Institute of Soil Science and Plant Cultivation State Research Institute

BioBoost

THE FEEDSTOCK POTENTIAL ASSESSMENT FOR EU-27 + CH IN NUTS-3

Rafał Pudełko, Magdalena Borzęcka-Walker, Antoni Faber

Introduction

The work was done within the BioBoost project (Biomass based energy intermediates boosting biofuel production). The overall objective of BioBoost is to pave the way for de-central conversion of residual biomass to optimised, high energy density carriers, which can be utilised in large scale applications for the synthesis of transportation fuel and chemicals or directly in small-scale combined heat and power (CHP) plants.

IUNG-PIB is responsible for work package 1, which aims to determine the economic feedstock potential of agricultural residues, organic wastes and forestry residues in EU27 + Switzerland on the level of NUTS 3.

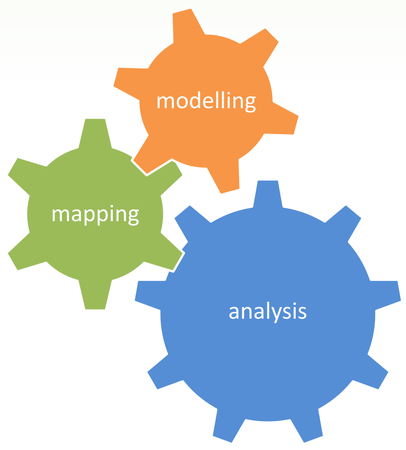
Database

Corine Land Cover map,
Open street map,
Natura 2000,

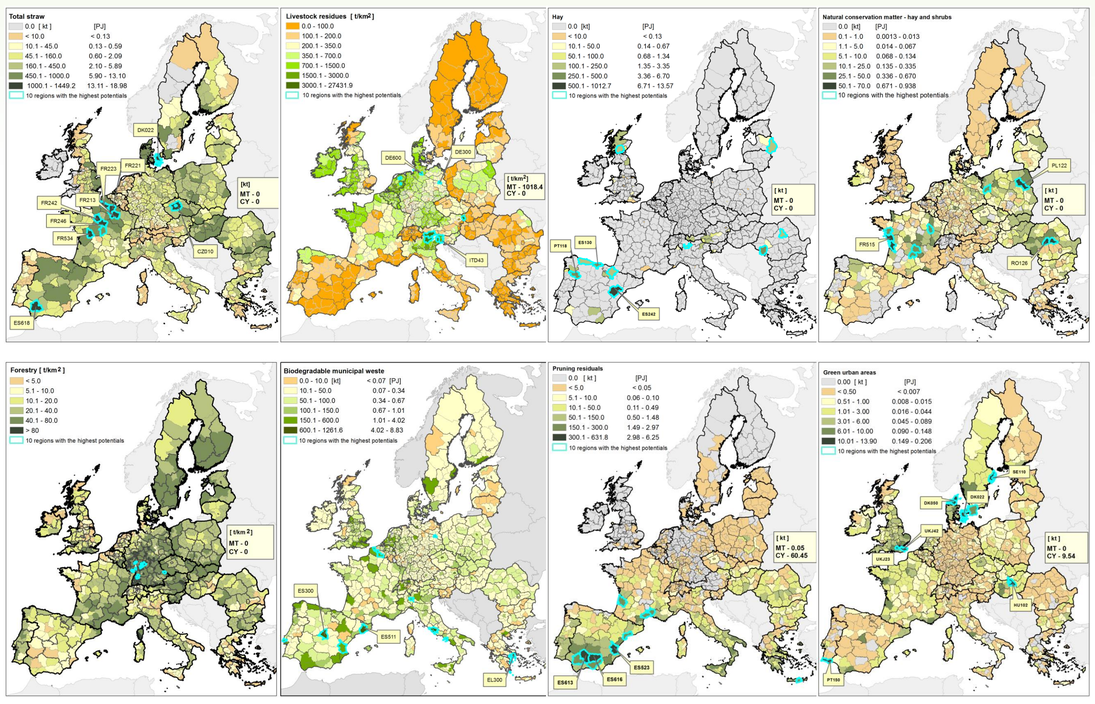
Literature review

Statistical data:
Eurostat,
ESRI data
European Environment Agency,
Organisation for Economic Co-Operation and Development,
Data on the Net Primary Productivity,
TBFR-2000

Processing



Results



The analysis of the biomass potential in the EU-27 and Switzerland along with their possible use for energy purposes were calculated for the following types of biomass were done:

- agricultural (straw, orchard's pruning, hay) and animal residues (manure surplus),
- forestry residues,
- natural conservation matter (urban maintenance of green areas, hay and shrubs),
- roadside vegetation,
- urban and industrial waste (biodegradable municipal waste, selected waste from the food and wood industry).

Fig. 1. Partition of biomass resources

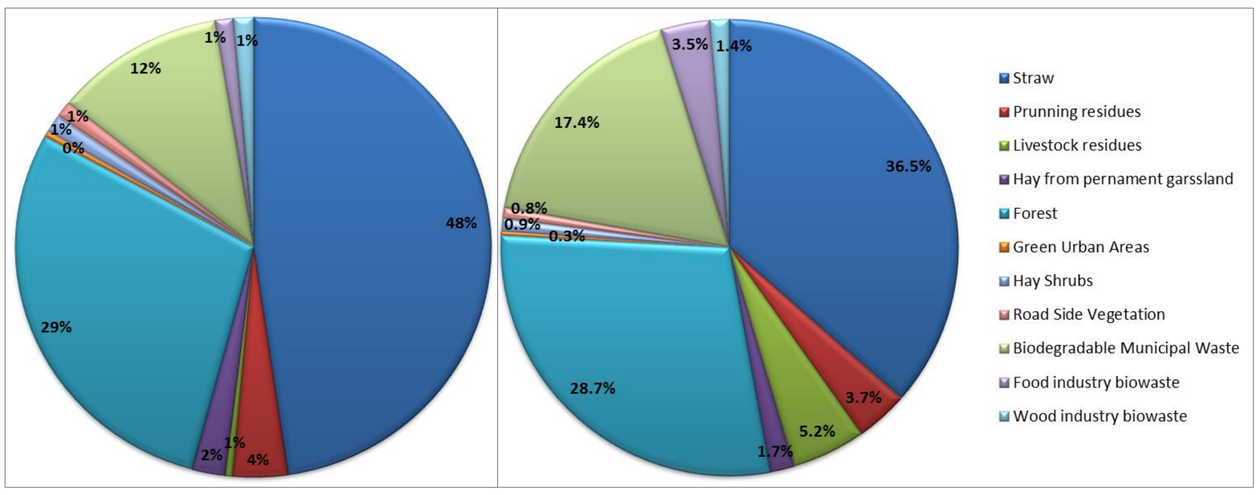
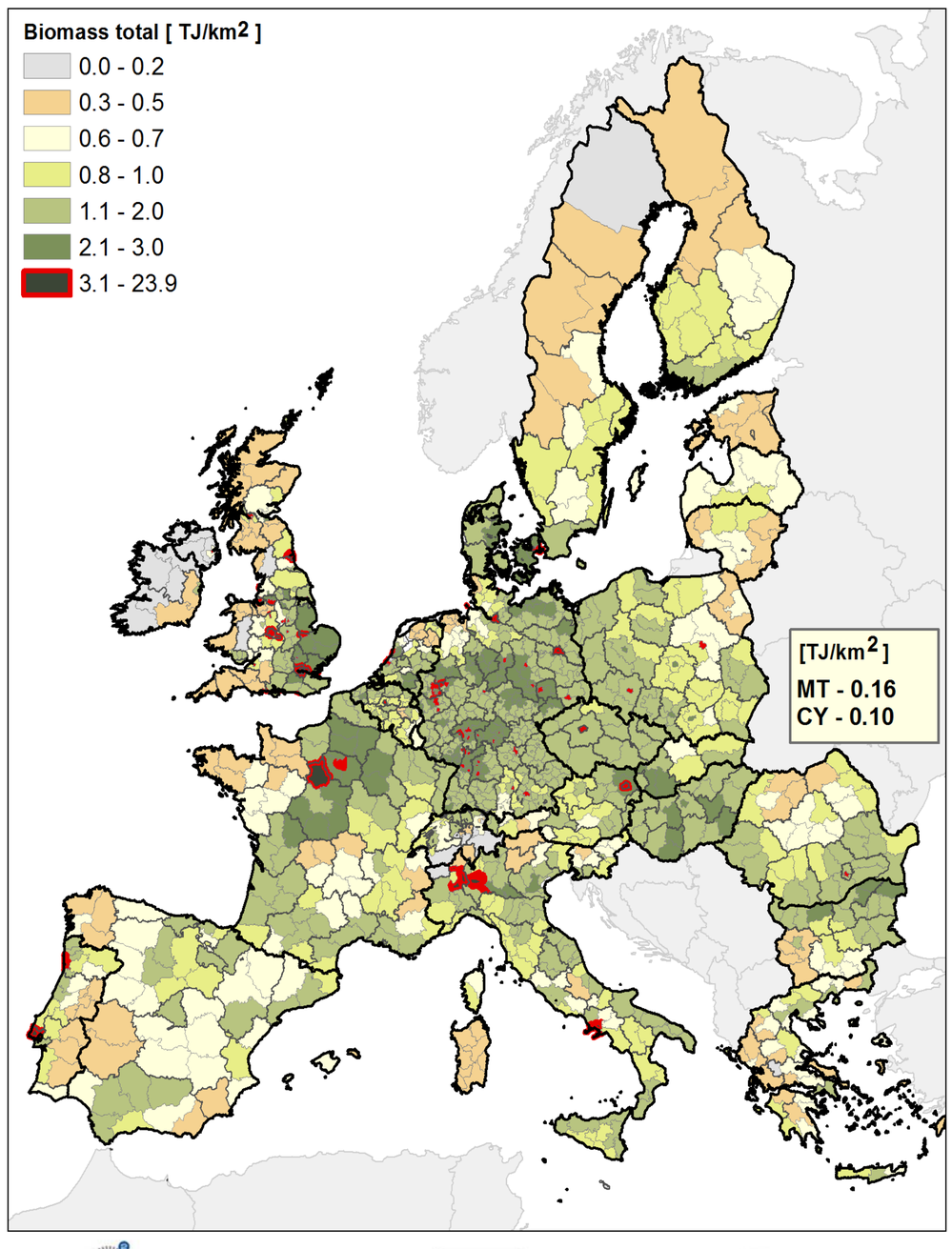


Fig. 2. Energy potentials (density) of biomass in NUTS-3



Project Facts

THEME, ENERGY.2011.3.7-1:Development of new or improved sustainable bio-energy carriers.
Project acronim: Bioboost
Project reference : 282873 CP in FP7
Coordinator: Karlsruhe Institut für Technologie (KIT)
Start: 01/2012
Duration: 42 month
Budget 7.3 Mio €
Funding: 5.1 Mio €
Beneficiaries: CERTH, AVA-CO2, CHIMAR, TNO, GRACE, IUNG, FHOÖ, NESTE, SYNCOM, DSM, USTUTT, ENBW
Web page: www.bioboost.eu

Rafał Pudełko
Zakład Agrometeorologii i Zastosowań Informatyki
rpudelko@iung.pulawy.pl

Institute of Soil Science and Plant Cultivation
Czartoryskich 8, 24-100 Puławy, tel.: +48 81 886 34 21, fax: +48 81 886 45 47
iung@iung.pulawy.pl, www.iung.pulawy.pl