Plant production: biosphere – atmosphere interaction

Water + Carbon dioxide → sugars + oxygen

$$6H_2O + 6CO_2 = C_6H_{12}O_6 + 6O_2$$

plant decay:

$$C_6H_{12}O_6 + 6O_2 = 6H_2O + 6CO_2$$

The terrestial + the marine system:

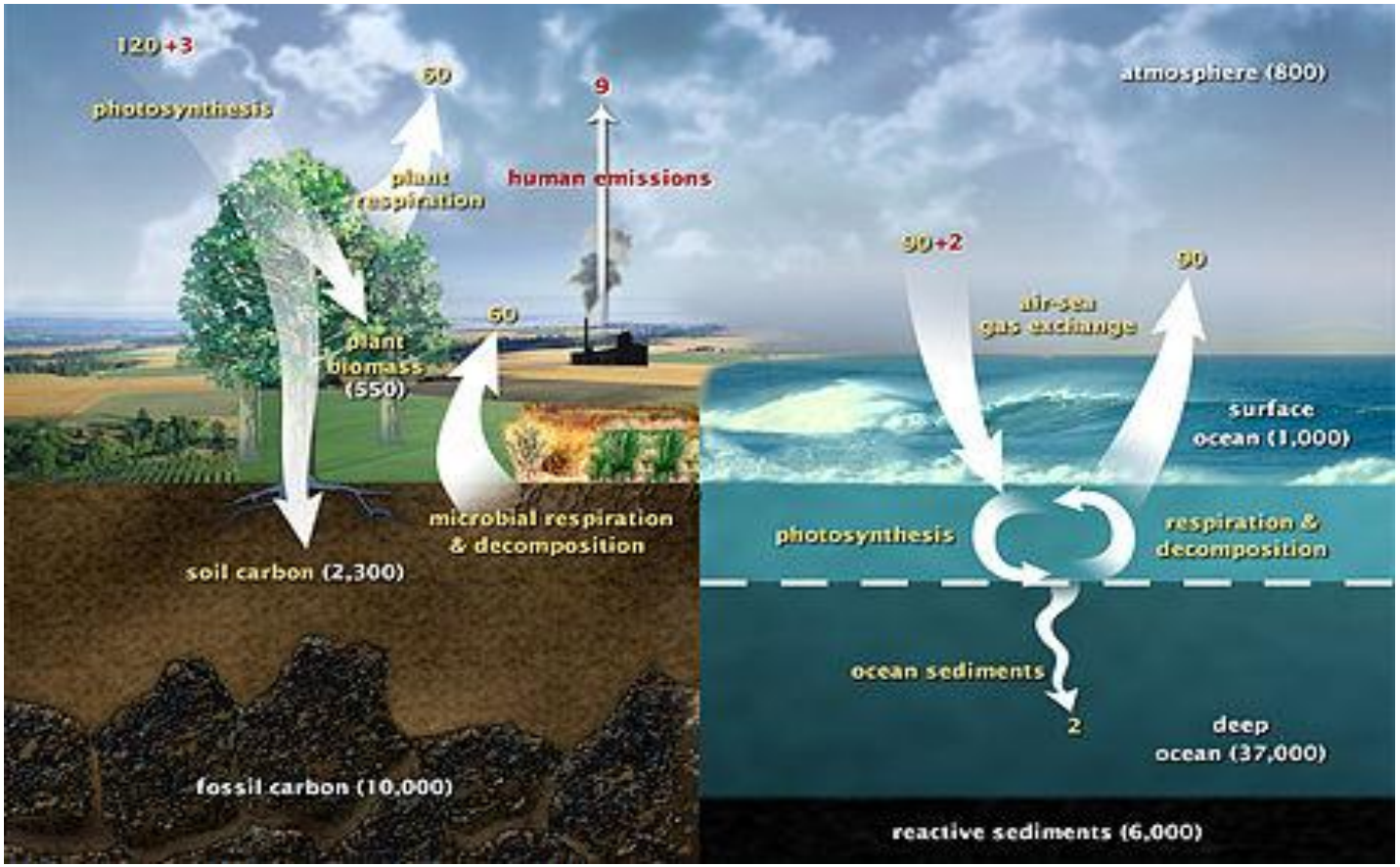
The annual carbon cycle extracts 120 + 90 Gton C from the atmosphere, and returns the same amount.

Emissions from human activities:

9 Gton C

Nature: 120 + 90 Gton C

Human emissions 9 Gton C



If we cannot reduce our own C emissions, perhaps we can reduce nature's emissions…

If we carbonise organic waste, we can immobilise the C for decennia or even ages.

If we store the carbonised material in the soil, perhaps we can improve the soil quality.

If we produce carbon with pyrolysis, we also produce gas and oil, this can substitute fossil fuels.

If this is possible, we create economic activities ánd reduce waste.

Win-win-win-win-win….

Can we do that? Will it work? Can we sequester **C** ánd improve our soils?

These questions are the basis of the project

BIOCHAR climate saving soils

The Interreg IVB North Sea Region Programme

European Union
European Regional Development Fund

BIOCHAR climate saving soils


BIO CHAR
climate saving soils
What is Biochar?
A win-win-win-win scenario
Project goals


BIOCHAR COMPETENCE CENTER
SWEDEN - HEADOFFICE
E432

BIOCHAR climate saving soils

End conference
Groningen, December 10
2013

The project Biochar: climate saving soils is a project which is funded by the Interreg IVB North Sea Region Programme.

11 partners from 7 countries share their biochar knowledge about standards, production, use and environmental impact.

www.biochar-interreg4b.eu

Frans Debets
Project manager
Groningen- The Netherlands

WELCOME in Groningen

12 hours non stop Biochar…

13 presentations

Production and use of biochar
Key functions and behaviour of biochar in the soil
Biochar and plant production

Poster and product presentations

Discussions, networking, future actions