



# Traditional practices for management and conservation of pollinators



Thingreiphi Lungharwo  
Naga Women Union  
Naga Peoples Movement For Human Rights

# Where I Come From



# North East India

- **Considered one of the most culturally diverse regions of the world and most neglected region**
- **Comprise of 8 states: Arunachal Pradesh, Assam, Manipur, Meghalaya Mizoram, Nagaland, Sikkim and Tripura**
- **Officially recognized 220 but there are more than 420 tribes**
- **The region has two biodiversity hotspot: Indo-Burma region and the Eastern Himalayas**
- **64% of biodiversity in India are from North East**



# My Tribe : Tangkhul Naga





# Land Tenure system of the Tangkhul Naga

## Three types of land tenure system :

1. **Community tenure system-** regulated by the community
2. **Clan tenure system-land custodian is inherited by the clan chief**
3. **Private tenure system - inherited by the eldest or the youngest son**

- According to the Naga customary laws Land is sacrosanct; people belongs to the land and not land to the People.
- When land is inherited it is the tenorial custodian roles and responsibilities and not the ownership, land ownership belongs to the future generations.

Therefore, selling of land as customary practice undergo consultation at different levels (relative, clan, village and tribe)

# Traditional Institutions of the Tangkhul Naga

- Local self-governing units is called the “HANGA” (Village Council) who are representative of clan elders headed by the hereditary chief- the “AWUNGA”
- Representation in the Village Council has direct relation to land holding
- Every village have an unwritten constitution made up of age-old conventions and traditions
- The Hanga is responsible for land and other resources management, regulation of rules/norms, customary laws and practices
- Highest traditional institution: Naga Long (TNL) or the Tribe Council and functions in parallel with the state bodies for cultural and judicial matters
- One tribe language and 200+ spoken village dialects

# Traditional practices and pollination services

- Common resource management regime
- Organic small farming
- Multi cropping pattern and in-situ conservation of diverse crops
- Maintain diversified and integrated agricultural system -, and home garden with bee keeping or piggery, Paddy-cum fish culture, agroforestry agro-silvi , and Ecological farming
- Maintained mosaic of regenerating secondary forest and conserved area across our territorial landscape-conserved forest, jhum fallow forest, oak forest, pine forest, teak forest, mixed forest, alder tree forest, bamboo forest, spirit forest, woodland forest etc. and constitute to 74% forest cover

# Wet Terrace Area Landscape View





# Shifting Cultivation Area Landscape View







Opening new Field

Current Fallow Area

Three years Fallow Forest

One year Fallow Area



# Traditional practices and pollination services

- Maintain flower garden
- Demarcated areas for animal sanctuary or wildlife replenishing area
- regulations of local norms on hunting, fishing, trapping and harvesting of timber product and NTFPs
- Any feast/celebration in the community depended on resources from the fallow forest like game meat and NTFPS
- About 70% of the population partly or fully depends on SC
- Different gender role

Eg. Women's role: flower gardening, home garden , seed selection, mixed cropping

Men's role: hunting and keeping of bees

# Bee Keeping Part of our Life style





# Bee Keeping Part of our Life style





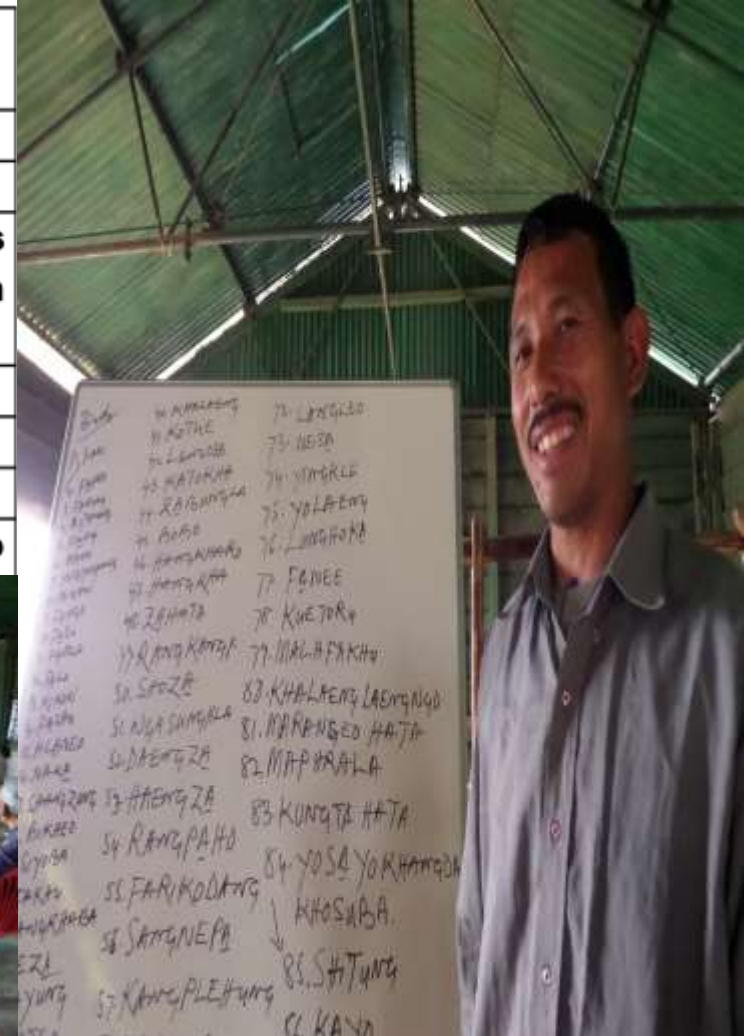
# Bee Keeping Part of our Life style





# Rapid assessment in H.Godah

Production System	Sub	Names	Number	Remarks
Fallow land		Wild leafy veg	42	
		Mushroom	33	
			18 (7+11)	7 honey bee and 11 wasp which is harvest for the nymph (rich protein source)
		Bees		
		Game Meat	32	
		Fish	13	
		Insect	14	
		Birds	98 (92+6)	6 are new arrival so they have no
			244	
Jhum field		Rice cultivar	15	
		Veg	45	
		Other crops	9	
			69	
Terrace field		Rice cultivar	4	
Home garden		Veg	13	
Total number			330	



# What is Pollinations?

- An interaction of nature
  - Signify the vitality and reciprocity of life
- eg: Social visit of man to women is compared to bees visiting the flowers
- Kaha is considered messenger from the spirit of dear ones



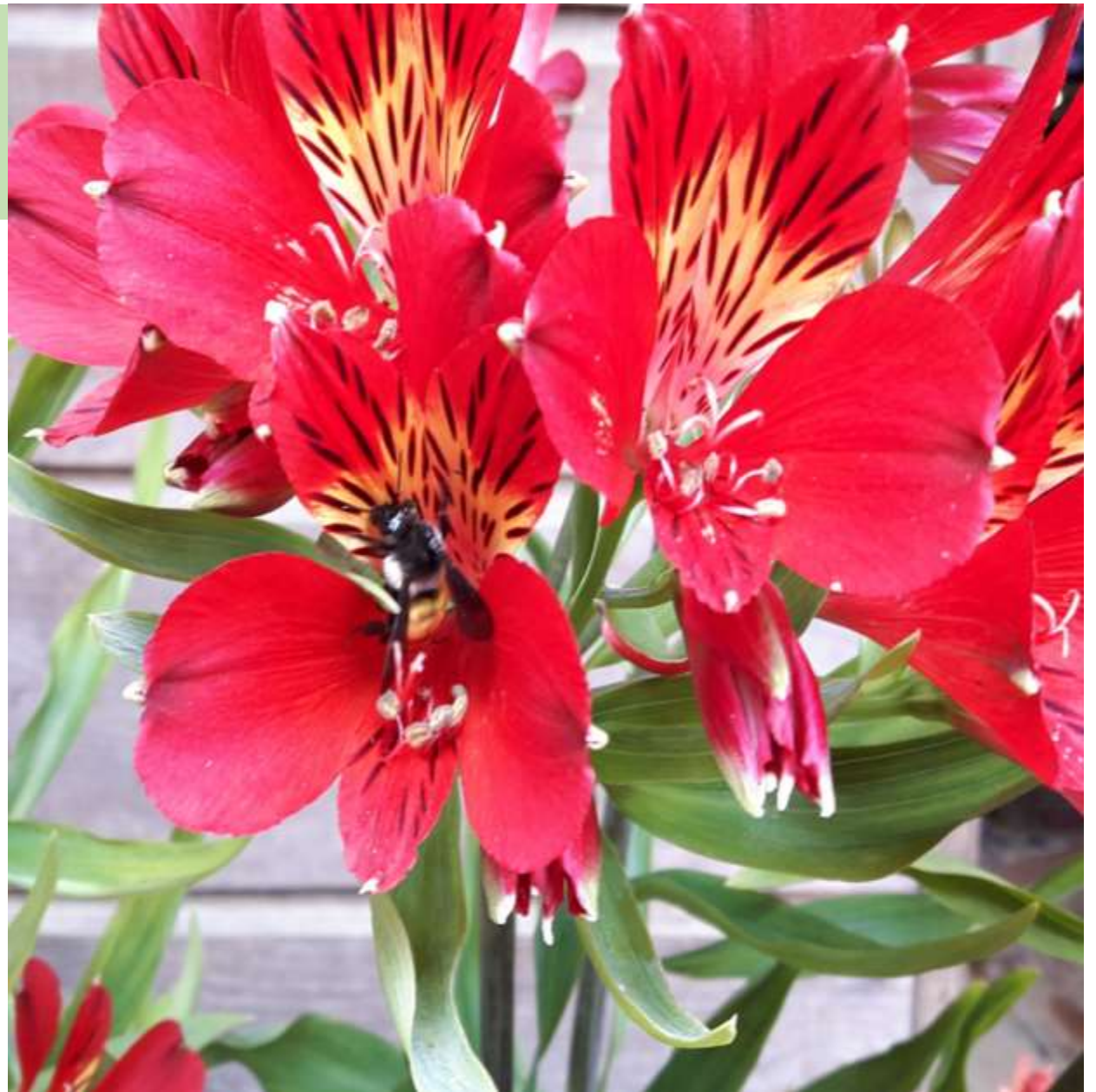


# Nomenclature

- **KHUI-** a generic term use for both honey bees and wasp
- **Honey Bees species -7**
- Shileng=A. dorsata
- Kaha=A. cerana indica
- Mikza=A. florea (3 types) or the medicinal honey
- Fakhui= Bumble bees
- Many solitary species are named Just - khui
- **Wasp species-11**
- Khuirei, Khuipui, Mayir, Mazam, Ngayakhui, Sarakhui etc

# Values of KHUI

- **Cultural values**
- **Economic Value**
- **Medicinal values**
- **Good protein source and Special diet for children and elderly persons**
- **Enhance resiliency and buffer crop failure during unfavorable time**
- **By product support other profession eg. wax use by weavers**





# Harvest Festival not is complete without KHUI





# Management of Shifting Agriculture to lengthen the Regenerative Fallow Period not to replace the system





# Local Monitoring

- **Fallow forest: a preferred foraging area for animals including pollinators (rapid assessment)**
- **some of the animals/ insect pollinators and plants are found only in the fallow area which are also link to other sub-system**
- **eg. wasp prefer their nesting in the fallow land and acts as pest control in the jhum fields and indirectly support pollinators or wet terrace fields/rivers basin is breeding ground for some Pollinators**
- **Oak forest and alder tree forest are preferred nesting for honey bees**
- **Khuis are indicator of local weather**
- **Some of the species like A. dorsata and mazam are associated with the spirit of the place**

# Promote Bee keepers





# Contrary Management

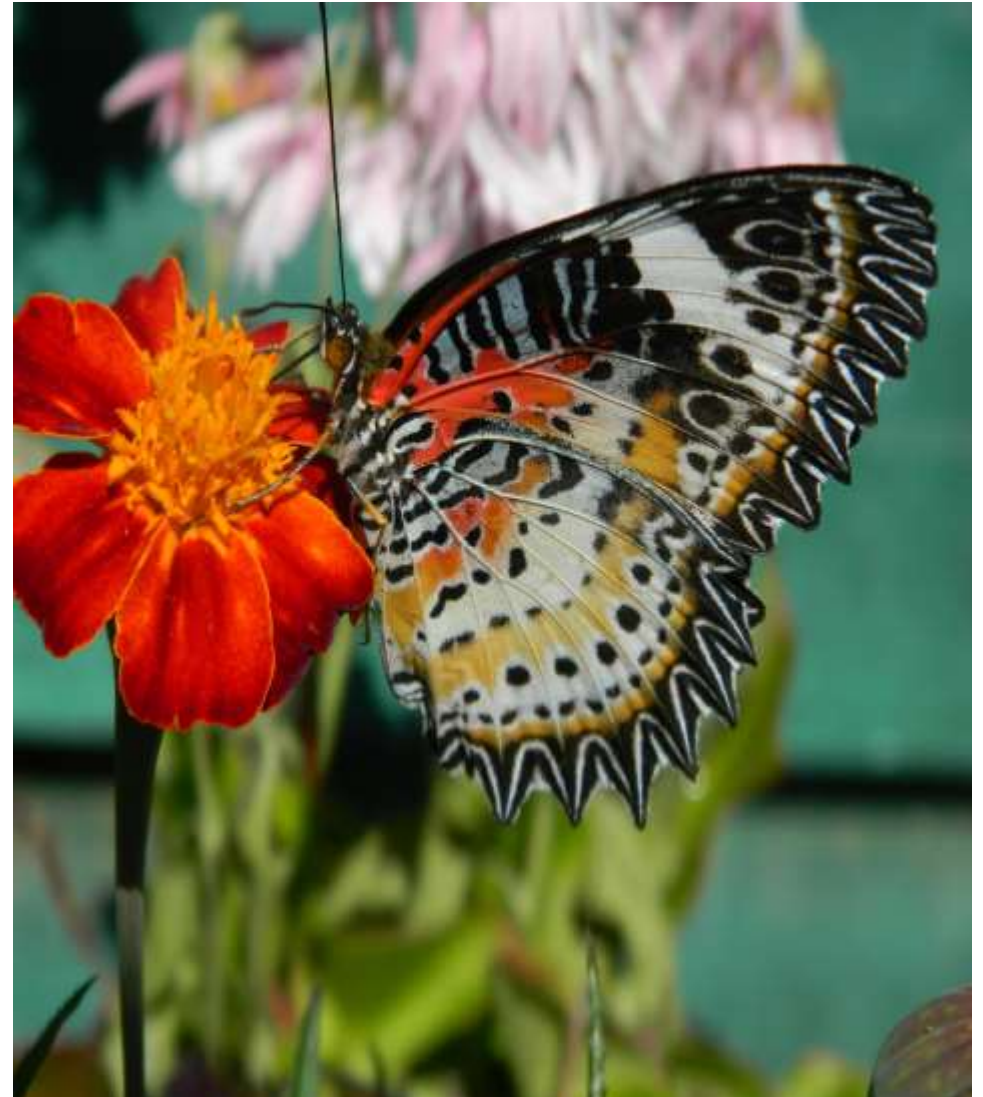
**Habitat or forage area management for pollinators is critical for their survival and key to the integrity of ecosystem functions**

Contemporary: only **Indian hive bee** draws the attention because of commercial value

whereas the value of the **existing 20,000 solitary species** and their interaction with other elements of the ecosystem has little acknowledgement

Vast majority of the solitary pollinators depends on endemic plant species, deadwoods, saps, remains of plants etc for their survival- so

Literature informed existence of only four major honey producers in Indian subcontinent- **identified 7 by community**



# Contributions : Aichi Biological Targets

- **Target 7**  
...areas under agriculture and forestry are managed sustainably, ensuring conservation of biodiversity.
- **Target 11-**  
.....areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes ...
- **Target 13**  
..... safeguarding their genetic diversity
- **Target 14**  
...ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.
- **Target 18**  
the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected.....

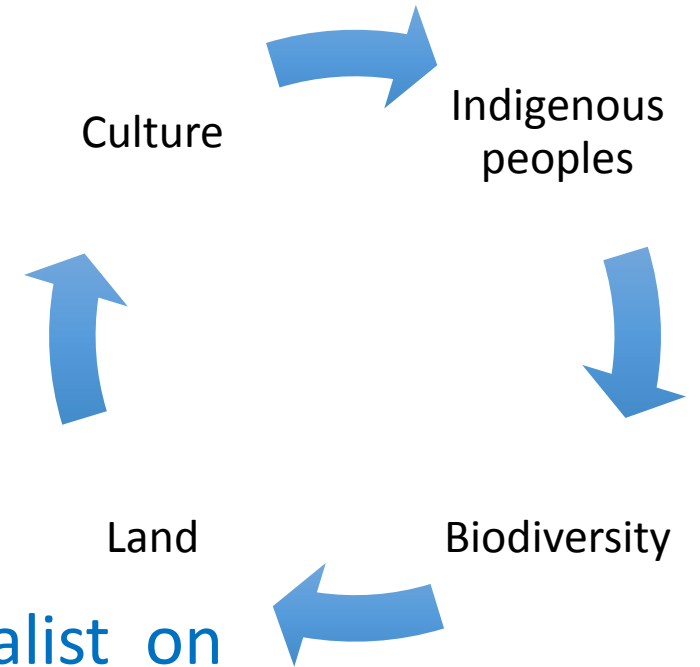


# Contributions :Sustainable Development Goals

- **Goal 1: End poverty in all its forms everywhere**
- **Goal 3: Ensure healthy lives and promote well-being for all at all ages**
- **Goal 5: Achieve gender equality and empower all women and girls**
- **Goal 15: Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss**

# Recommendations

- Recognize and respect the intrinsic link of indigenous peoples with our land and nature: our holistic approach to land use and natural resource management practices
- Recognize the roles of our traditional institution
- Recognize indigenous women's role in maintaining the reservoir of genetic materials
- Develop policy & program that is accessible and benefits the whole community and landscape not selected household or restricted areas
- To generate or depute expertise subject matter specialist on IP natural resource management practices and not just contemporary agricultural scientist or service providers





Thank You !  
Kuknalim!  
Long Live Indigenous Solidarity!!!



January 10, 2017