

Today's issues for agroforestry development in DRC.

Lessons learned from Ntsio and Campus Vert projects

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AgriNatura Workshop

Presentation plan

1. Agroforestry in DRC
2. Ntsio project
3. Campus Vert project
4. Agroforests of tomorrow in DRC

Agroforestry in DRC



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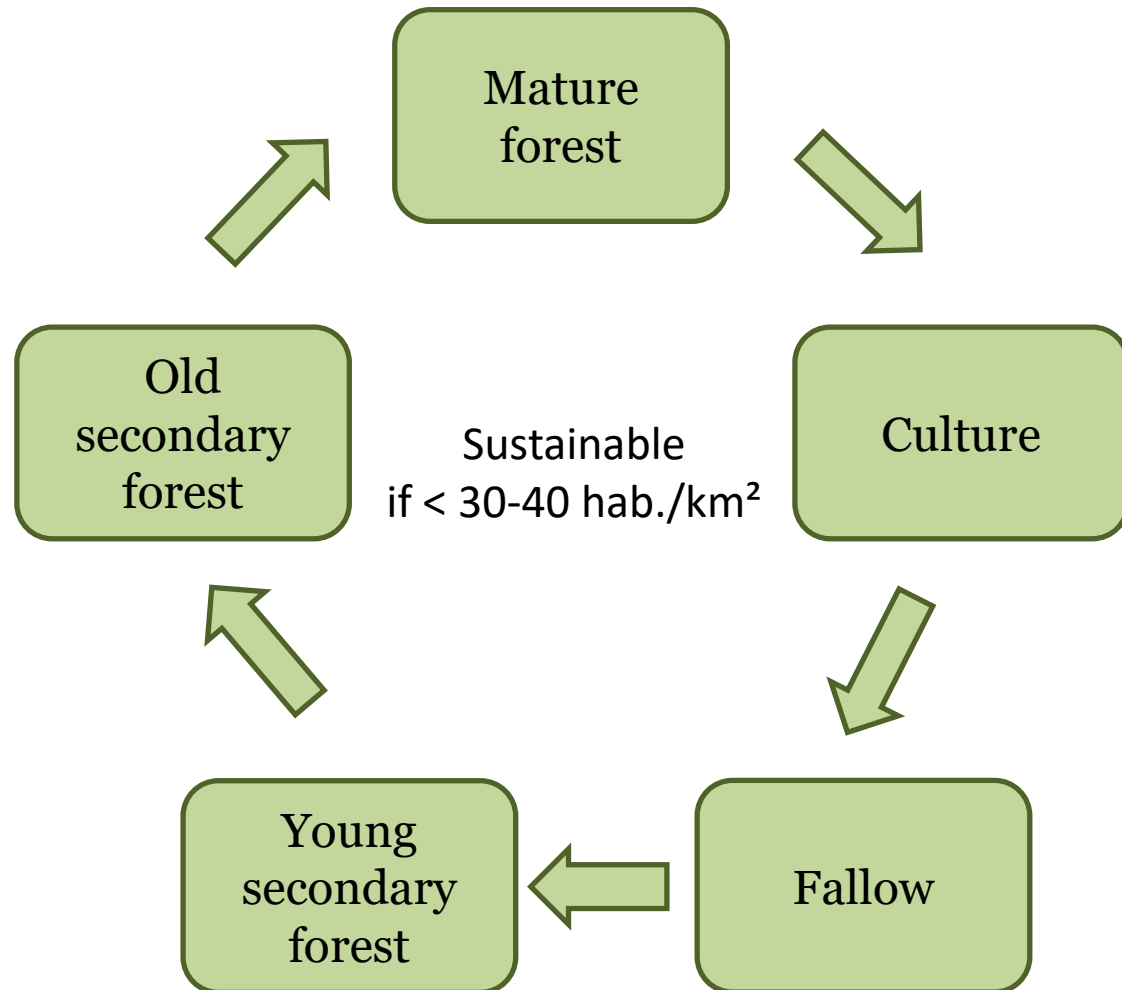
Agroforestry in DRC



History of agroforestry



Slash and burn agriculture



Agroforestry plantations in DRC

Kinzono (1980-1990) 500 ha



Agroforestry plantations in DRC

Mampu (1987-1991) 8,000 ha



Agroforestry plantations in DRC

Ibi Village (2008-2019) 1,200 ha



Ntsio

- Hanns Seidel Foundation, Strategic Institute for Sustainable Development (ISDD)
- European Union funding, total budget of 9.5 million euros
- 2012-2018
- Bateké Plateau



Fondation
Hanns
Seidel

Ntsio

- General objective: Reduce poverty through provisioning of food and charcoal to Kinshasa
- Specific objective: Development of agroforestry and community structuration on a 5,500 ha site in the Bateké Plateau

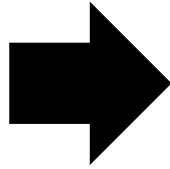


Ntsio

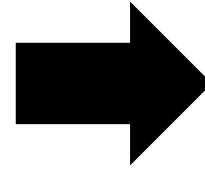
Farmer

1.5ha	1.5ha
1.5ha	1.5ha
1.5ha	1.5ha
1.5ha	1.5ha
1.5ha	1.5ha

15-hectare land unit



Annually 1.5 ha cultivated plot



Each 15ha land unit is divided in 10 plots, and submitted to a rotational production cycle (Annual rotation of 10 plots of 1.5 ha over 10 years)

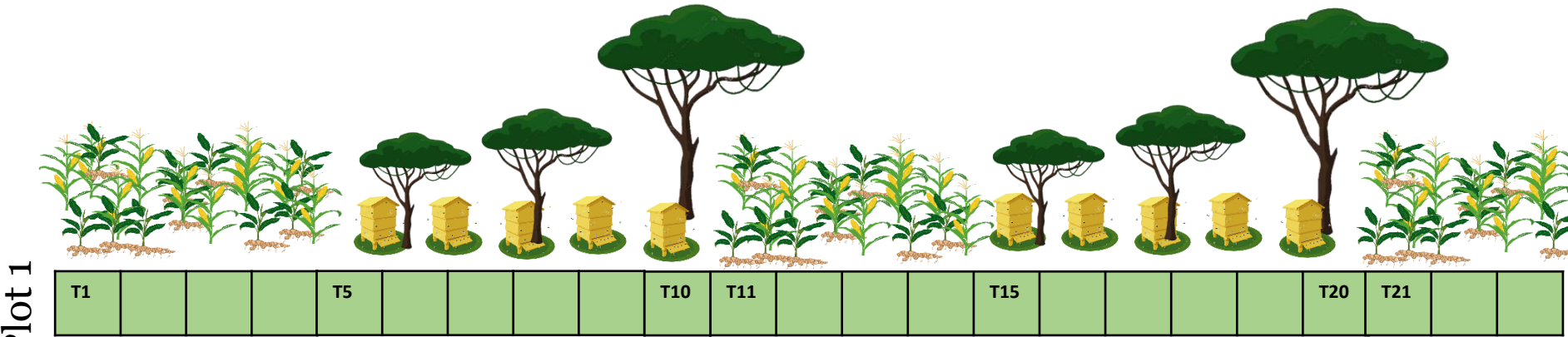
Agricultural production

Cassava and corn = annual production for 3-5 years

Honey = 8-year production cycle with growing yields

Acacia = 10-year production cycle, production starts at year 10

Ntsio



Installation of the cultural plot
Cassava and corn production
Plantation of the *Acacia* seedlings



Installation of beehives and production of *Acacia* honey
End of the cassava and corn culture



Exploitation of the *Acacia*
Balanced year

Ntsio – Results

- 5,500 ha secured and built with facilities



Ntsio – Results

- 5,500 ha secured and built with facilities



Ntsio – Results

- Low production of cassava, legumes, cereals, garden and livestock products



Ntsio – Results

- Valorisation on the carbon market



Ntsio – Financial evaluation

Annual exploitation counts for a balanced year for one farmer (15 ha)

	Balanced year without fund	Balanced year with fund
Resources		
Cassava production	2,301,360	4,832,720
Corn production	30,000	30,000
Honey production	874,000	1,632,360
<i>Acacia</i> production	450,000	602,057
Cassava transformation	5,942,000	6,198,000
Corn transformation	378,000	378,000
Honay transformation	912,000	912,000
<i>Acacia</i> transformation	7,470,000	7,470,000
Cassava selling	6,814,360	6,814,360
Corn selling	28,000	28,000
Honey selling	134,400	134,400
Wood coal selling	594,000	594,000
Total Resources	25,928,120	29,625,897
Costs		
Cassava harvesting	5,047,396	5,047,396
Corn harvesting	53,400	53,400
Honey harvesting	1,310,889	1,310,889
Wood coal harvesting	8,670,990	8,670,990
Total costs	15,082,675	15,082,675
Operating surplus in FC	10,845,445	14,543,222
Operating surplus in USD	6,633 USD	8,895 USD

Ntsio – Financial evaluation

Public subvention with fixed financial IRR of 20%

Annual service payment per farmer (USD)	% of public subvention needed in the total investment
2200	38%
2000	44%
1500	58%
1000	72%

Ntsio – Recommendations

- Importance of land securisation
- Profitability of charcoal production projects



Ntsio – Recommendations

- Importance of land securisation
- Profitability of charcoal production projects

But...

- Development of agroforestry projects dedicated to food production closer to city centres
- Promotion of multi-use local tree species

Campus Vert

- Nature+, Regional Postgraduate Training School on Integrated Management of Tropical Forests and Lands (ERAIFT), ULiège – Gbx ABT
- Walloon Air and Climate Agency (AwAC) funding, 200,000 euros total budget
- 2016-2018
- Kinshasa



Campus Vert

- General objectives: (1) Enhance food security and income generation
(2) Reduce deforestation from charcoal production
- Specific objective: Promote agroforestry to reduce food insecurity, charcoal production driven deforestation and climate change

Campus Vert – Results

- 11 ha of degraded savana converted into an agroforestry demonstration site

Multi-stage tree garden



Association cassava and local and exotic tree species



Campus Vert – Results

- Involvement and training of local women farmers

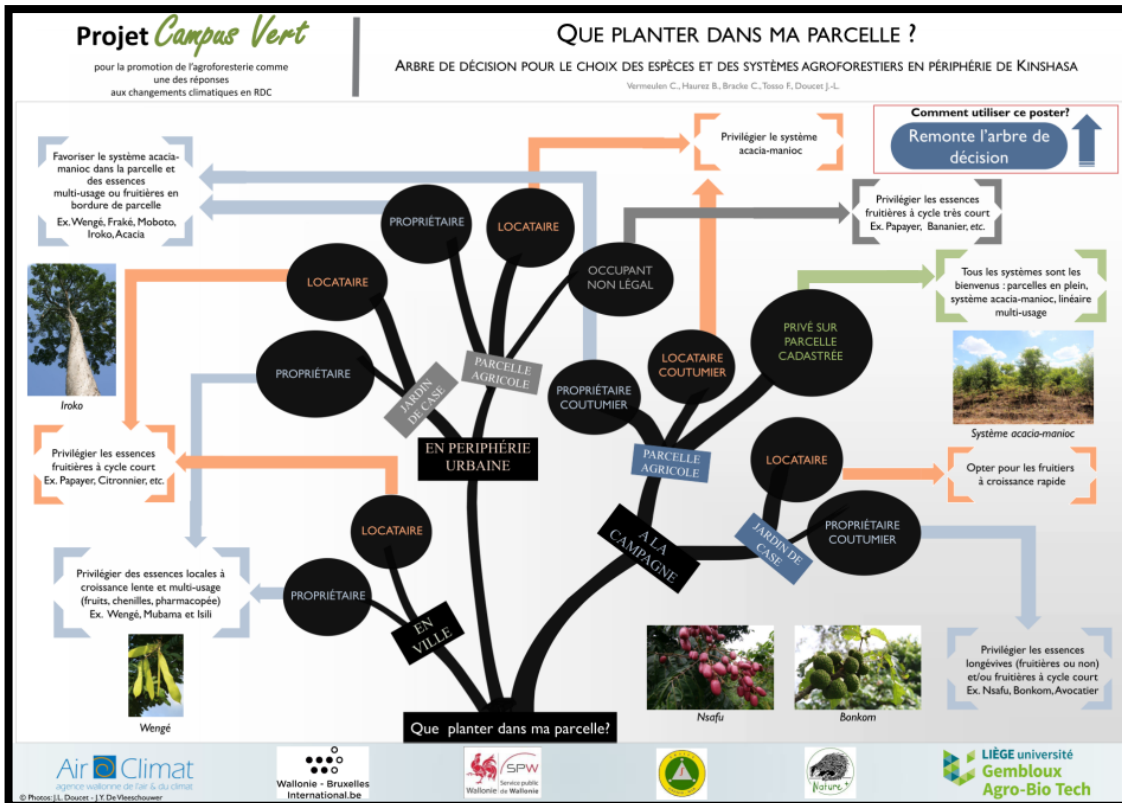


Campus Vert – Results

• Production of capitalisation tools

Decision tool to choose agroforestry system and species depending on land tenure

Agroforestry trees from DRC



Projet Campus Vert
mpo na kotobola misala ya kolona nzete (miete) elongo na milona lokola eyano na makambo etali mbougana ya climat

NZETEYA RDC
OYO EKOKI KOLONAMA ELONGO NA MILONA
Toso F., Hurez B., Long-Tipi E., Bracke C., Doucet J.-L.

Lolenge ya taungya
Kalana na nzete elango na milona mpo na kazangisa zamba. Ba mbula ya libata, milona mpo ndanda ezalaki kasalama elango na baloni ya mbula (ndakisa nganga, tamate, solo, pipili, apinard, bitakutaku mpe bango na bango). Baloni bangolaka biloka na bango tango yango ekomi na motaya

Milona oyo ewumelaka
Elango ya ba nzete oyo epesaka mbuma ya kola mpe mpya na na na yango ebangolaka mabele mpo ete milona oyo ewumelaka lokola cacao, café, mbala ya longo ebata molamu

Elanga ezingami na zamba muke
Lapanga oyo babakalaka libuele, mpe nzango nzango na yango baloni ba nzete oyo nyama alicha te lokola (Euphorbia, Wengé mpe Mulu)

Milona oyo elonami kati kati ya ba nzete
Elangi kalaba boye - nzete elonami na malongo. Bango kati kati na yango, milona esomi. Kaleka mingi na bisika tango ya mbula po ete mabele ebukana te. Mpe isusu, milongo ya ba nzete wana esangika mpo mayi ekuta na mabele. Saki ndanda nde elonami na esika yango, ba nzete wana ebangisama malamu mpe misa na yango ekokita malamu na na ya mabele pane kabangisama na yango moko. pe ya mabele esika ezami

Ngansi
Pentaclethra macrophylla
Nzete ya mboma, bakala mboma na yango esali ba baloni

Moboto
Ricinodendron heudelotii
Bakala mboma na yango. Nzete na yango bakalaka mboma mpe pane na yango ezalaki misa ebali

Nkambala
Milicia excelsa
Libata na yango bakalaka baloni mpe mpo na yango esali ba. Tangi ya epesaka mboma mpe na kuta

Nsafu
Dacryodes edulis
Pane na yango esali ba. Mboma na yango ekomi na kuta ebala mpe ezalaki mingi

Bonkomu
Myrianthus arboreus
Nzete oyo ebakalaki na kati ya bilongo ya mboma na yango esali bakala mpe bakalaka na yango. Esali na yango mpo na kuta

Mulu
Albizia adansoniifolia
Nzete ya Albizia adansoniifolia oyo ekoki kasalama mpo na longi ndalo mpe mpo na kuta biloko ndongo na ndongo. Epesaka mpe mpo na na na yango mpe misa na yango ezalaki malamu ebala

Wenge
Milletia lauranti
Nzete ya mboma, mpe libayi na yango bakalaka ba ba mboma...

Limba
Terminalia superba
Elangi ya mboma oyo ezalaki bakala ndongo na ndongo. Ezalaki mingi pane maloba pe pane kati kati

Batala lotenge nini balonaka milona katikati ya milongo ya ba nzete

Nzete **Milongo**

Wallonia - Bruxelles International.be

Air Climat
agence wallonne de l'air & du climat

SPW
Service public Wallonie de Wallonie

LIÈGE université Gembloux Agro-Bio Tech

Campus Vert – Results

- Information and awareness raising of administrations, civil society, local communities and students



Campus Vert – Recommendations

- Developing capacity building projects targeting local NGOs
- Gender matters



Agroforests of tomorrow in DRC

- Promoting local species
- Diversifying the species and products used in agroforestry projects



Agroforests of tomorrow in DRC

- Simplest is best!





Thank you for your attention !

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Pictures by Jean-Louis Doucet, Ernestine Lonpi Tipi, Hervé Mishidi, Régis Peltier, Hanns Seidel Stiftung