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GOOD PRACTICES IN BEE KEEPING / HONEY PRODUCTION FOR SUSTAINABLE FOREST MANAGEMENT IN UGANDA

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E-LEARNING SERIES

Sustainable Forest Management Impact Program on
DRYLAND SUSTAINABLE LANDSCAPES

POTENTIAL

- Beekeeping is an important nature based enterprise system in Uganda comprise of traditional, transitional, and modern approaches, with 87% beekeepers practicing the traditional system.
- Uganda has potential for bee keeping linked to natural resources evergreen vegetation, natural reserves, plantations and vast croplands; presence of wild colonies of honey bees; and enabling policy environment



**BEE KEEPING
PRACTICE
DOCUMENTED IN
WOCAT DATA BASE:
<https://wocat.net>
also under UGACAT:
<http://www.ugacat.ug>**

A SAMPLE

Integrated Apiculture and Forestry (Uganda)

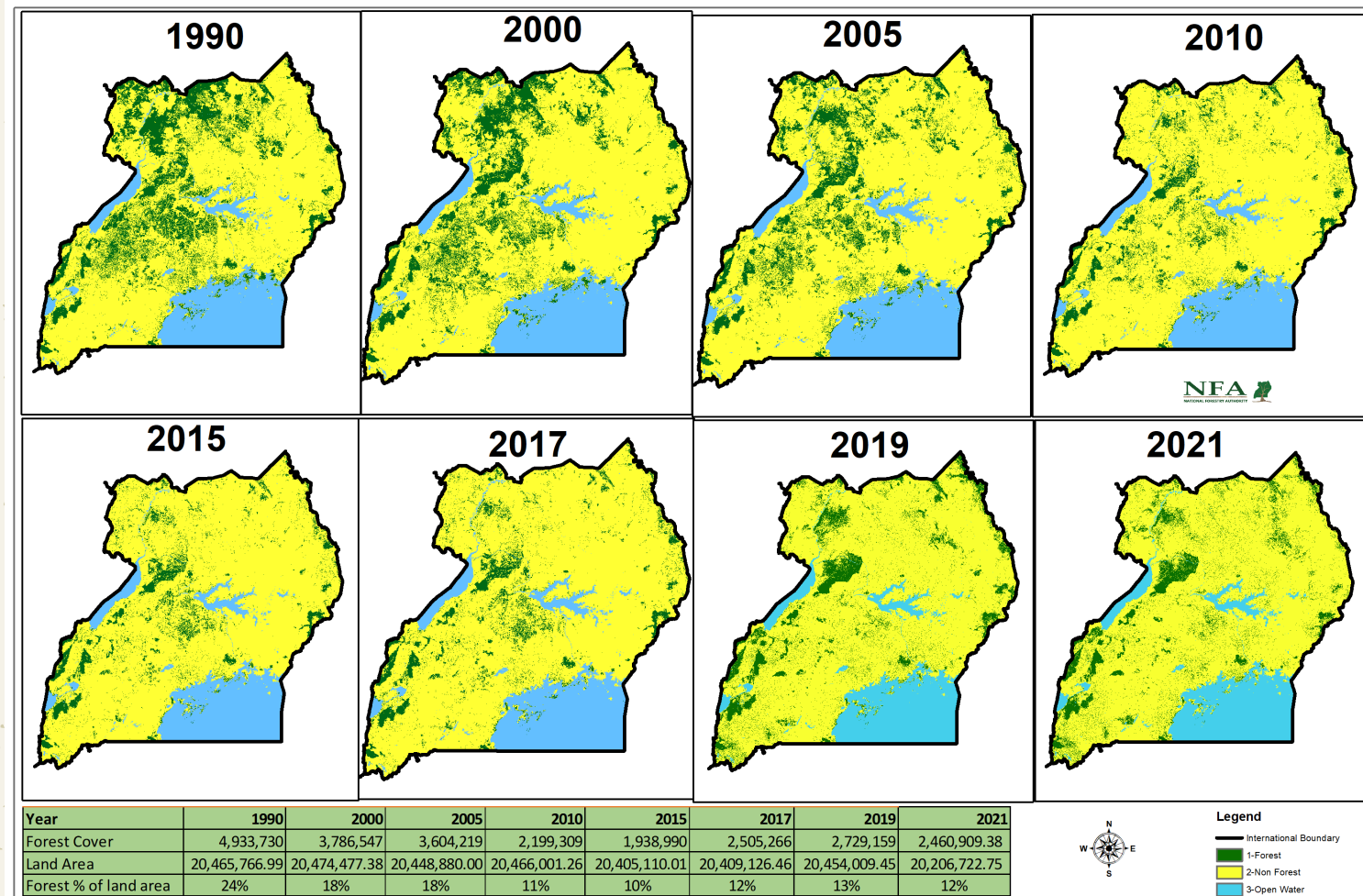
Penywii Bee Keepers Association

Maintaining colonies of honey bees within trees and shrubs for **environmental conservation and household income**. Integrated apiculture and forestry technology is promoted and practiced by farmers with **small, medium or large scale** land holdings of 0.5 acres to 10 with an average of 5-28 local bee hives or more. The farmer may decide to increase the number of the beehives when he sells honey and he gets income. The farmer (1) identifies the land with trees and shrubs where Local wooden bee hives made in rectangular shape are cited in a distance of not less than 5 -10 metres from one hive to the other (2) Clean the surrounding to reduce the weeds around the cited area (3) Site the beehives within the tree and shrubs (4) keep monitoring bush fires and thieves. The necessary labour requirements for establishment of this technology include wooden beehives made locally and 4 people to install the bee hives who are paid on daily or monthly basis depending on request. The **benefits** from this SLM technology are slightly **negative** due to the high costs of local bee hives at the time of establishment but **positive** in the long term of environmental conservation, honey provision and increased income from the sale of honey in addition to using local materials obtained locally associated with low costs. Wild **fires** are a common threat during the dry seasons and in order to overcome this issue, it is needed to constantly keep monitoring and establish fire lines to guard against the wild fires

NATURAL RESOURCE BASE FORESTS SPECIFICALLY – DEPLETING FAST

CHANGE TRENDS:

- 1890 Forest cover was 45 %
- Trends between 1990 to 2021 is visibly alarming
- Current forest cover at 12%



FOREST COVER TRENDS IN UGANDA 1990-2021

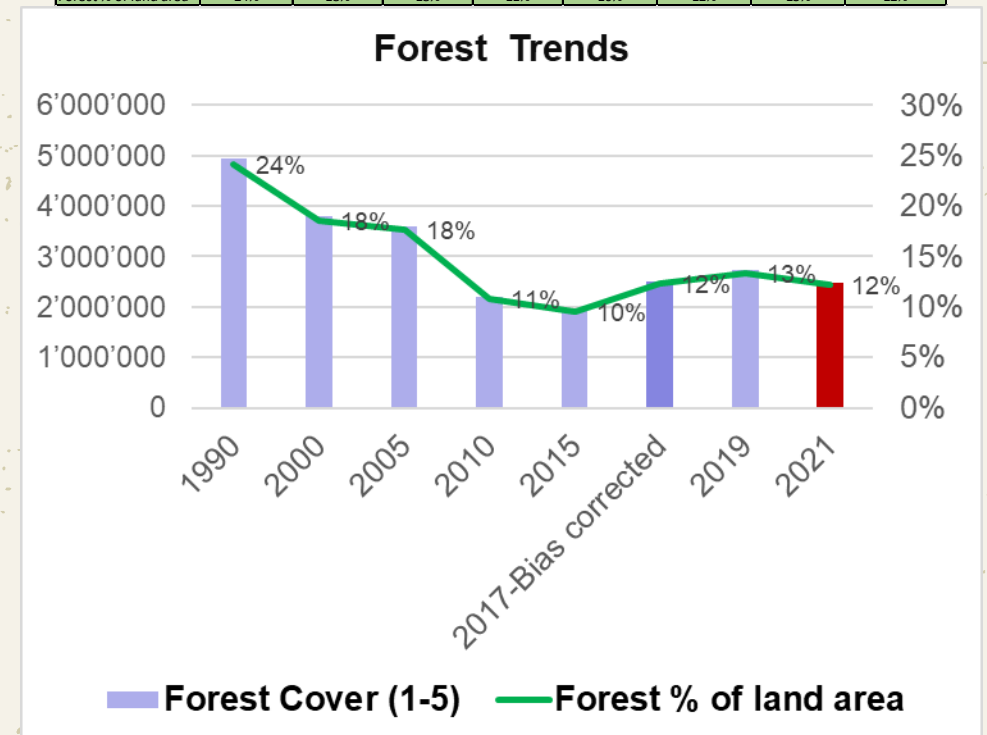
DRIVERS OF DEFORESTRATION (SYMPTOMS):

1. Expansion Of commercial and subsistence agriculture
2. Unsustainable harvesting of tree products mainly charcoal, firewood and timber
3. Expansion of human settlement
4. Free grazing livestock
5. Artisan Mining
6. Oil exploitation

REAL UNDERLYING REAL DRIVERS:

- High rates of population growth
- Low levels of economic performance resulting dependence on subsistence agriculture replacing forests
- Weak Governance
- Land tenure systems
- Climate change

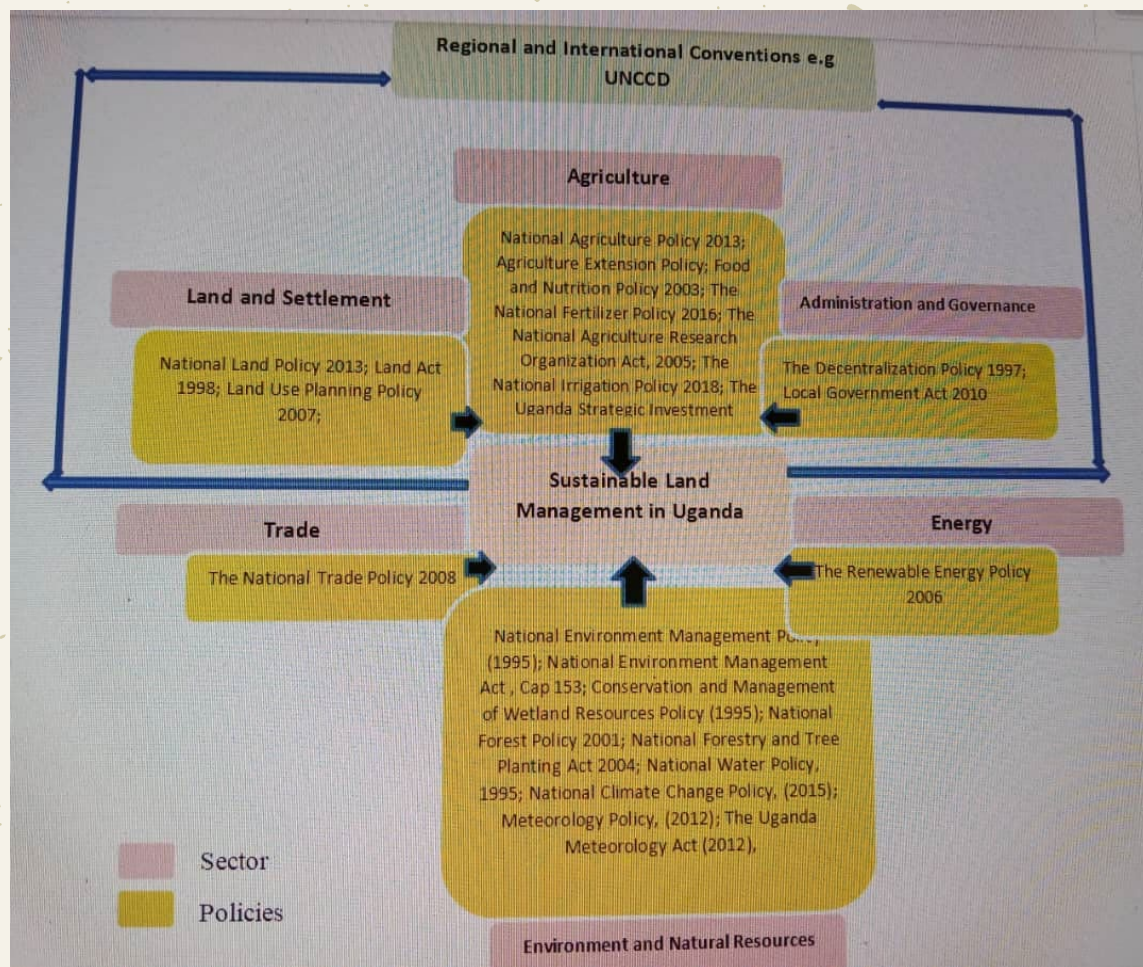
LULC class	1990	2000	2005	2010	2015	2017	2019	2021
Broadleaved plantatio	18,682	9,844	14,786	20,995	43,733	84,137	228,118	255,527
Coniferous plantations	16,384	11,498	18,741	43,743	63,546	75,801	86,236	83,028
THF high stocked	651,106	703,926	600,955	564,948	525,134	524,189	518,073	532,140
THF low stocked	273,060	226,549	191,693	120,756	104,592	102,150	156,774	125,241
Woodlands	3,974,498	2,834,730	2,778,044	1,448,869	1,201,985	1,239,176	1,739,958	1,464,973
Bushland	1,422,254	4,007,891	2,968,685	2,371,776	1,970,692	1,664,429	273,405	553,394
Grassland	5,115,446	2,793,950	4,063,594	5,068,269	5,103,796	5,121,004	5,531,494	4,561,605
Wetland	484,028	838,537	753,038	810,445	716,721	785,703	877,337	964,353
Subsistence farmland	8,401,550	8,916,053	8,847,640	9,772,224	10,275,557	10,483,258	10,607,875	11,206,541
Commercial farmland	68,446	103,327	106,629	134,915	255,934	182,396	165,003	172,616
Built up	36,571	26,315	97,270	98,449	135,593	138,722	259,502	279,876
Water bodies	3,689,580	3,680,870	3,706,467	3,689,346	3,750,237	3,746,221	3,701,338	3,734,250
Impediment	3,741	1,857	7,804	10,614	7,828	8,162	10,235	7,428
Total Area of Uganda	24,155,346.98	24,155,346.98	24,155,346.98	24,155,346.98	24,155,346.98	24,155,346.98	24,155,346.98	24,155,346.98
Year	1990	2000	2005	2010	2015	2017	2019	2021
Forest Cover	4,933,730	3,786,547	3,604,219	2,199,309	1,938,990	2,505,266	2,729,159	2,460,909.38
Land Area	20,465,766.99	20,474,477.38	20,448,880.00	20,466,001.26	20,405,110.01	20,409,126.46	20,454,009.45	20,206,722.75
Forest % of land area	24%	18%	18%	11%	10%	12%	13%	12%



STRUCTURE

Regulations and Enforcement within the environment and Natural Resources sector at District and central government levels for: creating coordination and engagement of stakeholders and mainstreaming forestry issues in other sectors:

UGANDA'S POLICY LEGAL FRAMEWORK FOR ENVIRONMENT and NATURAL RESOURCES SECTOR



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UGANDA'S RESORATION FOCUS

The main target is to promoted SLM and restore forest cover from the current 12% to 24%

This national aspiration has been translated in the pledge Uganda made in the Bonn Challenge to restore 2.5 million hectares of land to forests using Forest Landscape Restoration (FLR) approach.

Ten restoration hotspots have been delineated using set criteria mostly areas that had experienced high rates of deforestation and degradation between 1990 and 2015. The majority of them were protected areas. Specific interventions specific to Bee keeping:

- Climate smart agriculture with more Agroforestry trees on landscapes
- Sustainable energy initiatives - Keep forest ecosystems intact
- Forest rehabilitation with 40M tree campaign using indigenous trees

MULTI LEVEL GOVERNMENT INITIATIVES

UGANDA'S RESORATION FOCUS

National laws matching Global Multilateral Agreements Forestry Policy linked to UNCCD, CBD

District Level

Ordinance regulations towards Climate resilient landscape with a focus on catchment management , scaling nature based enterprises and strengthening forest systems

Sub County and Parish levels

Bye laws formulation, implementation and reviews on towards strengthening capacity of communities in collective action and institutional governance e.g. innovations as fire lines and protection of natural forests on private properties . Also, community capacity strengthening in dialogue and coalition bargaining support from central government support voluntary tree planting and afforestation initiatives.

SETBACKS LOCAL IN POLICY and INSTITUTIONAL ARRANGEMENTS

- 1. Inadequate institutional capacities in management of Ecosystems and cross sectoral coordination**
- 2. Knowledge generation and information management constraining the extent to which experiences and lessons are used to improve forest policy and regulatory framework**