



BIOGROWTH DEVELOPMENT

Duurzaamheid en complexiteit van biomassa

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EXPERTS IN CHAIN ANALYTICS



INHOUD

Biomassa

- Complexiteit
- Vraag en beschikbaarheid
- Duurzaamheid

BioGrowth Development

- Wat doen we?
- Voor wie?
- Samenwerken?

Zoekterm "Biomass potential map"... 35 miljoen hits

Google BIOMASS Potential MAP

[ground biomass carbon density](#)
[global carbon](#)
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[forest biomass](#)
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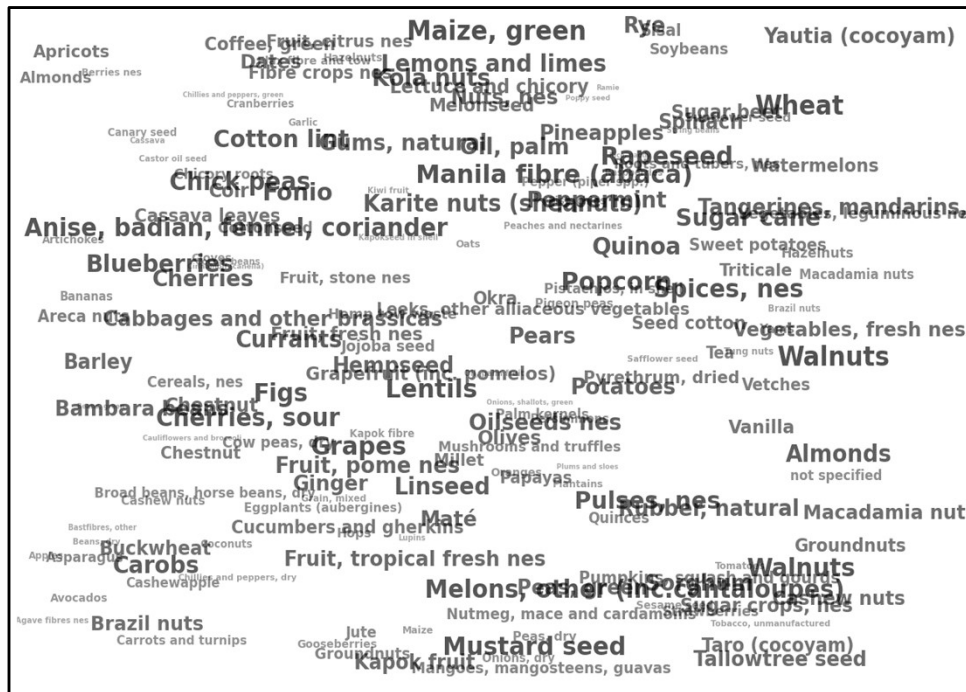
[Semantic Scholar](#)
PDF| Biomass Resource Assessment...

[ScienceDirect.com](#)
Figure 15: Sustainable wood supply potential for energy

[ScienceDirect.com](#)
Figure 6: State Wise Biomass Power Potential in India

[ScienceDirect.com](#)
Potential Biomass Resource from Energy Crops

BIOGRONDSTOFFEN | eindproducten en reststromen



LANDBOUW

hout

300 commerciële houtsoorten
(10,000 "lesser used")

The image shows a world map with green highlights on landmasses and a photograph of a stack of cut logs.

BOSBOUW

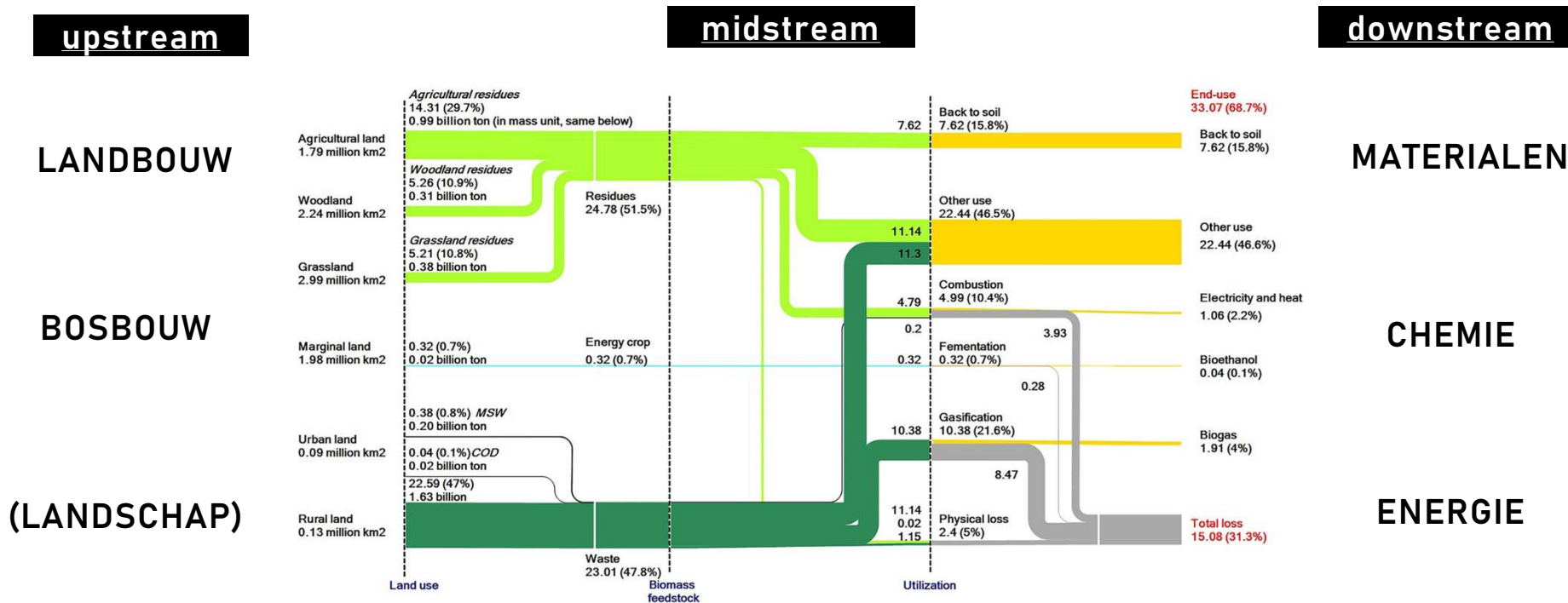
Biogronstoffen

- empty fruit bunches
- flower head
- fruit stalk
- fruit skin
- hulls, pods
- husks
- kernels
- shells
- seed coats
- seedcake
- bast fibres
- straw
- wood
- sawdust
- grass fiber
- etc.

AGROFORESTRY

+ BIOMASSA UIT "LANDSCHAP"

POTENTIEEL = F(type, kwaliteit, conversie, toepassing)



Technisch potentieel

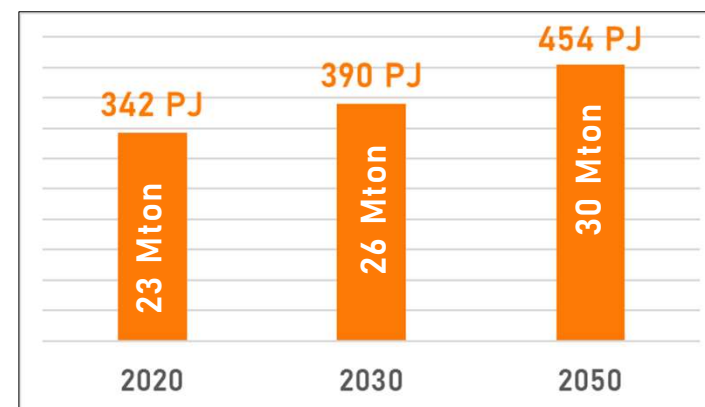
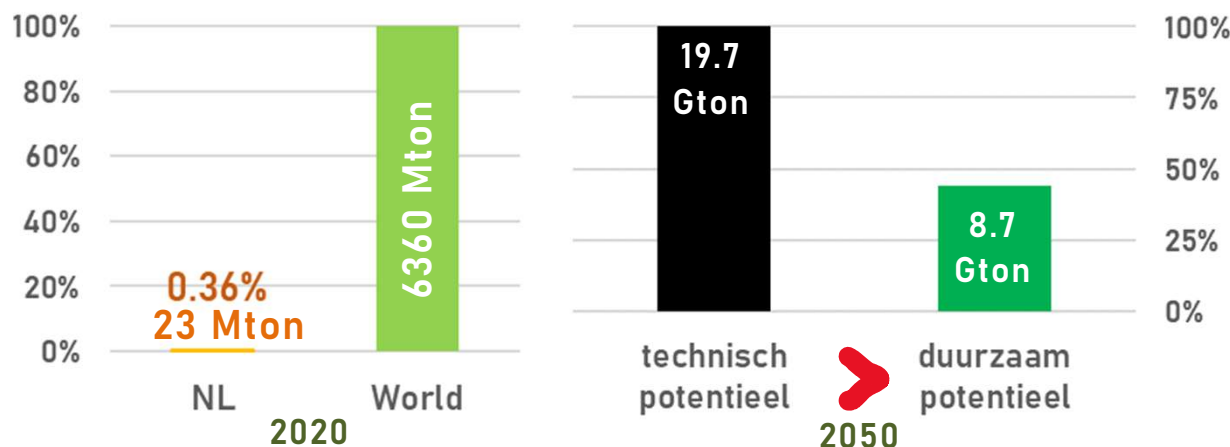
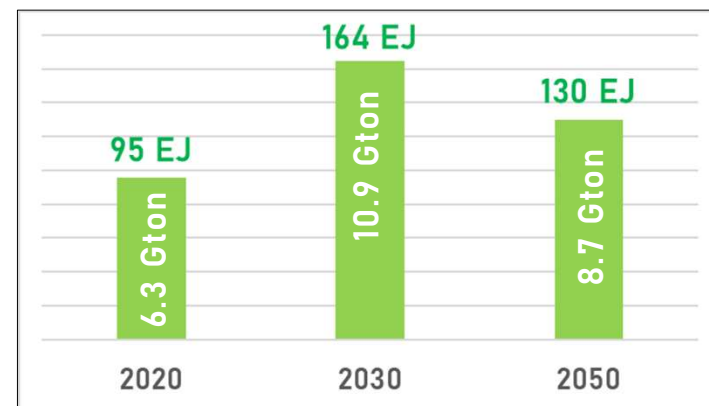
DOI: 10.1111/gcbb.12651

GEBRUIK versus BESCHIKBAARHEID (“POTENTIEEL”)

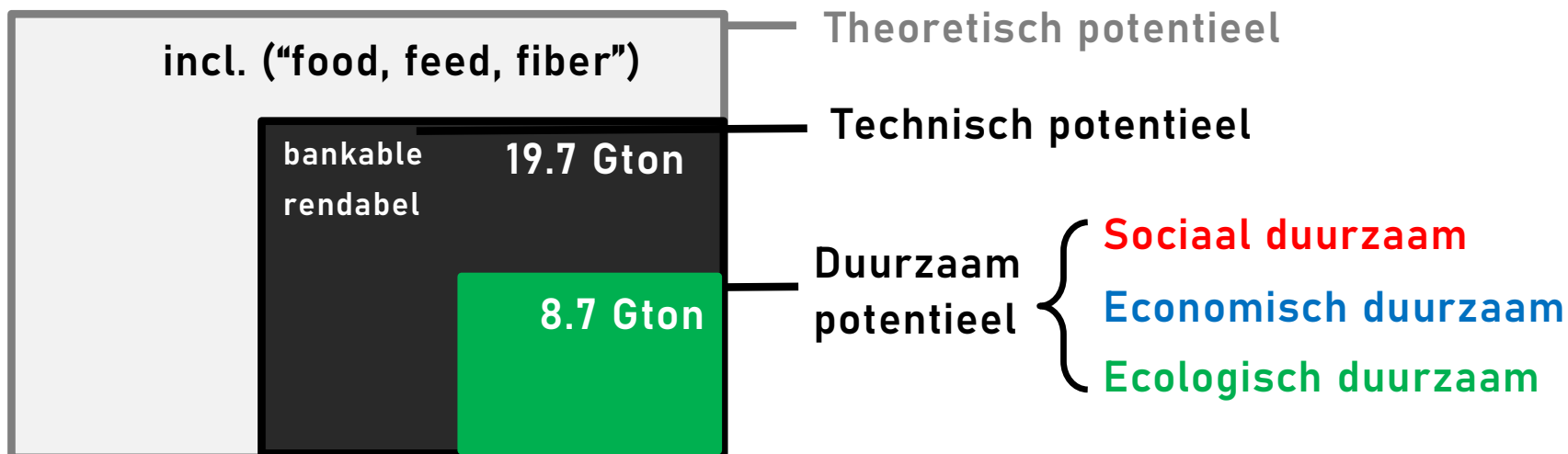
Tabel 1 - Overzichtstabel biomassabeschikbaarheid (mondiaal en EU28 in EJ/jaar, Nederland in PJ/jaar)

Bron: Bio-Scope rapport, CE Delft - 2020		Huidig gebruik	Beschikbaarheid 2030		Beschikbaarheid 2050		Eenheid
			'Duurzaam'	'Technisch-duurzaam'	'Duurzaam'	'Technisch-duurzaam'	
Mondiaal	Landbouw	30	70-105	Nb	82-85	217	EJ/jaar
	Bosbouw	65,4	43,2-59,3	Nb	38-45	78	EJ/jaar
	Totaal	95,4	113,2-164,4	Nb	120-130	295	EJ/jaar
EU28	Landbouw	2,3	6,4-15,5	24,2	5,5	18,9	EJ/jaar
	Bosbouw	7,6	8,5-14,2	16,3	11,8	11,8	EJ/jaar
	Totaal	9,9	14,9-29,7	40,5	17,3	30,7	EJ/jaar
Nederland	Landbouw	272	272-314	Nb	302-369	Nb	PJ/jaar
	Bosbouw	70	70-76	Nb	70-85	Nb	PJ/jaar
	Totaal	342	342-390	Nb	372-454	Nb	PJ/jaar

1 EJ = 1000 PJ = 10^{18} J = 278 TWh
 (= 67 Mton DS bij HHV van 15 GJ/ton)

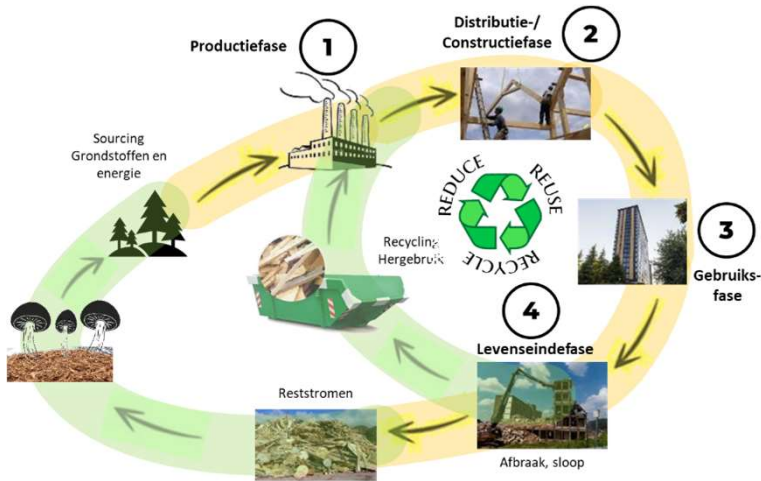


BIOMASSA BESCHIKBAARHEID (“POTENTIEEL”)



- PEOPLE** Gezond, eerlijk, rechtvaardig
- PROSPERITY** Duurzame energie, duurzame technologie, eerlijke handel
- PLANET** Biodiversiteit, klimaat, bodem, water

BIOLOGISCHE EN TECHNISCHE KRINGLOPEN (LCA)



Duurzaam landgebruik
ECOSYSTEEDIENSTEN
TRACEERBARE GRONDSTOFFEN

Duurzame processen

HERNIEUWBARE ENERGIE
CASCADERING
LOW EMISSION
GEEN AFVAL

END OF LIFE / EINDE LEVENSDUUR

✗	REFUSE / VERMIJDEN
>	REDUCE / VERMINDEREN
↻	REUSE / HERGEBRUIKEN
🔧	REPAIR / HERSTELLEN
♻️	RECYCLE, COMPOST / RECYCLEER, COMPOSTEER
⚡	ENERGY RECOVERY - ENERGIE RECUPERATIE
🗑️	LANDFILL - STORTEN

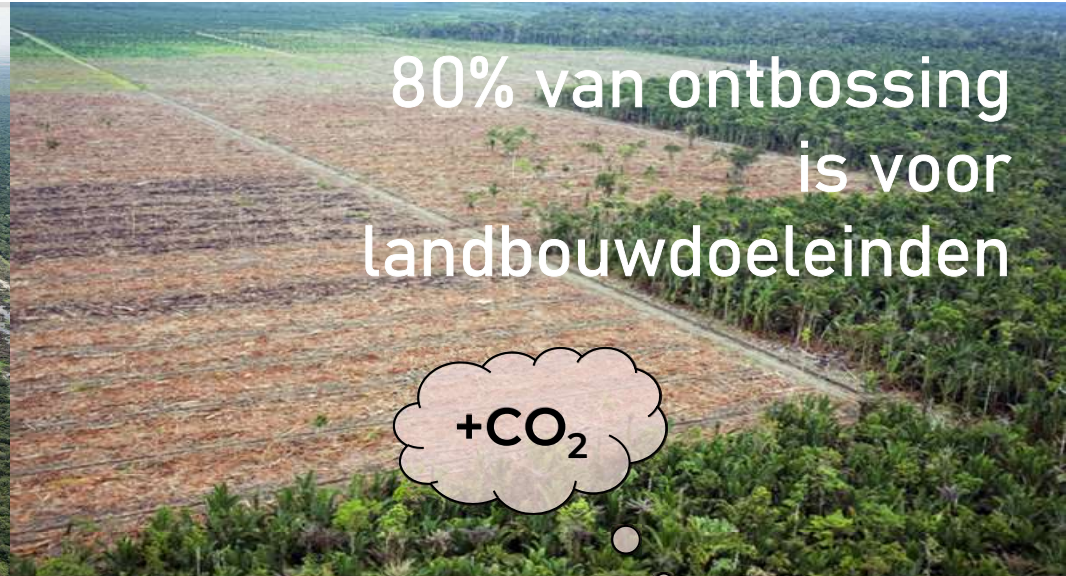
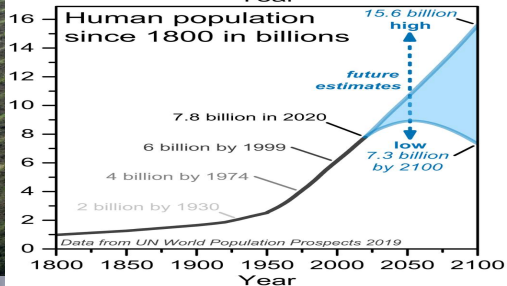
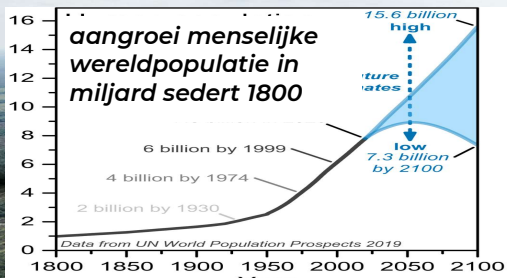
SYSTEEMDENKEN



"Ladder van Lansink"



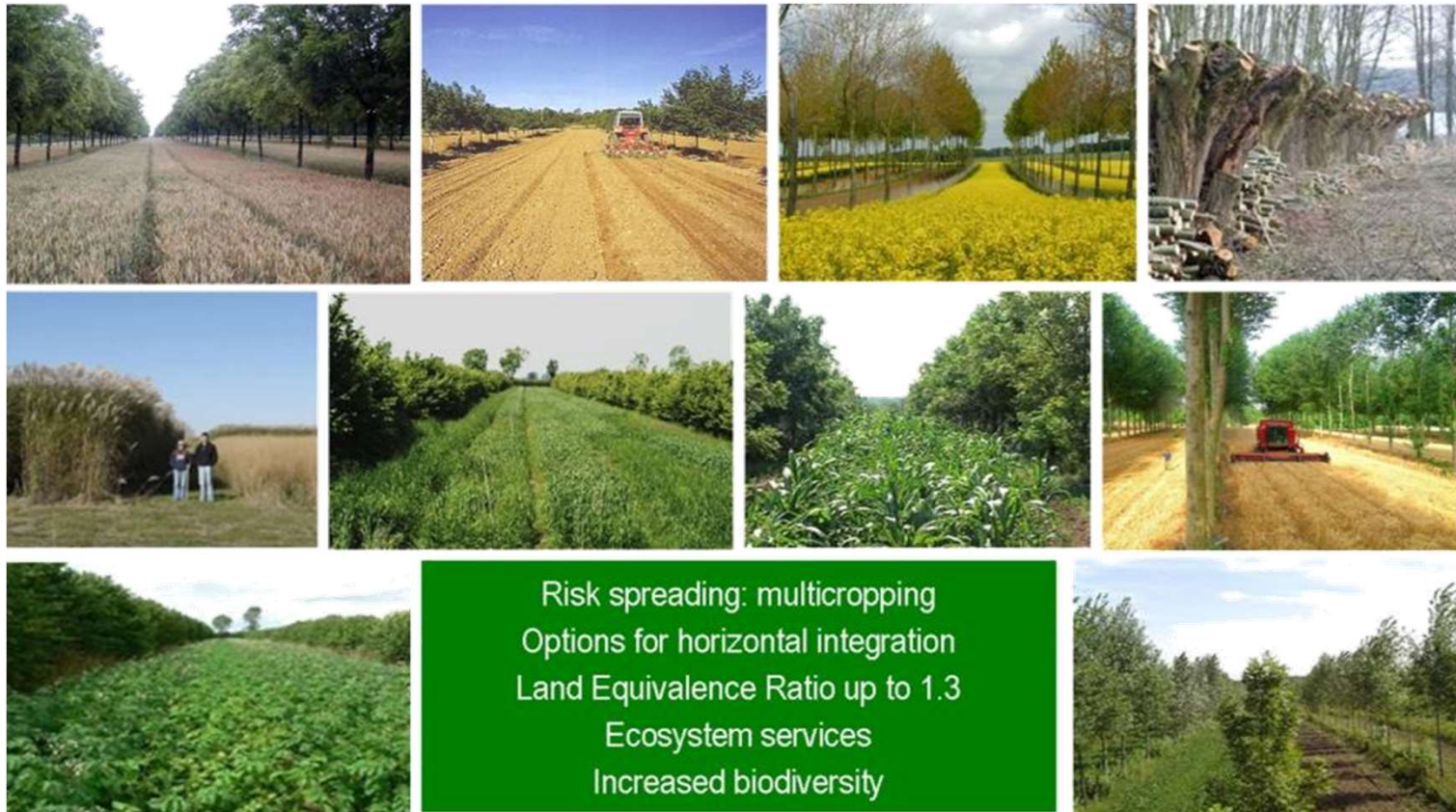
Biobased & Circulair
BIODEGRADEERBAAR
MODULAIR



+CO₂



AGROFORESTRY: land equivalence ratio > 1



Risk spreading: multicropping
Options for horizontal integration
Land Equivalence Ratio up to 1.3
Ecosystem services
Increased biodiversity

diversifiëring - horizontale & vertikale integratie

ONZE DIENSTEN

3 groepen

integrated approach from sustainable land use until bio-based end products



Land use systems

maximize carbon sequestration & natural capital



[Plant growth analysis and forecasting](#)



[Ecosystem services and impact analyses](#)



[Carbon storage in land use systems and end use applications](#)



[Impact analysis of land use change scenarios](#)



[Feedstock availability and quality analysis](#)



Bio-based value chain efficiency analyses



Risk assessments of bio-based value chains



Sustainability assessments for land use and feedstocks



[Preparation process for biobased materials certification](#)



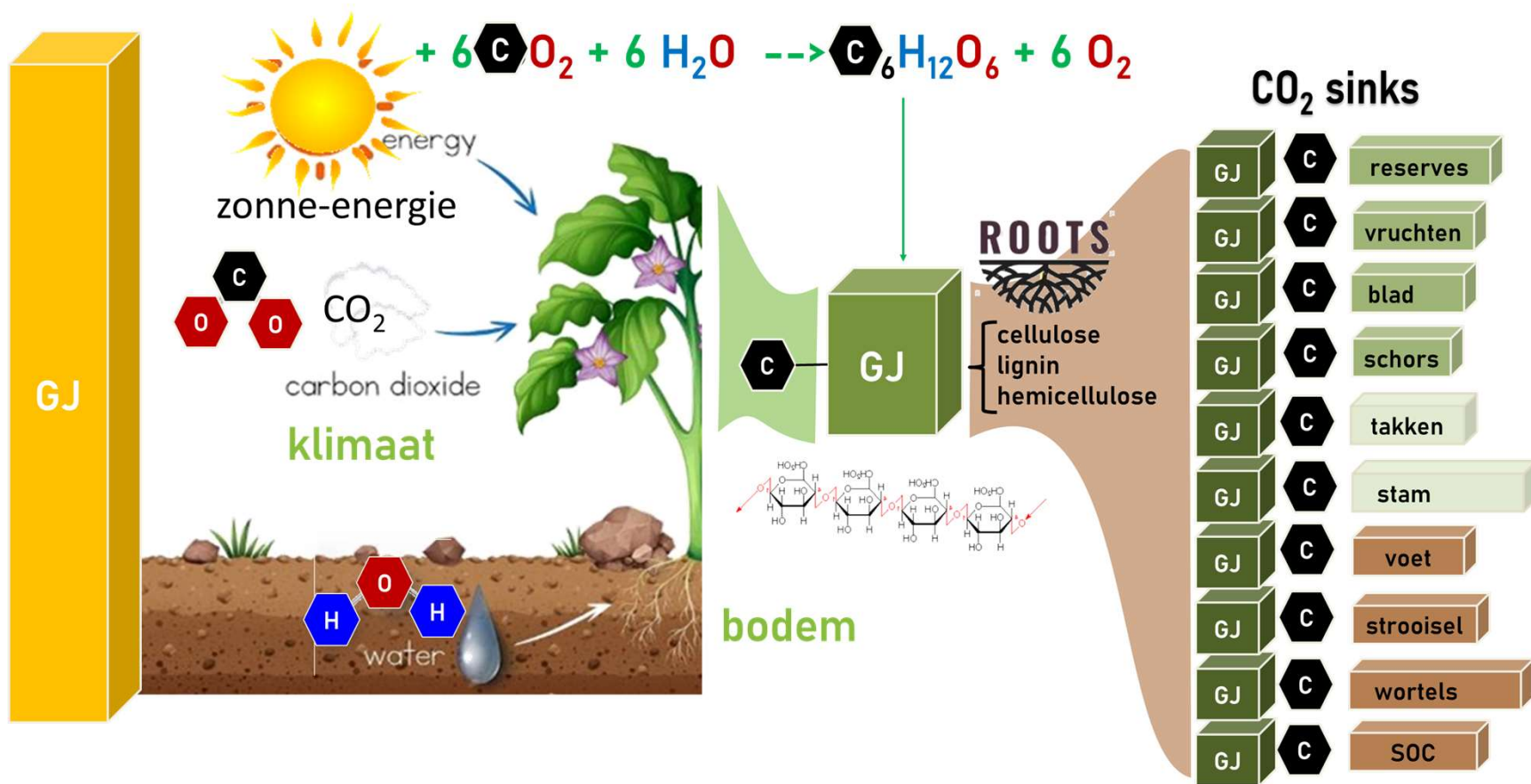
[Preparation process for carbon standard certification](#)

Support services for certification

carbon and biomaterials

Click links to learn more at our **homepage**

ECOFYSIOLOGISCHE GROEIPROCESSEN | C-ALLOCATIE



GROEI | ALLOMETRIE | VARIABILITEIT | BIODIVERSITEIT

Mirror > BioGrowth > TreesForAll > Madagascar > TFAResults > TFAfigures

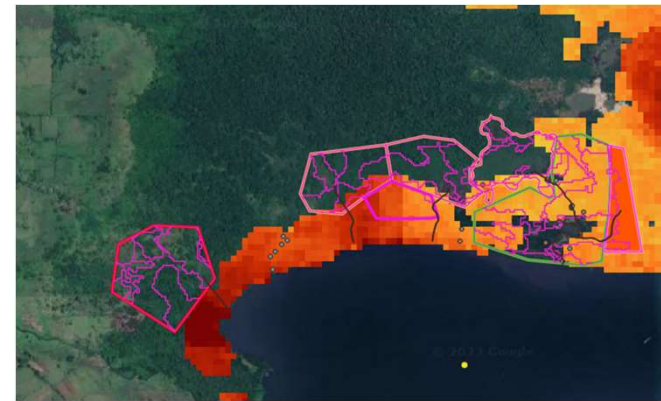
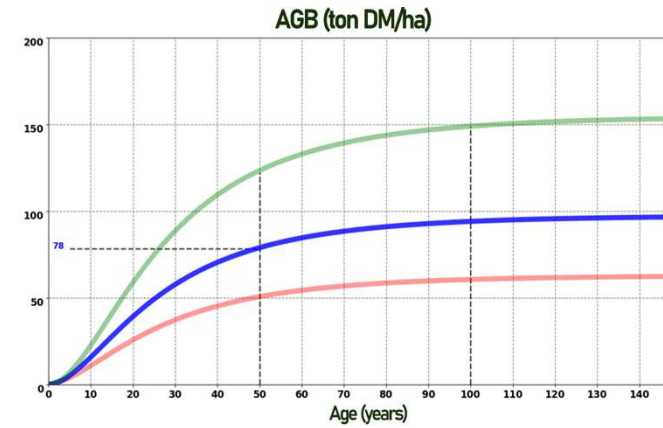
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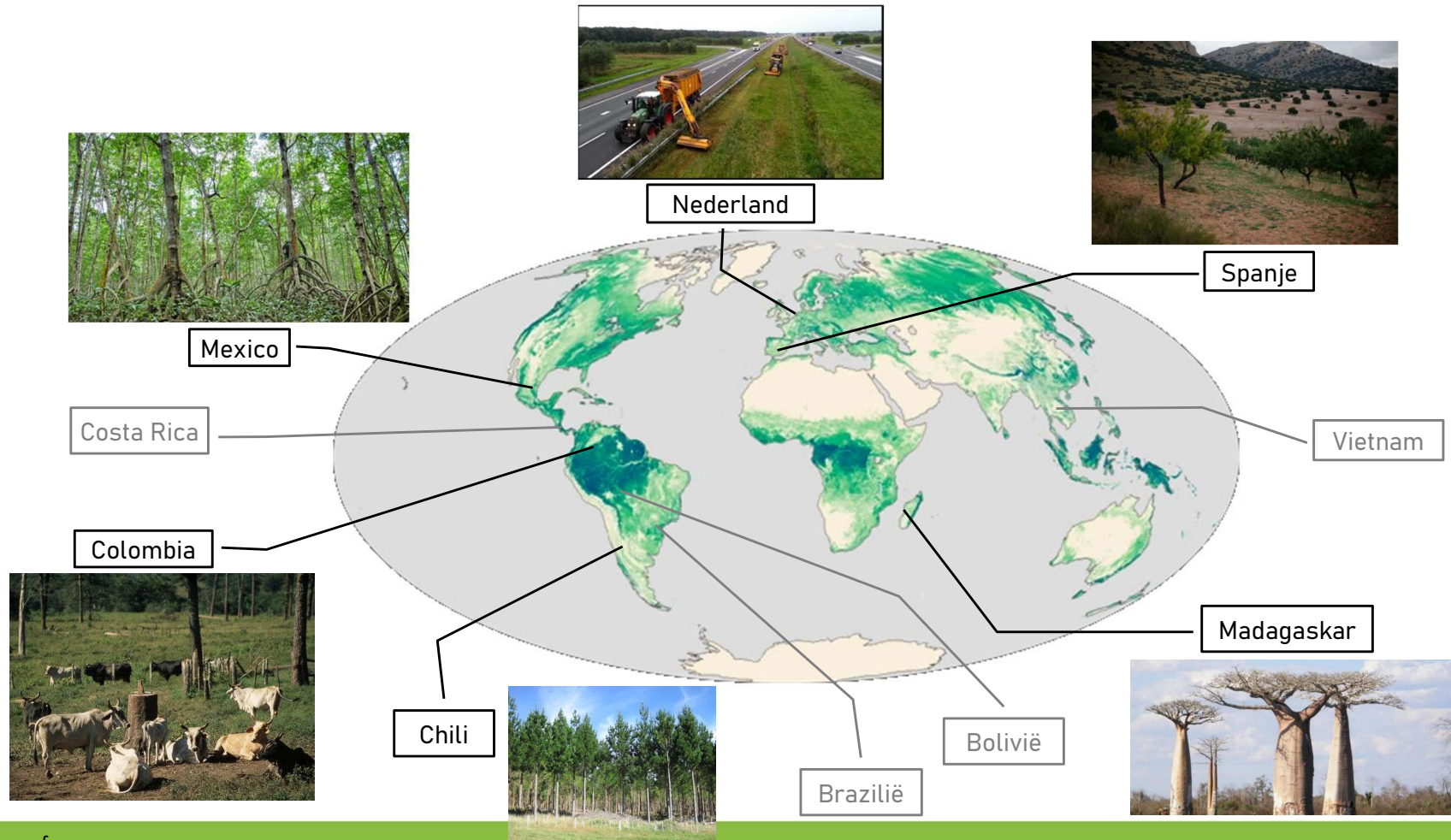
estigate

Notes

54%



BGD BIOMASSA- EN C-GERELATEERDE PROJECTEN



GET TO KNOW US

ONS TEAM



Kristiaan Tetteroo

CEO

Business development consultant and project manager with 15 years experience in consultancy and project management.



Rodrigo O'Ryan Blaitt

CEO BioGrowth LATAM

Involved in the forestry sector since 2003 in Chile and Uruguay, focused on the pulp wood and biomass sector and with recognition of the main forestry companies and traders around the world.



Dries Vansteenkiste

Chief Technology Officer

Bioscience Engineer holding a PhD in forestry sciences and wood technology with a +25 years track record in tree growth modelling, feedstock quality assessments and biomaterial R&D.



Arjen Bouterse

Operational Manager

Expert in sustainable technologies, project management, organisational management and information technology systems with +25 years of experience.

LATEN WE SAMEN WERKEN AAN HET
DUURZAAM MOBILISEREN VAN BIOGRONDSTOFFEN!

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