



# Public-Private partnerships for sustainable agriculture and business development: *Allanblackia* species as a case study

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# Background

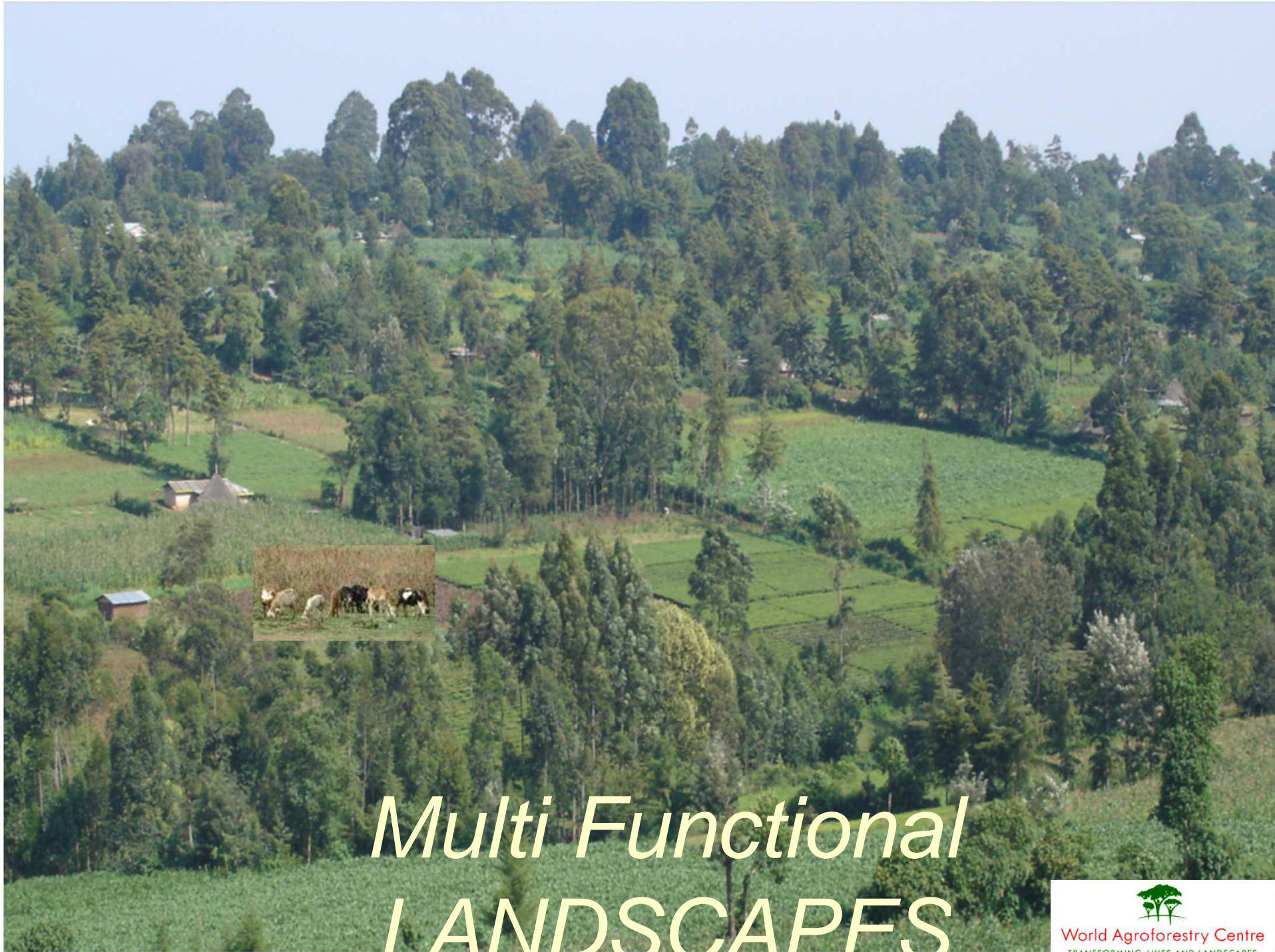
- Africa population is set to increase to 2 billion by 2050
- Crop yield in Sub-Saharan Africa is the world's lowest
- Only 27% of potential yield, according to the FAO
- Bringing diversity of species into wider cultivation provides opportunities to, increase productivity, combat malnutrition , adapt to climate change and improve livelihoods

# Background

- There is a need for innovative approaches to address food, nutrition, environmental and livelihood challenges. Such approaches should include:
  - Agroforestry
  - Tree domestication and diversification
  - Public and private partnerships







# *Multi Functional* **LANDSCAPES**



# Agroforestry Products



Allanblackia

**Fruits and nuts**

Nutrition and health



Varieties of fruits



Calliandra

Livestock

**Fodder**

**Income, Livelihood, Env't services**

**Fertilizer**

Soil health & food security



Faidherbia albida



Shade, energy

**Timber, fuelwood**

**Medicinal, gums, etc**

Combating diseases, industrial produce



Prunus africana

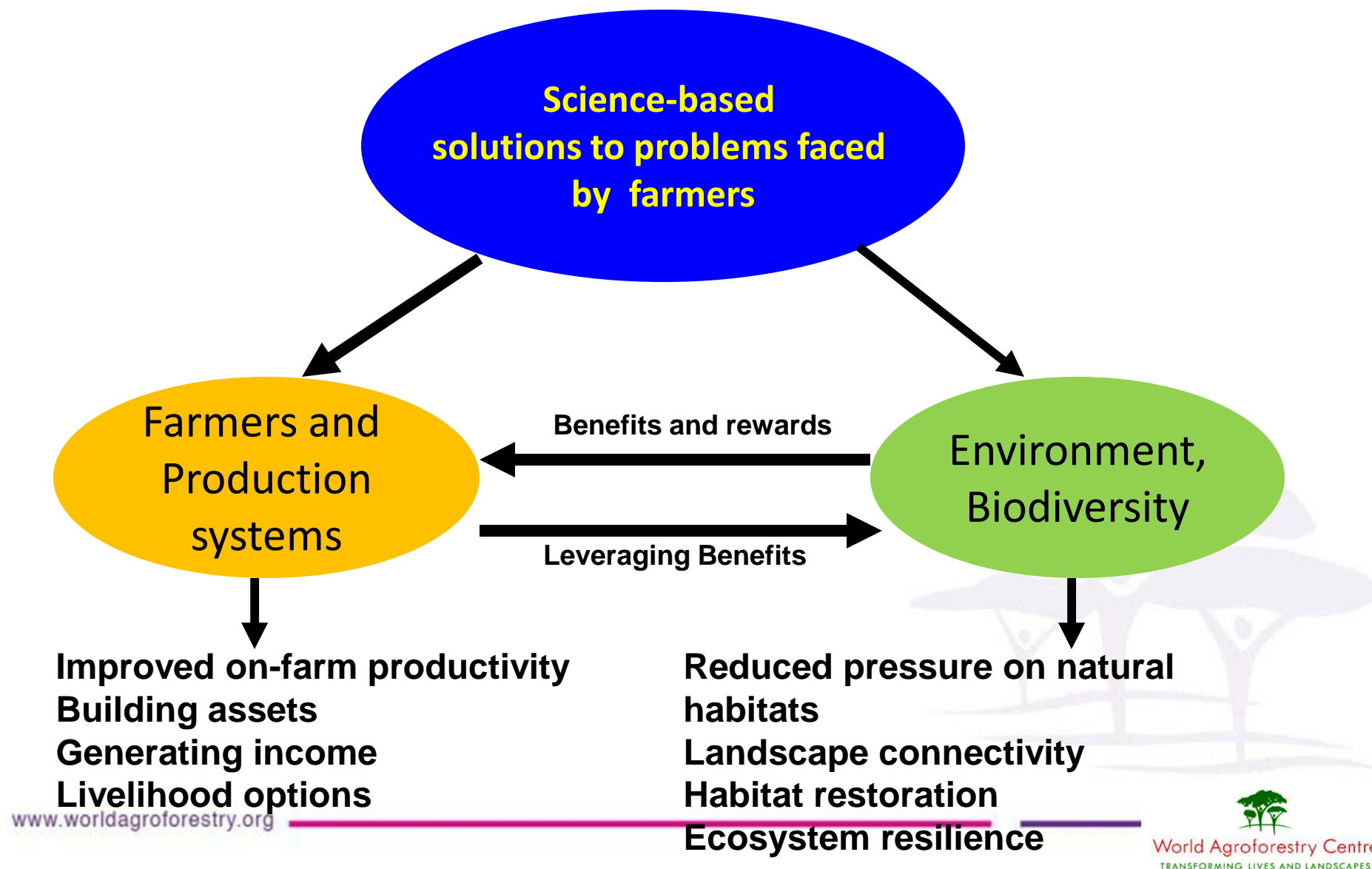
# Global exports value for some tree commodities (Edible)

2001-2008 (US\$ '000) Source: FAOSTAT, 2011

Commodity	2001	2002	2003	2004	2005	2006	2007	2008
coffee	8,661,842	8,462,349	9,769,085	11,810,867	15,637,891	18,256,575	22,061,510	26,800,406
Palm oil	4,916,280	7,479,292	9,841,363	11,842,625	11,638,148	13,962,578	21,346,063	33,016,870
Citrus	7,709,475	8,598,655	10,217,484	10,924,690	11,597,821	12,661,180	15,869,879	17,689,609
Apples	3,410,183	3,852,300	4,675,737	5,354,522	5,622,449	6,410,561	8,398,383	9,320,535
Olives	2,761,684	3,085,092	3,996,924	5,989,857	6,716,176	8,049,248	7,289,693	7,754,972
Cocoa	2,208,064	3,219,631	4,200,355	4,836,469	4,954,083	4,790,227	5,708,236	7,246,038
Almonds	917,197	1,176,724	1,461,219	1,840,873	2,650,190	2,571,436	2,637,102	2,652,035
Cashew nuts	947,931	1,066,877	1,211,111	1,355,345	1,500,579	1,757,346	2,025,783	2,735,722
Coconuts	895,927	1,066,877	1,211,111	1,355,345	1,500,579	1,757,346	1,996,676	2,895,301
Pears	1,508	1,508	1,508	1,508	1,508	1,508	1,508	2,376,579
Peaches, nectarines	1,508	1,508	1,508	1,508	1,508	1,508	1,508	2,112,357
Kiwi fruit	1,508	1,508	1,508	1,508	1,508	1,508	1,508	2,019,843
Pistachios	610,856	659,711	709,624	751,423	842,534	951,051	1,425,435	1,707,343
Plums & sloes	610,560	613,885	709,624	751,423	842,534	951,051	1,079,191	1,184,595
Raisins	558,066	577,380	673,286	809,938	895,637	915,796	954,722	1,285,479
Walnuts	424,313	462,340	535,894	685,925	830,099	1,010,112	1,171,124	1,270,622
Mango	428,299	401,188	578,874	585,438	646,821	778,814	918,524	1,001,681
Apricots	291,164	331,417	390,074	464,738	491,066	514,222	541,578	763,834
Papayas	124,014	130,550	161,481	201,833	185,248	182,419	186,153	188,050
Brazil nuts	51,840	57,901	70,975	109,783	163,617	129,307	154,651	159,584
Sheanuts	10,452	12,376	22,807	8,938	7,167	18,835	30,399	42,410
Gums natural	6,628	9,646	11,656	7,761	8,311	5,656	6,747	6,513
Kolanuts	6,932	1,808	1,668	5,241	477	600	1,916	1,904
<b>Total value (US\$)</b>	<b>38,466,348</b>	<b>44,396,109</b>	<b>54,734,826</b>	<b>64,881,375</b>	<b>73,099,654</b>	<b>82,507,849</b>	<b>100,932,445</b>	<b>126,284,602</b>

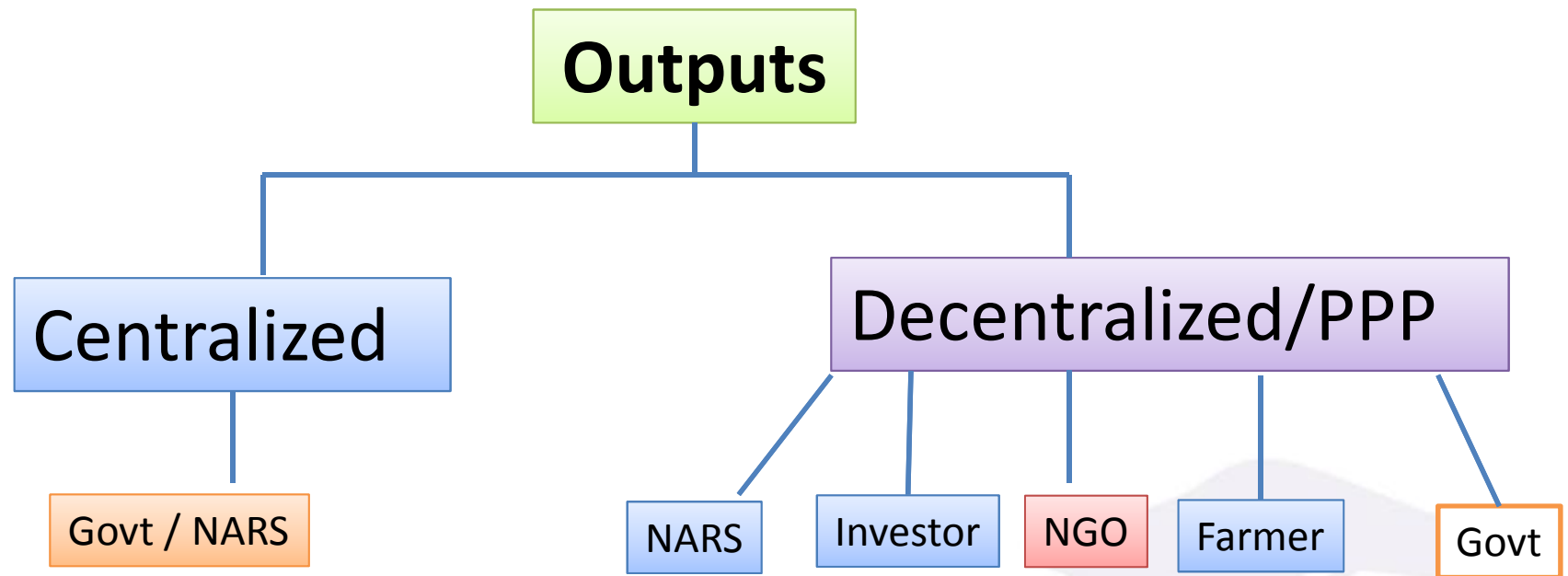
**\$ 126,282,549,680 industry**

# Role of Agroforestry on tree diversity and productivity



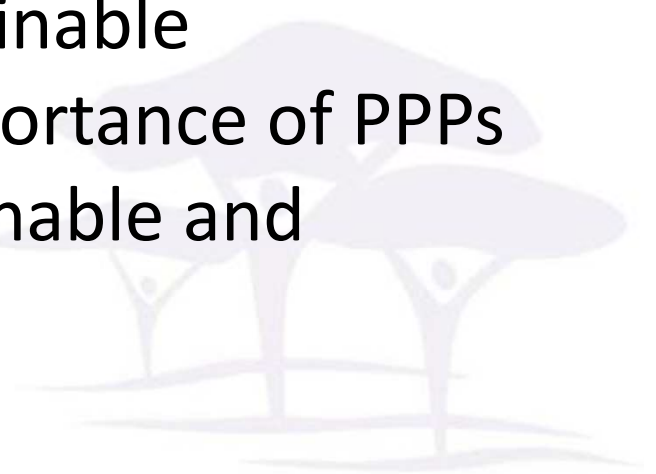


# Decentralization/ partnerships



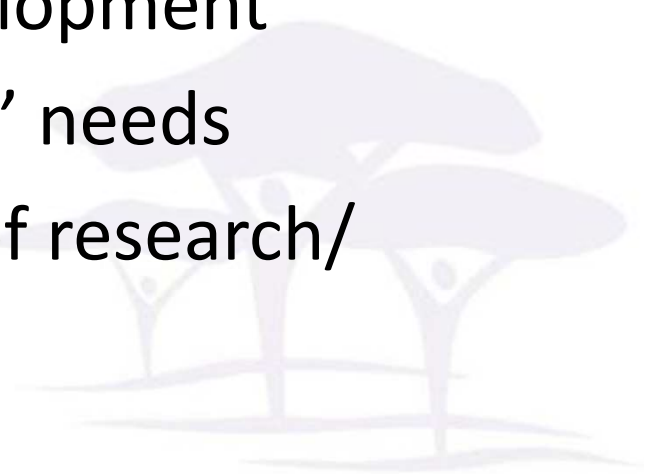
# Public-private partnerships ( PPP)

- Public private partnership (PPPs) can broadly be defined as collaborations between public sector and private entities who share costs, risks and benefits in order to jointly plan and implement activities towards common objectives.
- The 2002 World Summit on Sustainable Development highlighted the importance of PPPs in achieving global goals of sustainable and equitable development.



# Why PPP?

- Bringing together stakeholders with different interests and organisational capacities,
- Sharing of resources for increasing cost-efficiency,
- Avoid duplications,
- Build capacities for business development
- Directly responding to consumers' needs
- Enhances adoption and impacts of research/innovation



# Why PPP?

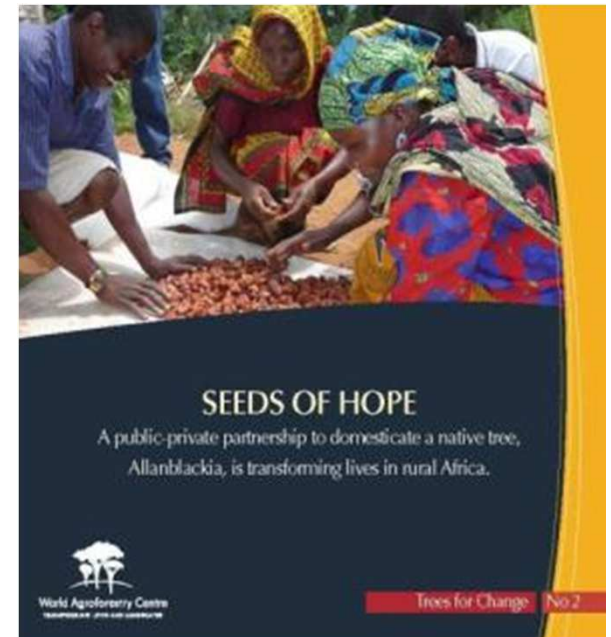
- Potential to raise productivity,
- Catalyst for broader rural development – creating jobs outside of farming in both service and production sectors
- Increases the level of private sector investment
- Sustainability of initiative





# ICRAF's Experience with PPP

- Novella Partnership: Domestication of *Allanblackia* species in Africa
- Mars: Improving the utilization of cocoa companion trees, while mitigating the negative impacts of cocoa cultivation on forest cover
- Evergreen agriculture
- Naturally African – an expanded trade promotion platform of African natural products from a diversity of cultivated tree species
- Development of business models to link smallholder farmers to bio-energy markets



# Case study with *Allanblackia* spp.



# The *Allanblackia* tree and fruits



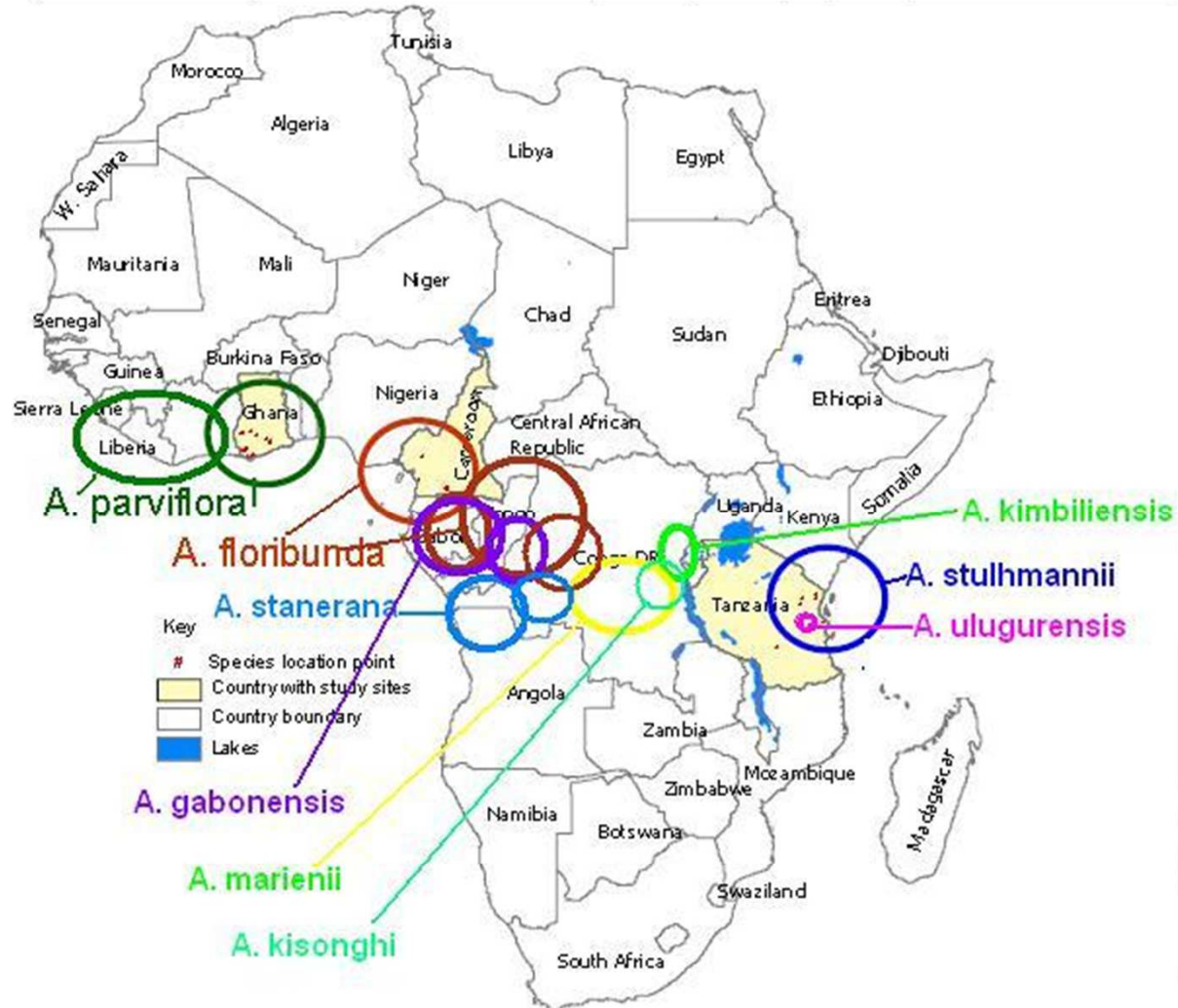
# Allanblackia case study

- shows how governments,
- private sector,
- donors and
- farmer organizations are working together to increase investment, productivity and sustainability in African agriculture.





Allanblackia species in Africa as compiled by Bamps (1969) from collections



Each colour resembles a distinct species distribution, there are overlap of species in the central Africa

# Importance

Uses: multipurpose

- Timber
- Shade
- Medicine
- **Seed Oil**

Production levels

- 120 fruits /tree
- 40 kg of seeds/tree
- 12 kg oil/tree



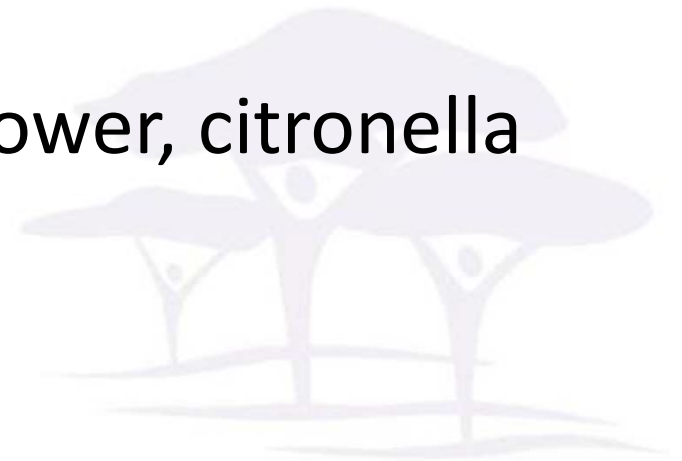
# Allanblackia oil

- Mostly used for margarine production, soap and ointments manufacturing
- Huge market for *Allanblackia* oil >100,000 tons/yr
- Only about 200 tons/yr obtained
- Wild harvesting is unsustainable
- Need for domestication



# Skepticism of farmers

- Perception that they are abundant in the forests
- lack of high quality planting materials,
- Lack of knowledge on propagation, nursery and tree husbandry,
- Earlier initiatives to grow sunflower, citronella etc failed





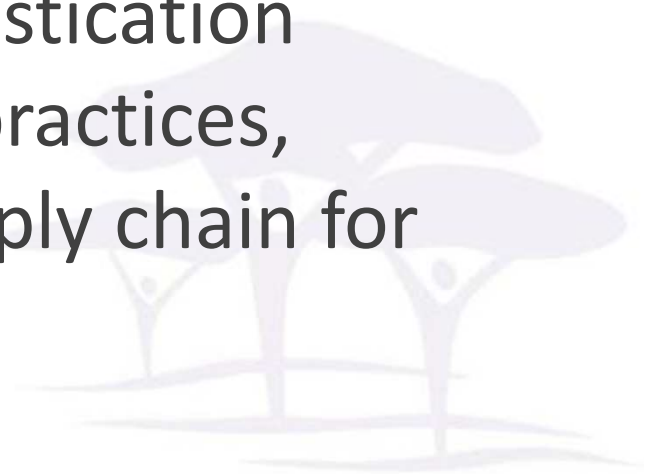
# Skepticism

- uncertain markets and low price,
- unknown nutritional values
- Limitation in post harvest storage and processing
- Financial limitations
- Unfavorable policies



# Novella partnership

- The Novella partnership is a corporate multi-country PPP with strong development, extension and conservation components.
- Established in 2002
- Its main aim is to develop domestication techniques, tree management practices, conservation strategies and supply chain for *Allanblackia* species in Africa



## Main components of AB domestication

- Sensitization and encouragement of farmers to participate in Allanblackia domestication
- Range-wide germplasm collection, development of propagation methods and gene conservation
- Studies on ecology, abundance and sustainable harvesting
- Integration of Allanblackia in agroforestry farming systems
- Facilitation and development of marketing networks and supply chain
- Development of poverty alleviation options in the rural areas through promotion of Allanblackia



# Current members of the partnership

- **Unilever**: Funding, product development & marketing
- **ICRAF**: Domestication (selection, propagation & germplasm conservation), Rural Resource Centres (RRC)
- **Novel International**: Supply chain, marketing, multiplication and distribution
- **IUCN**: sustainable harvesting & biodiversity conservation
- **Farmers**: Smallholder agroforestry systems
- **FORM**: Pilot plantation - Ghana
- **RSSDA**: Pilot plantation - Nigeria
- **UEBT**: Certification of organic and fair trade standards
- **NARS, Universities, ANR etc.**





# Sensitization of farmers



Workshops, radio & TV programmes to increase national and regional awareness



# Participatory tree domestication



*Research nursery*



*RRC*



*Field planting*

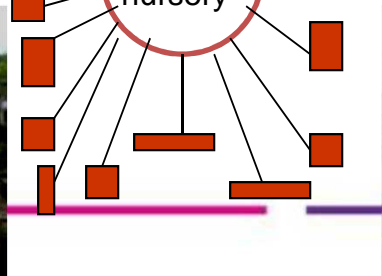


*Satellite nursery*



# Development of propagation techniques







# Conservation plots

Country	Genebank	Demo plot	Mother block
Ghana	121 accessions	Cuttings, grafts, seedlings	grafts
Tanzania	20 accessions	Cuttings, grafts, seedlings	Cuttings, grafts
Cameroon	50 accessions	Cuttings, grafts, seedlings	Grafts, cuttings, marcotts



# Pilot plantations

Country	Activity	Organisation
Ghana	65 ha AB pilot plantation at Oyimso	FORM
Tanzania	AB in 8 ha tea plantation	Tanzania Tea Estate/ Novel Tz
Nigeria	50 ha AB	RSSDA (Nigeria govt)

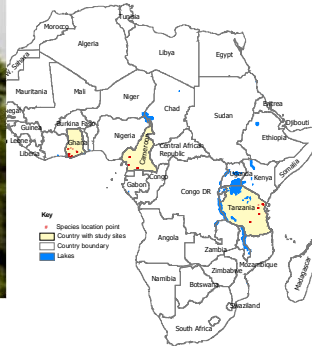


# Smallholder farmers

Country	Farmers planting AB	Seedlings planted
Tanzania	>500	>100,000
Ghana	>200	>18,000
Cameroon	>100	
Nigeria	Farmer registration in progress	Target of 200,000

# Marketing

## Supply chain and market development



- Can pay school fees from Allanblackia
- Can buy school uniform from Allanblackia





## More opportunities = more interest in Planting



Allanblackia contributes a lot in the revenues of several household (**whisky, soap, jam, juice, oil, butter**)

# Lessons learned/ conclusions

- Improve linkages between research, actors in the value chain and end-users,
- Need for better engagement with markets,
- Accelerate technology transfer and foster application by the private sector,
- Develop research projects in close partnerships with the private sector/end users,
- Need for government policy support.





Thank you for your attention



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