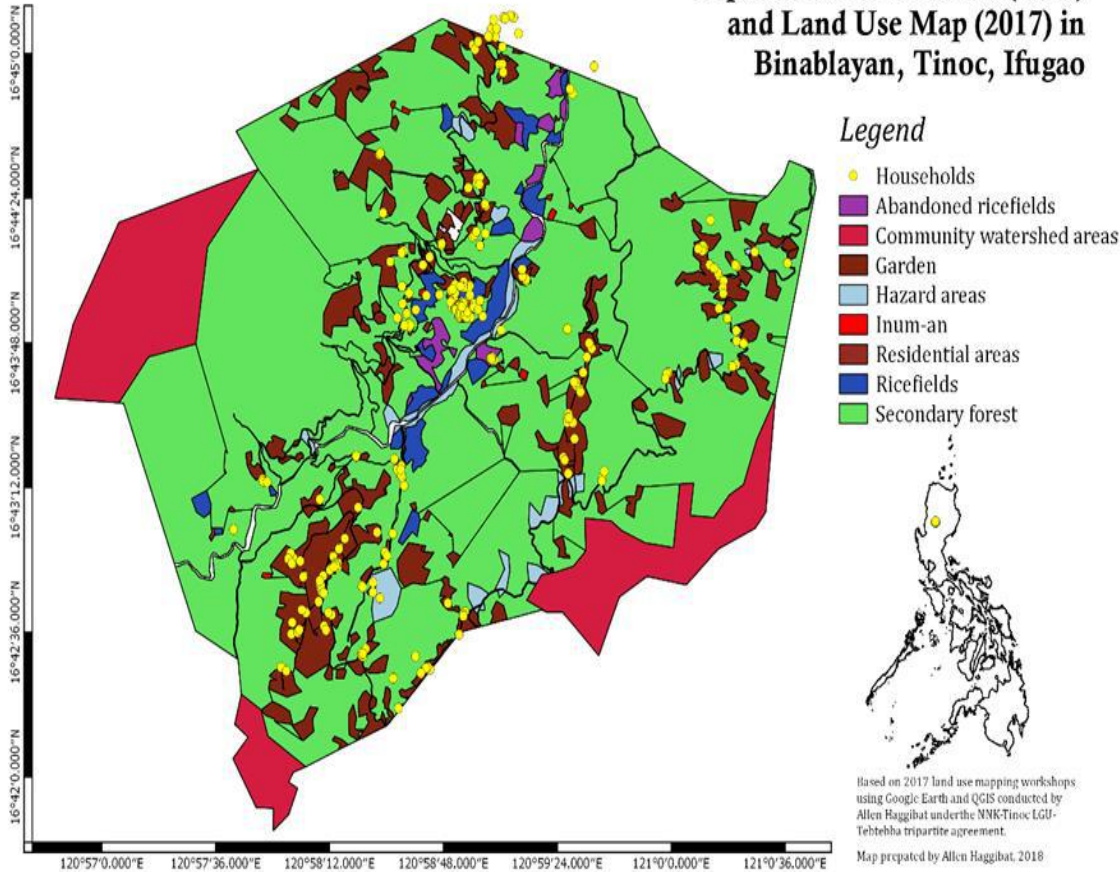


Territory / land use assessment was replicated in two other tribal areas that came out with the same resolution – to strengthen, revitalize traditional knowledge and innovate for community development



Site where the innovation was tested with some academic tools

Population Distribution (2015)
and Land Use Map (2017) in
Binablayan, Tinoc, Ifugao



About a hundred years ago people settled and changed the grasslands [once a grazing land] into a mosaic land scapes of ricelands, tree home gardens, woodlots, rotational farming areas.

In 2004 they converted farms and forests to production site for monocrop commercial vegetables

Crops	Local name	English name	Scientific name	No. of varieties	Status as of 2017
Rootcrops	1. ubi	sweet potato	<i>Ipomea batatas</i> L.	26	Decreasing
	2. luktu	Yam	<i>Dioscorea alata</i>	2	Decreasing
	3. pihing	Taro	<i>Colocasia esculenta</i>	3	As is
	4. galyang		<i>Alocasia macrorrhiza</i>	1	As is
	5. kahuy	cassava	<i>Manihot esculenta</i>	1	As is
Legumes	1. aggayap	rice beans		1	Decreasing
	2. atab / aknaban	cow pea	<i>Vigna sinensis</i>	2	Decreasing
	3. kaldih	pigeon pea	<i>Cajanus cajan</i>	2	Decreasing
	4. utung	string beans	<i>Vigna unguiculata</i>	2	Decreasing
	5. biligan	winged beans	<i>Psophocarpus tetragonolobus</i>	1	Decreasing
	6. puhnuk / hang-awan	sitting beans		2	Decreasing
	7. mongo		<i>Phaseolus mungo</i>	2	Gone
	8. mani	peanut	<i>Arachis hypogaea</i>	2	Abundant
Cereals	1. pagay	upland rice	<i>Oryza sativa</i> L.		Decreasing
	2. habug	wheat	<i>Triticum</i> spp		Gone
	3. gahilang	corn	<i>Zea mays</i>	3	Decreasing
	4. adlay	Job tears	<i>Coix lacryma-jobi</i>	1	Gone
Spices	1. laya	ginger	<i>Zingiber officinale</i>		As is
	2. danggo	onion leeks	<i>Allium ampeloprasum</i>		Decreasing
	3. langih	sesame	<i>Sesamum indicum</i>	2	Decreasing
	4. amput	garlic	<i>Allium sativum</i>	1	Decreasing
	5. hili	pepper	<i>Capsicum frutescens</i>	2	Decreasing
Fruit vegetables	1. appalya	bitter melon	<i>Momordica charantia</i>	2	Decreasing
	2. talung	eggplant	<i>Solanum melongena</i>		Decreasing
	3. okra	lady finger	<i>Hibiscus esculentus</i>	1	Decreasing
	4. kalumbaha	squash	<i>Cucurbita maxima</i>	4	Abundant
	5. tabungao				Decreasing
	6. kammath	tomato	<i>Lycopersicon esculentum</i>	5	Gone
Leafy Vegetables	1.	spinach	<i>Spinacia oleracea</i>	5	As is

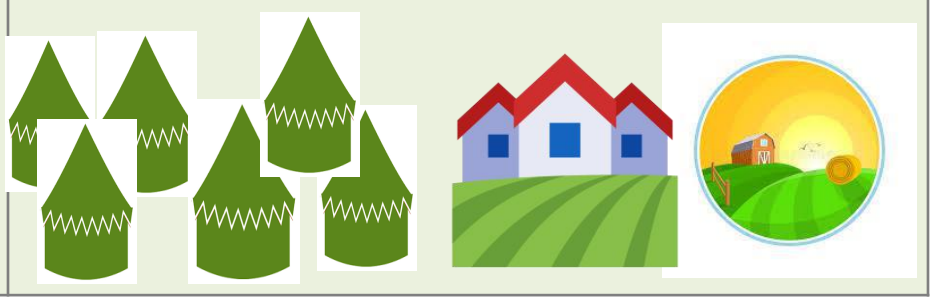
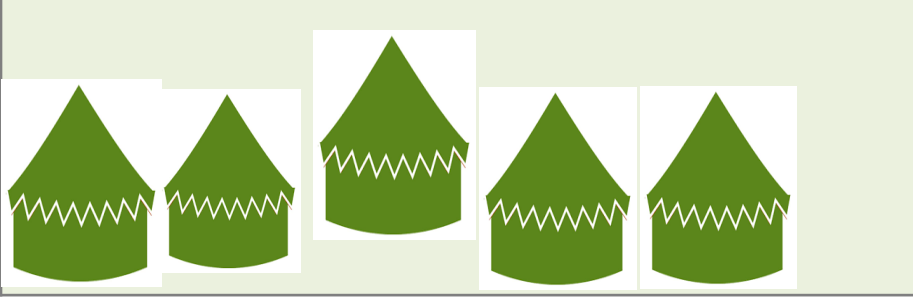
Contributions to the Aichi Biodiversity Target

18

Indicator 1: **Number of communities re-affirming their traditional knowledge**

Indicator 2: **Number households, communities taking action to revitalize TK to reclaim abandoned paddy fields, restore their forests using and innovating on their TK**


BEFORE (2012)	AFTER (2015)
<p>Indicator 1. After territory assessment from 2008-2010, 12 of the 12 communities resolved to reaffirm their traditional knowledge on territory management</p>	<p>(Only 6 are being monitored due to lack of capacity and collaborative work was discontinued) ; 2 indigenous communities also re-affirmed the validity of their knowledge systems and strengthening these are ways forward</p>
	



Contributions to the Aichi Biodiversity Target

18

- Indicator 1: No. of IP households revitalizing and innovating on their TK in agriculture
- Indicator 2: Number of rice paddies reclaimed
- Indicator 3: Number of hectarage of forest protected through revival of customary forest protection

BEFORE (2010)	AFTER (2015)
	<p>[note there was inaction from 2012-2014]</p> <p>27 in three villages</p>
<p>[No baseline data on the villages that reclaimed their abandoned ricefields]</p>	<p>2 cluster of paddy fields in one village</p> <p>4 hectares of paddy field in another village</p>

Indicator 3

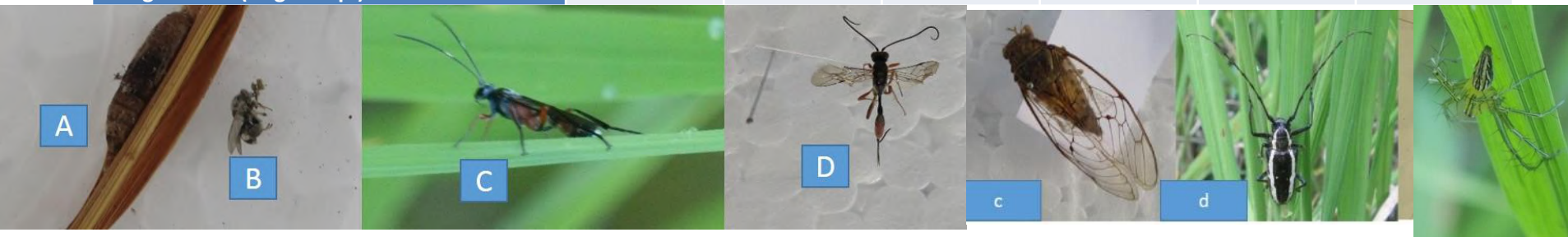
**Photo taken
08/09/2014 after
peoples revived
TK on forest
protection,
continued to be
protected to date,
hence continued
forest growth**



Grassland subjected
to annual burning,
Photo taken in
Last quarter 2008



Insect classification	Ginger growth stages			Sweet potato growth stages		
	vegetative stage	rhizome initiation	maturation	vegetative stage	root formation	root maturation
A. Insect pests						
Aphids (<i>Aphis</i> sp.)	✓	✓				
Snout beetle (<i>Oxyops</i> sp.)	✓	✓				
Cockchaffer (<i>Adoretus</i> sp.)		✓				
B. Natural enemies						
Big eyed bug (<i>Geocoris</i> sp.)	✓	✓				
Earwigs (<i>Euborelia</i> sp.)		✓				
Coccinellid (<i>Cheilomenes</i> sp.)		✓				
Damselfly (<i>Agriocnemis</i> sp.)	✓	✓		✓	✓	
Small wasps (<i>Brachymeria</i> sp.)		✓			✓	
Field crickets (<i>Gryllus</i> sp.)		✓				
Praying mantids (<i>Acontispa</i> sp.)		✓				
Rove beetle (<i>Calleida</i> sp.)		✓				
C. Neutrals/visitors						
Flea beetle (<i>Phyllotreta</i> sp.)		✓				
House fly, (<i>Musca domestica</i>)	✓	✓		✓	✓	
Stingless Bee (<i>Trigona</i> sp.)				✓		



Contributions to the Aichi Biodiversity Target

Note: The innovations have been promoted since 2012, field trial was done in 2015 only once

19	Indicator 1: Effectivity of innovations to enhance soil fertility, increased productivity	
	Indicator 2: Assess cultural pest control through insect inventory	
	BEFORE (2012)	AFTER (2015)
	Field trial -- no record	Field trial - Soil pH improved from 4.65 to 6.25 no change in organic matter yield increased
	One woman who adopted since 2013 Production is 3.6 tons per hectare	** three years of continuous practice increased her production. to. 12 tons per hectare
	No previous data	showed 4 families of insect pests and 8 farmer friends insect families






Experimental plots yielded more than 3 times the usual volume of production : from of 3.1 tons/ha to about 12 tons/ha. If up scaled in the 902 hectares riceland- will result to rice self sufficiency, a saving of more than US \$ 1M per year + income to some HH

Contributions to the Aichi Biodiversity Target

20

Indicator 1: Number of proposals supporting the initiative be approved
Indicator 2: Number of activities promoting innovations, TK revival funded by government

BEFORE (2012)	AFTER (2015)
	<p>2 proposals approved to up-scale the work in</p>  
	 <p>Supported by Dept of Agriculture , and barangay LGU</p>

Message to the CBD for post-2020

Revitalization, innovations on traditional knowledge cuts across the Aichi Biodiversity targets and Agenda 2030. Hence direct support for these initiatives should be extended. Partnerships and networks building are vital to upscale communities of good practices to contribute to a transformative change.

One fundamental condition for IPLC's to continue to practice and innovate their traditional knowledge systems is the security of their rights to their lands, territories and resources, the base of their knowledge system.



Iyaman!

Thanks