



BIOEUPARKS

PROJECTMEETING IN KOZJANSKO PARK

DINPD



**Duna-Ipoly
National Park
Directorate**



Co-funded by the Intelligent Energy Europe
Programme of the European Union



State of the art

Priority:

Removal of invasive species, own management – too many small LSCs, slow process

BM from areas managed by the forestry companies involved to ensure fulfillment of the indicators - priority to removal of non native species (restructuring the forests) and maintenance activities, logging residuals

DINPI administrative area: 1355000 ha

Nature conservation management, removal of invasive species on 14 sites – mostly managed by the DINPD itself – were examined: 1456,32 ha

originally planned project area: 3840 ha

DINPI management area: 13000 ha

protected area (forestry managed area): 128000 ha

Pilisi Parkerdő (PP Zrt) Forestry Company area: 57000 ha

pilot supply chains working, biomass calculation, setting up supply chains ongoing

next steps: mapping existing capacity and plans of further new investments +



European Union
Programme of the European Union

Running pilot supply chains

| Name of the LSC | Legal act | Partners | LSC Type* | Started (Date of the contract/ MoU) | Biomass | | | Territory |
|---|--|---|-----------|-------------------------------------|---|----------------------|-----------------------|-----------------|
| | | | | | kind | ton/year | MWh/year | ha |
| 1. Sas-hill | Own consumption | Sas-hegy Visitor Center (DINPD) | 1 | 2013 | shrub -> woodchips | 5 | 15 | 15 |
| 2. Ocsa Residential | MoU+Contract of Sale/Invoice | Local inhabitants (39) in Ócsa region | 2 | 2013/2014 (15., 20. Jan.2015) | deciduous forest -> fire wood | 133,65 | 400,95 | 17,55 |
| 3. Ocsa Pasta Factory | Contract of Sale | Hungaropasta kft. | 2 | 2014 | deciduous forest | 110 | 330 | |
| 4. Godollo | MoU (Provided in the frame of Expert contract) | HM Currus Zrt. - BALTIM Kft. - Pilisi Parkerdő Zrt. | 3 | 2014/2015 (24.Jan. 2015.) | deciduous forest -> woodchips | 589 | 1770 | 3700 |
| 5. Visegrad | MoU (Provided in the frame of Expert contract) | Hotel Silvanus - Eőry és Tsa Kft. - Pilis Parkerdő Zrt. | 3 | 2014/2015 (24.Jan. 2015.) | deciduous forest +grassland, shrub -> woodchips | 1045 | 3135 | 3900 |
| 6. Central Hungarian Region (PPZrt Residential) | 29 MoUs (Provided in the frame of Expert contract) | Locals (represented by 29 Municipalities) - Pilisi Parkerdő Forestry Ltd. | 3 | 2014/2015 (23 Apr. 2015) | deciduous forest | 5400 | 16200 | 64500 |
| All together | | | | | | 7283 ton/year | 21851 MWh/year | 64533 ha |

Type 1: DINPD is the only actor in the chain from biomass production till use of the heat energy.

Type 2: DINPD is the provider of biomass, conversion, transport, storage and heat production is done by the end-user.

Type 3: Pilisi Parkerdő Forestry Ltd. is the provider of biomass.

Supply chains in preparation

these supply chains are not included in the reported results (yet)

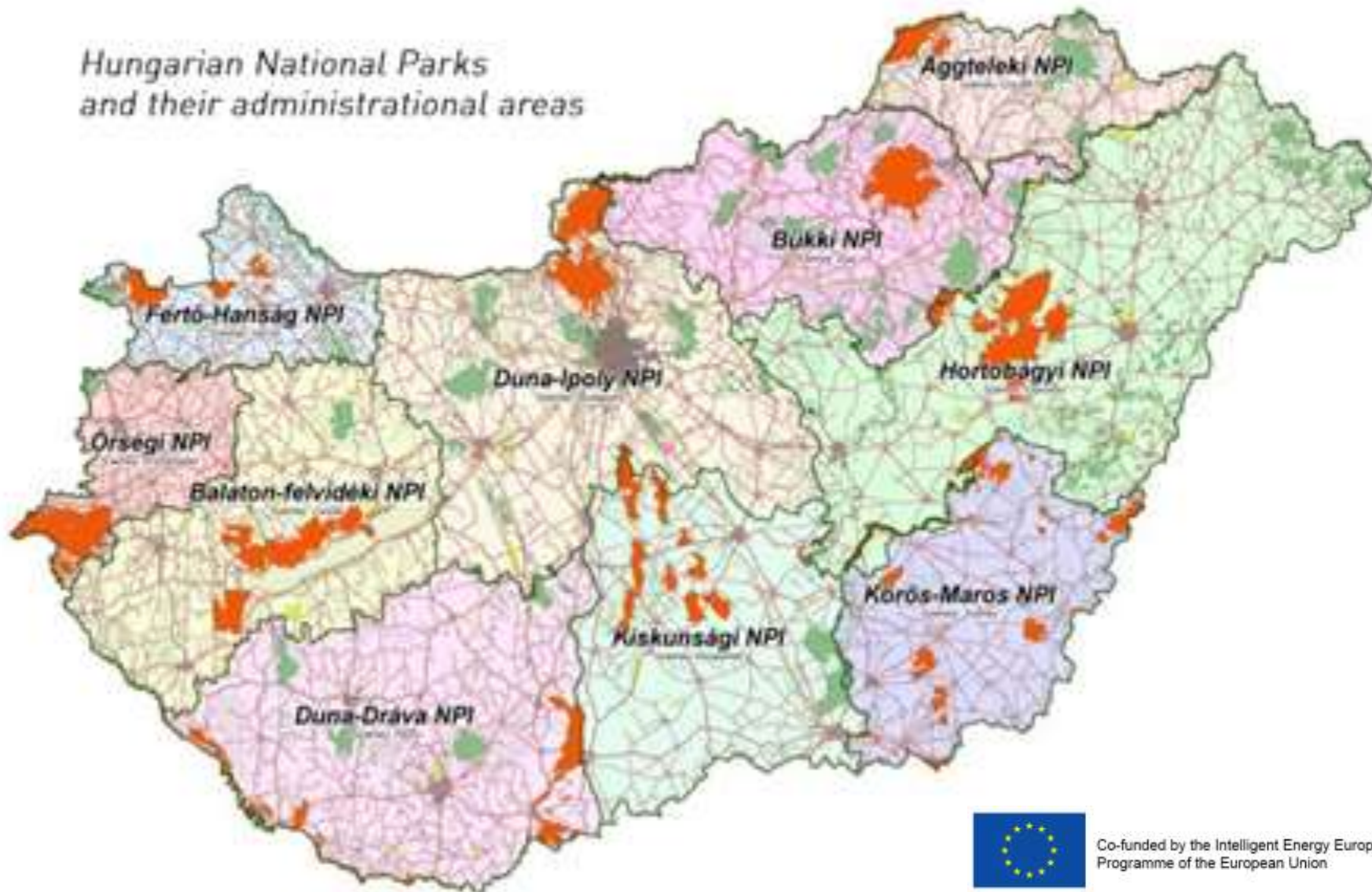
| Name of the LSC | Legal act | Partners | LSC Type | Started (Date of the contract/ MoU) | Biomass | Territory | Capacity |
|--------------------------------------|------------------------------------|---|----------|---|--|--|----------|
| I. Borzsony-Ipoly Valley residential | Invoice (selling) | Local inhabitants | 2 | 2014 | deciduous forest -> fire wood | Börzsöny, Ipoly Valley | |
| II. Esztergom | own consumption | Animal farm (DINPD) | 1 | installation of heater in 2015 Summer | deciduous forest -> fire wood, woodchips grassland, shrub -> woodchips grassland -> hay, wetland -> reed | Esztergom, Komárom (Pilis, Gerecse, Danube islands) | 68kW |
| III. Pilismarot | Application, MoU, Contract of sale | Pilismarót Municipality, Megujulo Megoldasok, DINPD/PP Zrt. | 2 or 3 | In 2014 application submitted for financing new heater | | Pilismarót (Börzsöny, Danube floodplain) | |
| IV. Leányfalu | Application, MoU, Contract of sale | Fejlődő Leányfaluért Szociális Szövetkezet, Megujulo Megoldasok, DINPD/PP Zrt. | 2 or 3 | In 2014 negotiations | | Leányfalu (Pilis, Danube floodplain) | |
| V. Taborfalva | Application, MoU, Contract of sale | Természeti Erőforrások Szociális Szövetkezet, Megujulo Megoldasok, DINPD/HM Forestry Ltd. | 2 or 3 | about possible development (application for funding) | invasive removal | Táborfalva | |
| VI. CHP | Application, MoU, Contract of sale | Megujulo Megoldasok + municipalities + forestry companies/DINPD | 3 | Negotiations were carried out, application in preparation | | ?? (Esztergom, Pilis, Ocsa, Ceglédbercel, Albertirsa, Pilisszentlélek) | 7*50 KW |



Basic data



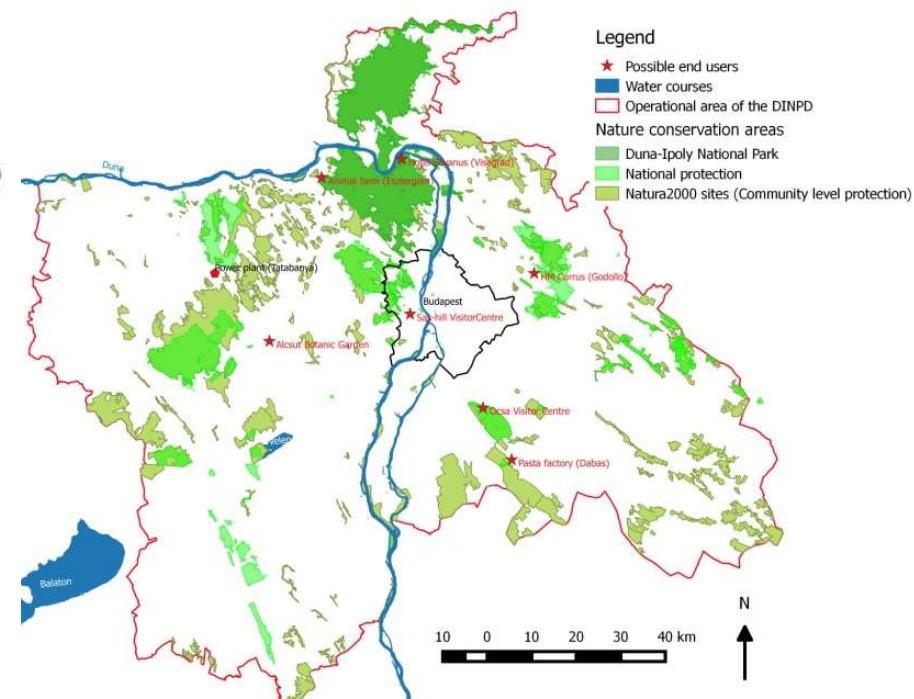
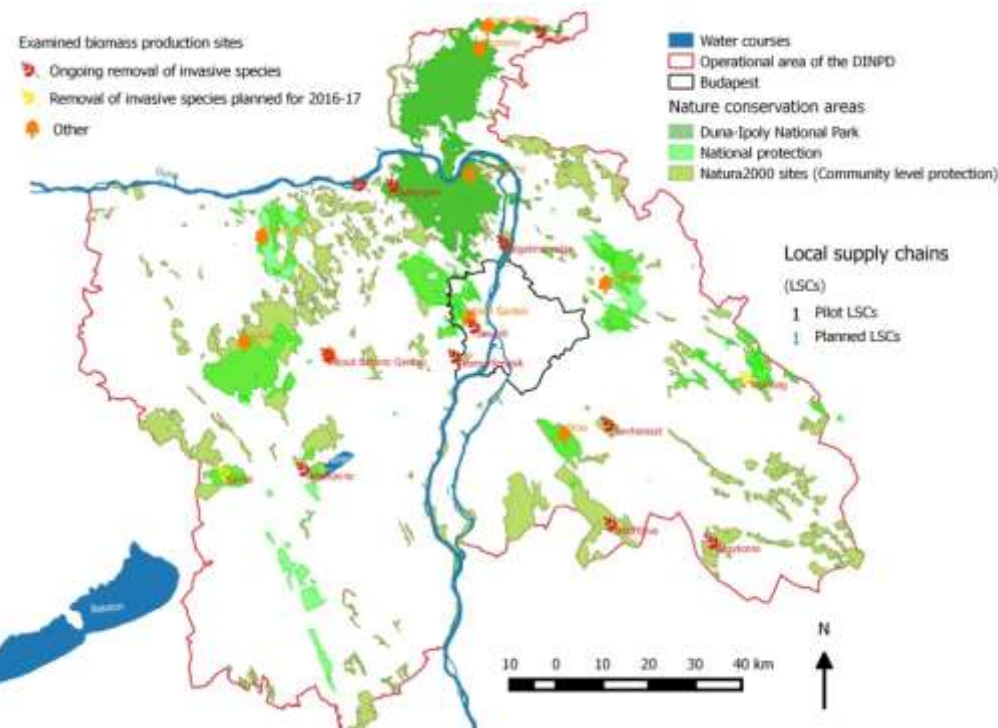
*Hungarian National Parks
and their administrative areas*



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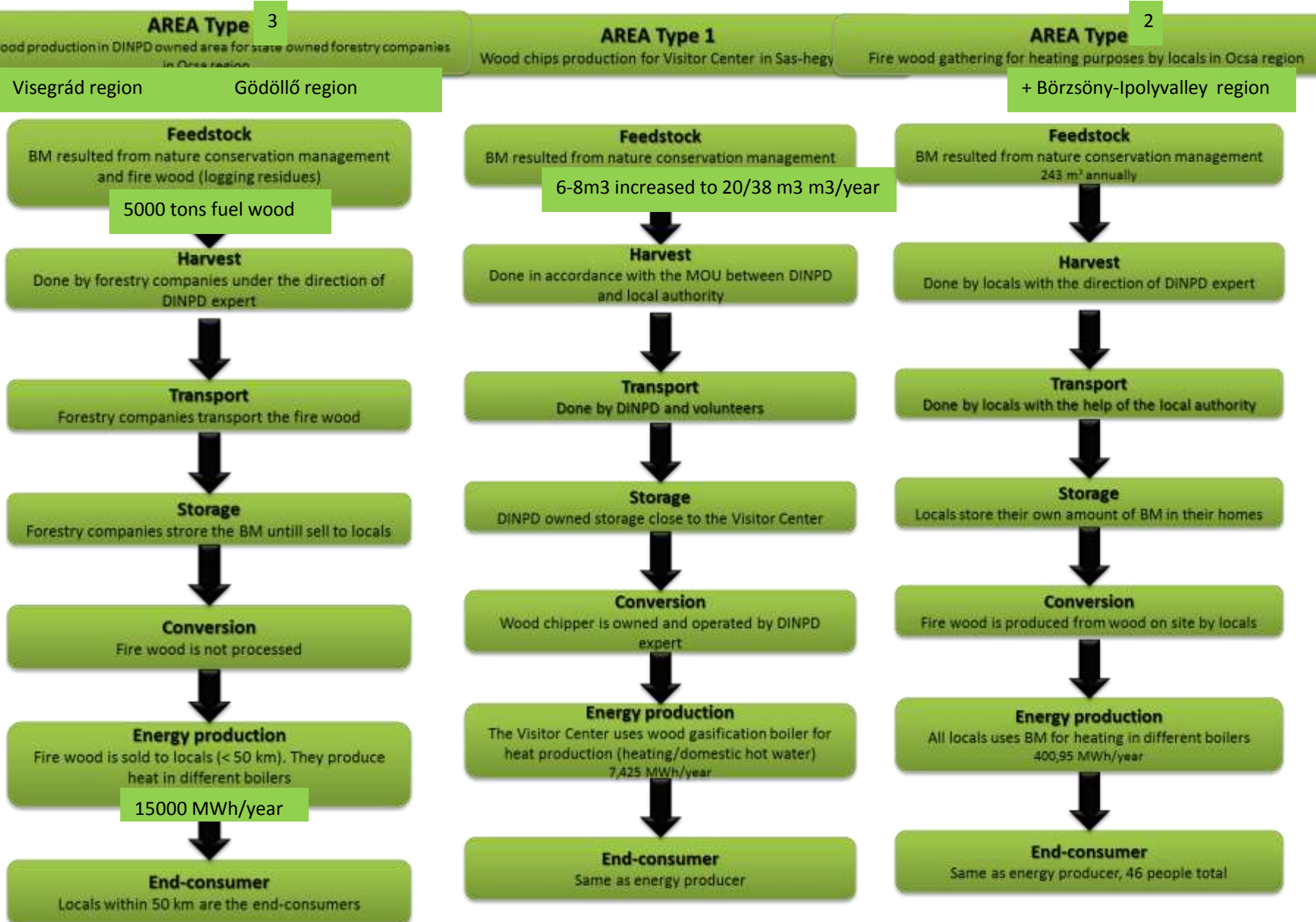
Project sites



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| | 2013 | 2014 | 2015 | 2016est | Goal |
|---|----------------------------|---------------------------|-------------|-------------|-------|
| Number of started pilot supply chains | 2 | 3 | 6 | 7 | 1 |
| Biomass Produced for LSCs (Ton/year) | 151 | 319 +200* | 7141 | 7341 | 5082 |
| Electrical power MWh/year | 0 | 0 | 0 | 0 | |
| Thermal energy MWh/Year | 186 | 764 +480* | 15939 | 16419 | 15247 |
| Renewable Energy production (MW/year) | 452 | 956 +600* | 21424 | 22024 | |
| Primary energy savings (TOE/year) | 16 | 66+24* | 1371 | 1411 | |
| Reduction of GHG (Ton CO2/year) | 61 | 250 +157 | 5209 | 5366 | |
| How many actors are directly involved in the pilot supply chains | 1 | 30 | 74 | 75 | |
| How many local citizens have been reached (awareness events+contracts/MoUs) | 240 (+41) | 29 | 11 | | |
| How many stakeholders were involved overall (including awareness events, roundtables and meetings (without 5.5.2 ad-hoc meetings) | 351 | 47 | 28 | | |
| 5.5.2 ad-hoc meetings | | | | | |

Basic types of the local supply chains





Pilot Supply Chains

Type 1 and 2



Sas-hill Visitor Center - chips

**Ocsa: private end-users – fuel wood
similar started in Borzsony-Ipolymente
area**

Ocsa: small pasta factory as enduser



Esztergom: animal farm



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Pilot Supply Chains

Type 3



Pilisi Parkerdo Zrt (Forestry Comp.)

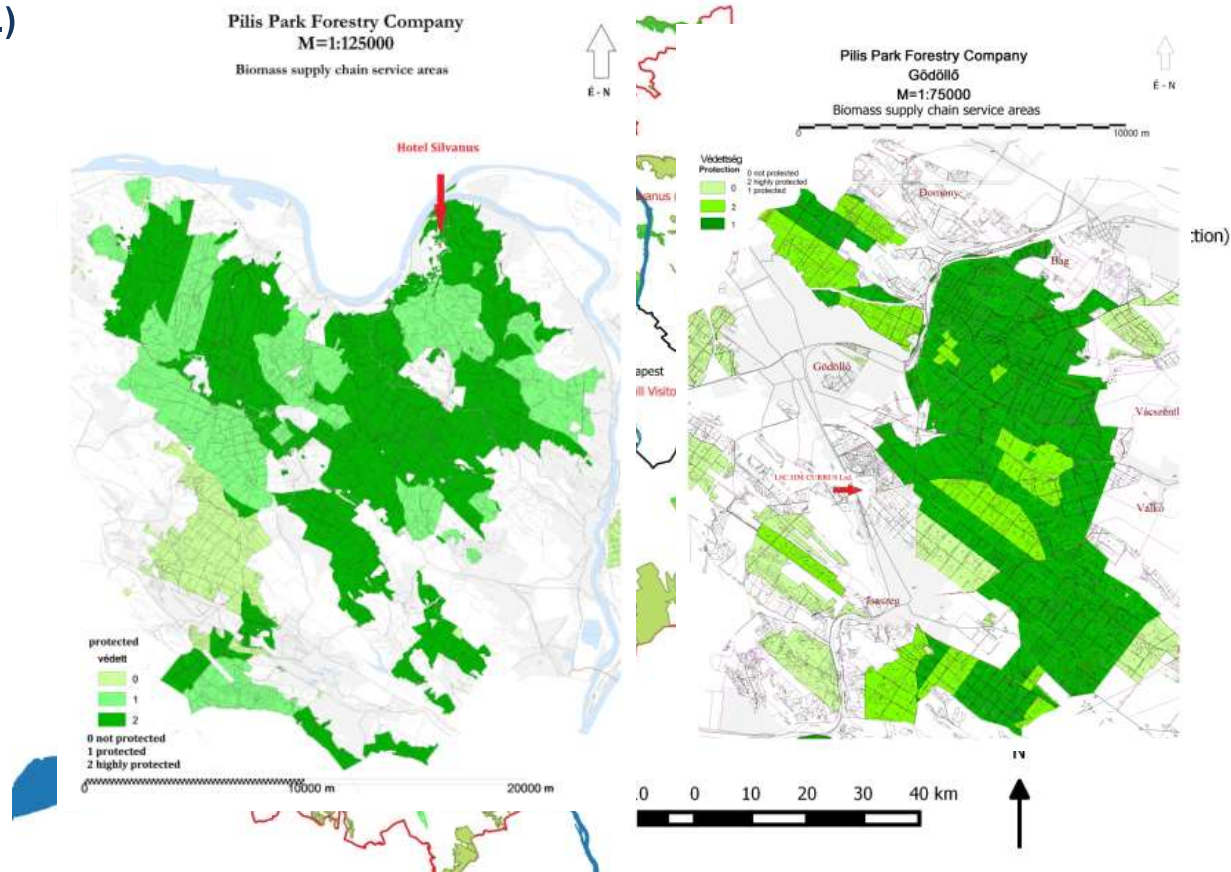
Small biomass plants:

Hotel Silvanus



HM Currus

Residential

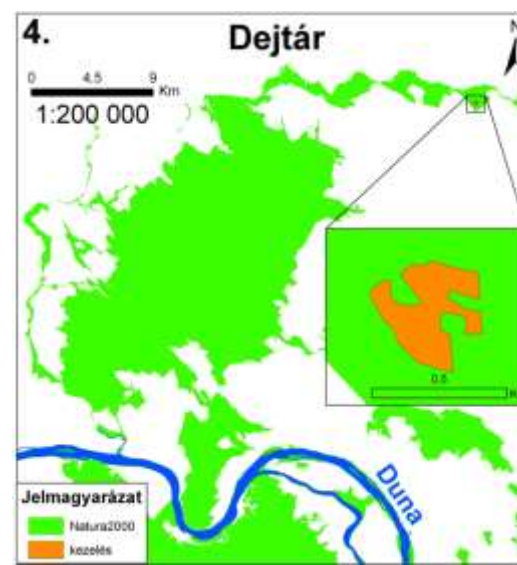
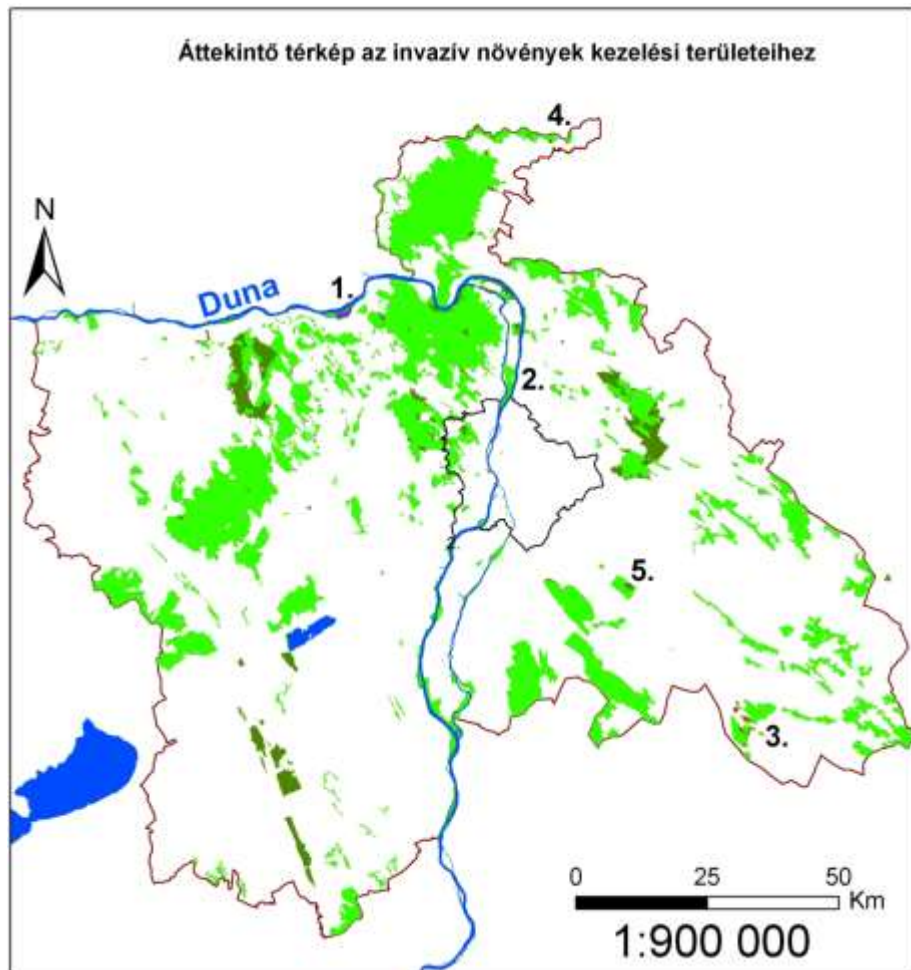


Removal of invasive species



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mapping is still going on

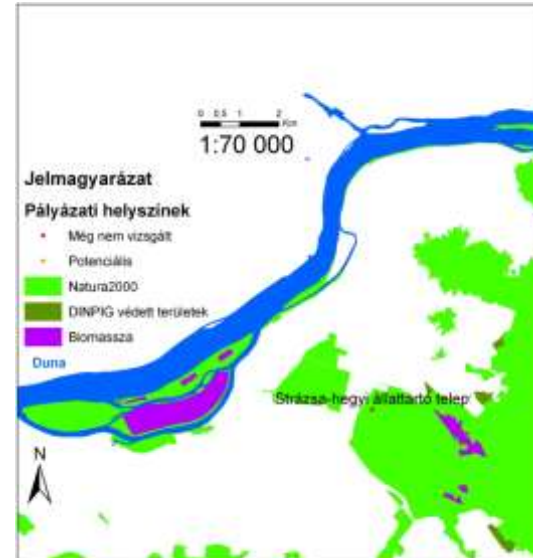


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New investments

DINPD Esztergom farm –
new biomass heating is installed
amount of the available BM should be assessed
more detailed – experts subcontracted

Application of the Pilismarot Municipality
- No decision yet



Further applications (by Megújuló Megoldások Kft.) waiting for fund opening

BioESCO Virtual Power Plant 6MW – study was developed, to be presented at
workshops and conference, organization of forums planned



WP2, WP4, WP5



Social conflicts: avoided by the project strategy!

Main target groups: local inhabitants, local municipalities, NPs

workshops: planned connected to other events

1st: Dömös

based upon experience 2nd not connected: 8 December, Budapest

Press releases before and after the workshops and conference (2 published + news and posters about the event in Dömös)

TV report at Dömös workshop, longer presentation of the project is planned

articles coming

National conference in January 2015





WP2, WP4, WP5 – cont.



Ad-hoc meetings in 2015:

- 14 April, Ocsa-Bugyi: 41 participants, sust. Forestry management + presenting the Ocsa LSC (meeting connected to another event organized by WWF)
- 13 May, Nagykörös: removal of invasive species – removal of biomass after chemical treatment
- 9 June, Fülöpháza: removal of invasives species (meeting connected to a conference)
- 26 June, Kismaros: installing new biomass heater, selecting the appropriate heater type, involvement of local citizens and informing the target groups
- Eger: meeting with Bukk NPD
- 19 October, Sas Hill – Ocsa: presenting the project results to DDNPD
- 19-20 November, Kiralyret: economic/financial experts of NP directorates





Dissemination at other events



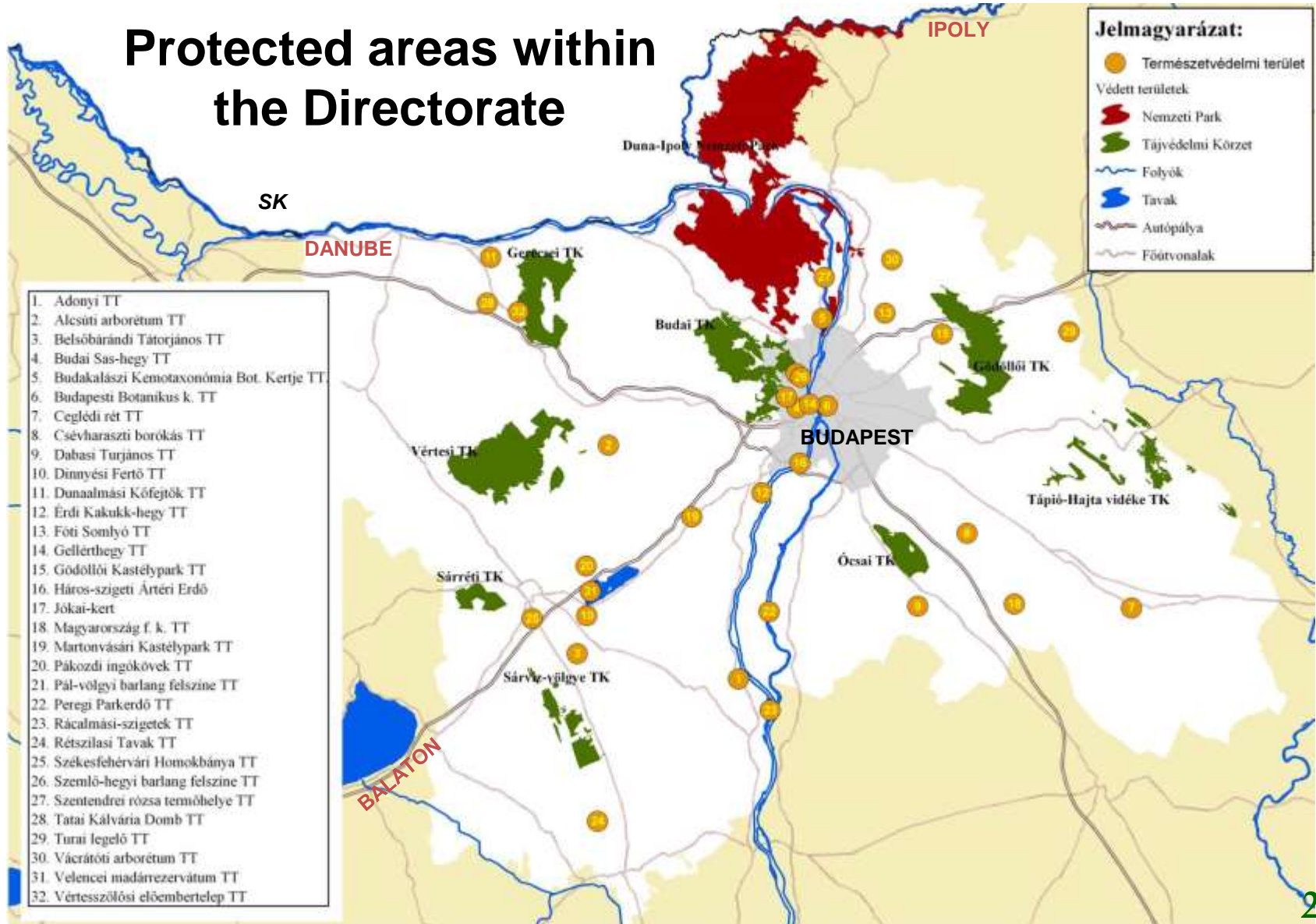


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| Legal act | Partner | Contract number | Biomass | | | Territory | ha | Remarks | |
|--|--|------------------------------------|--------------------------|----------------------|----------|--------------------|---------------------------|---------|---|
| | | | kind | m ³ /year | ton/year | | | | MWh/year |
| Own consumption (increase comp. to baseline) | Sas-hegy Visitor Center | DINPD is the only member of the SC | BM from inv.rem. (shrub) | 30 | 15 | 425 | Sas-hegy | 30 | |
| Contract of Sale+MoU | Locals in Ócsa region | signed | deciduous forest | 243 | 133,65 | 400,95 | Ócsa | 17,55 | plus 200 m3 |
| Contract of Sale+MoU | Hungaropasta kft. | signed | deciduous forest | 200 | 110 | 330 | Ócsa | | Started in 2014 |
| Contract of Sale+MoU Tickets of selling | Locals in Borzsony region | on-going | deciduous forest | 243 | 133,65 | 400,95 | Börzsöny- Ipoly Valley | | started in 2013 |
| New investment | Esztergom farm DINPD | Under constr. | Different types of fuels | | | | ? Esztergom | | To be started in 2015 |
| MOU (Expert contract) | Pilisi Parkerdő Zrt.->Hotel Silvanus | on-going | deciduous forest | 1100 | 1000 | 3000 | Visegrád | 3900 | |
| MOU (Expert contract) | Pilisi Parkerdő Zrt.->HM Currus | on-going | deciduous forest | 620 | 590 | 1770 | Gödöllő | 3700 | |
| Records of selling | Pilisi Parkerdő Zrt.->local inhabitants (social fire wood-since 2013-14) | On-going | deciduous forest | 5700 | 5400 | 18300 | Pilis- Visegrádi hg. | 57000 | Planned in September 2014: 5000m3/2750ton/8250 MWh/year |
| MOU (Expert contract) | Pilisi Parkerdő Zrt. | on-going | deciduous forest | | | | ? Gödöllő | | |
| All together | | | | | | 5947+18300+ ?+? | | | |
| Contract of Sale | Nagykunsági Erdészeti Zrt. | 4284-32/2013 | deciduous forest | 120 | 66 | 198 | Ócsa | | |
| Contract of Sale | Pilismarót Council Municipality | planned | deciduous forest | 100 | 55 | 165 | Esztergom | | Applied for fund |
| Contract of Sale | Alcsút Municipality/Biomass Plant Tatabánya | planned | BM form maint. | | | | | 40 | |
| Contract of Sale | various | planned | | | | | DINPD owned | | |
| MOU | CHP 50 kW – 5 of them | planned | deciduous forest | 5*1250 | 5*687,5 | 5*2062,5 | Esztergom | | waiting for fund |
| MOU | CHP 50 kW – two of them | planned | deciduous forest | 2*1250 | 2*687,5 | 2*2062,5 | Ócsa | | waiting for fund |
| MOU | Újbuda Municipality | planned | deciduous forest | 40 | 5,5 | 16,5 | Sas-hegy | | |
| All together | | | | | | 24206 | | 87,55 | |
| DINPD indicator | | | | | 5082 | 15247 | | | |

Basic data

Protected areas within the Directorate

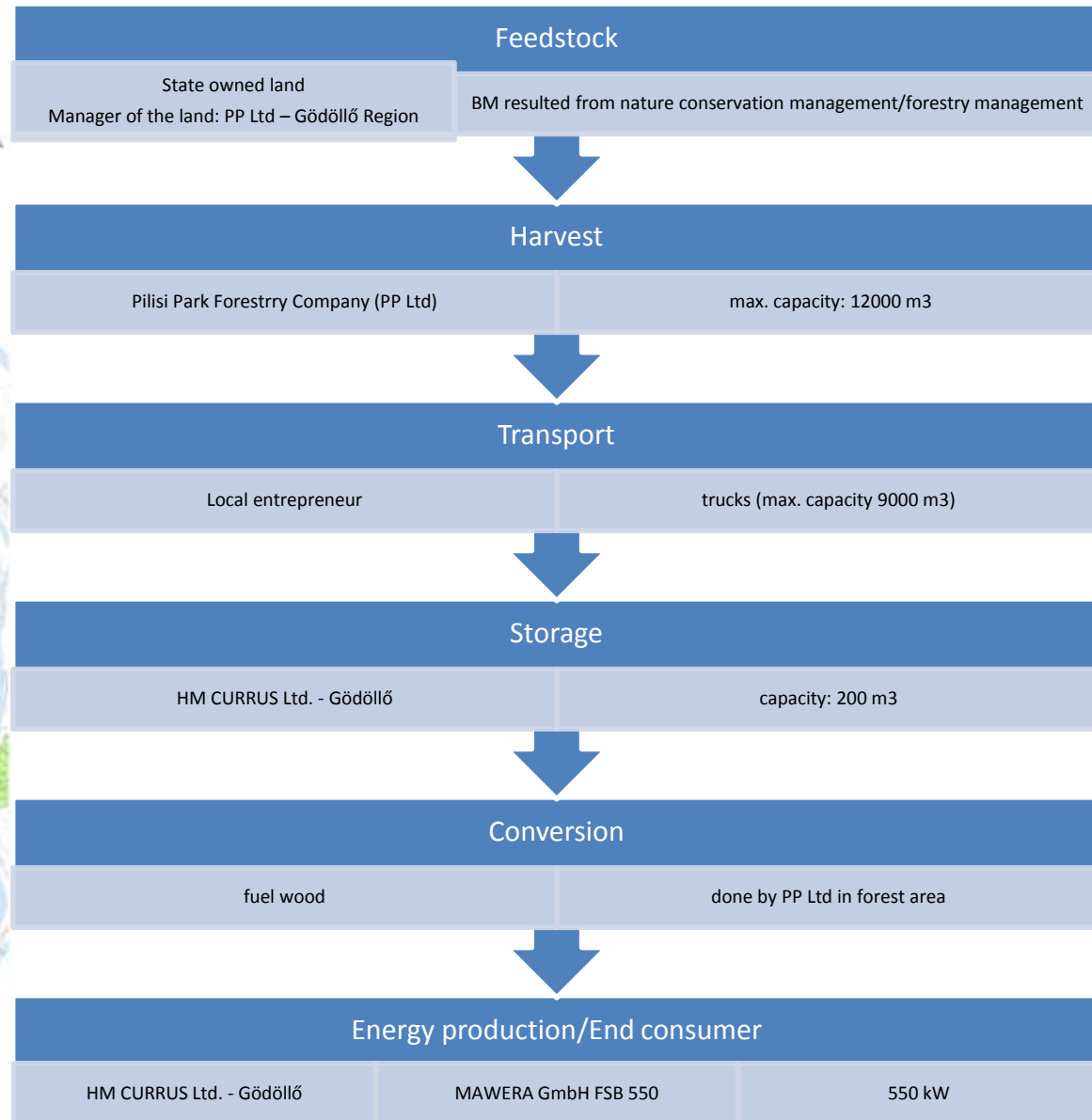
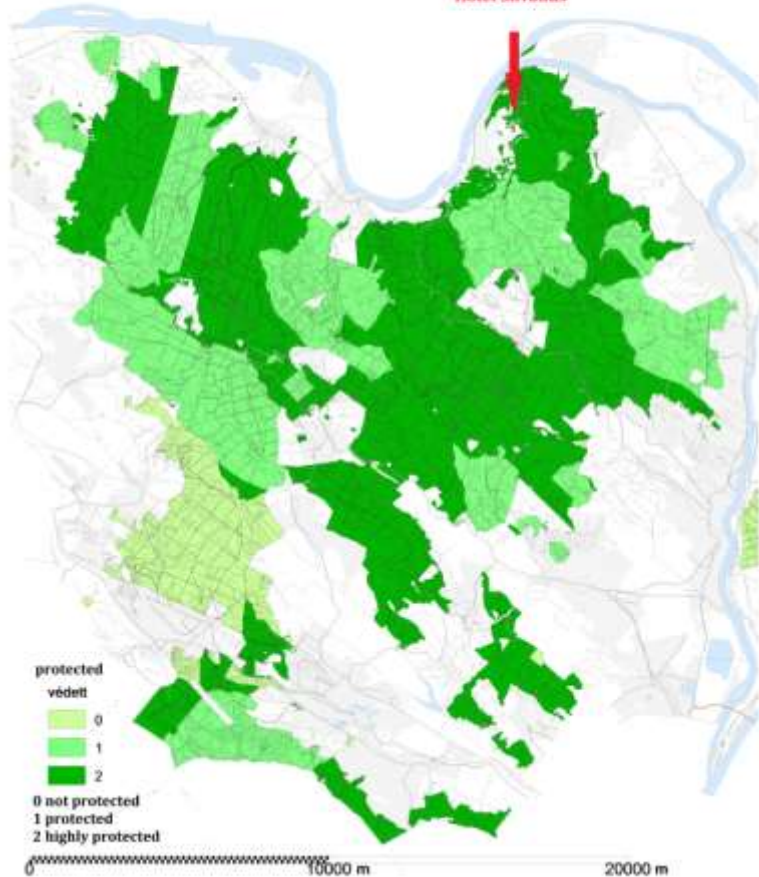


Area Type 3 supply chains

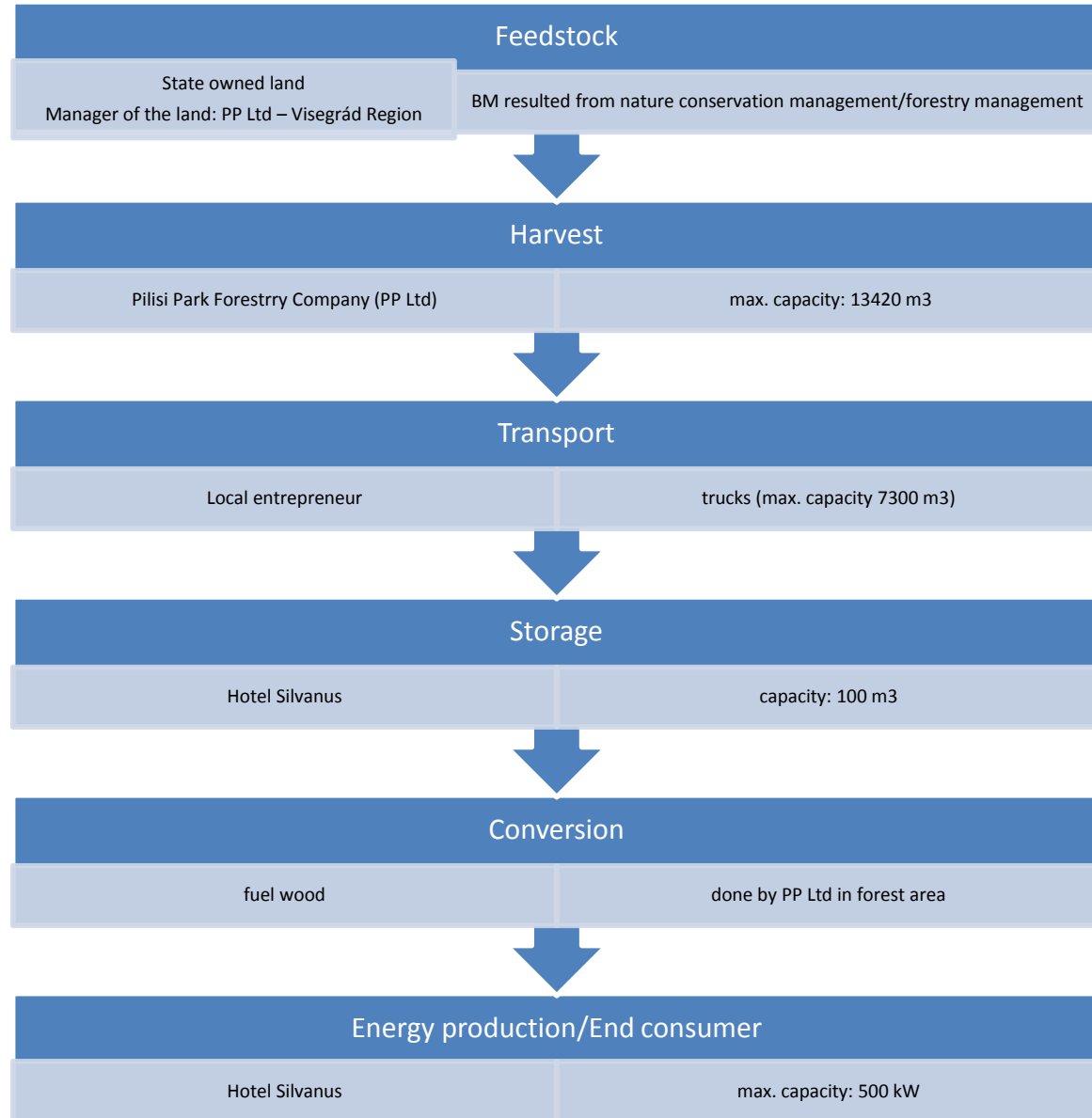
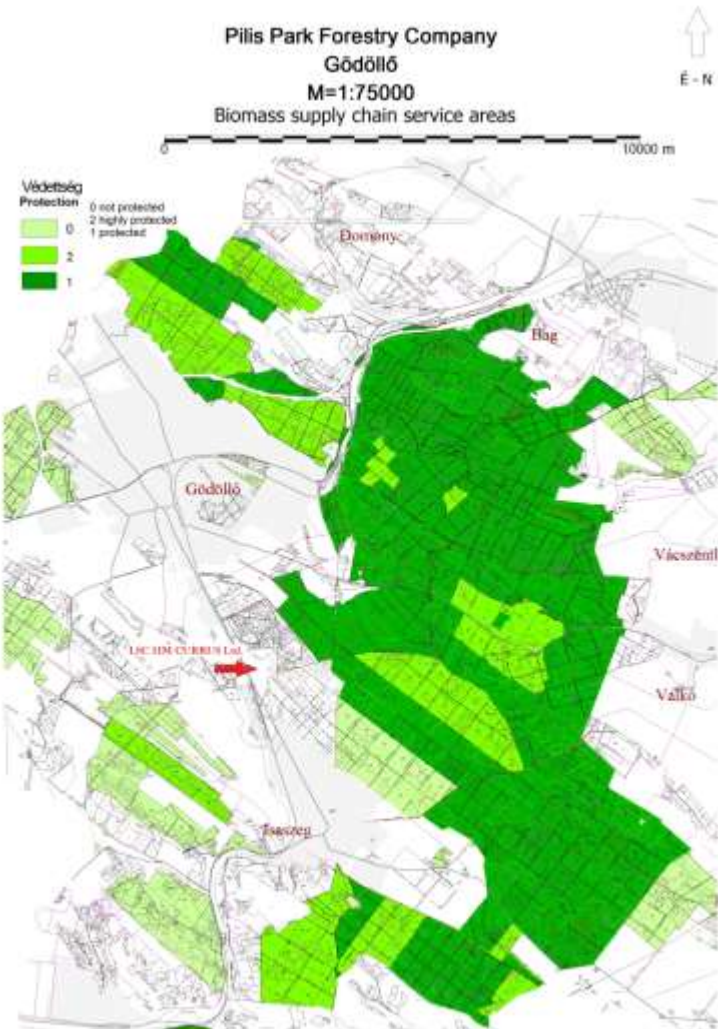
Pilis Park Forestry Company
M=1:125000
 Biomass supply chain service areas



Hotel Silvanus



Area Type 3 supply chains



Basic data

Danube-Ipoly National Park

Establishment: 1997

Territory: 60 314 ha

Highest peak: Csóványos – 938 m

No. of caves: 334

International importance:



Alluvial islands in the Danube



Petényi Barbel – *Barbus carpathicus*
The most precious element of the fish fauna