

Data needs to estimate changes in biomass in AR projects - Hungary as test case



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AR projects

- (to be) established after Kyoto in 1997
- Methodology: costs/technical feasibility
 - BEFs are needed
 - DBH+TH are measured

AR projects

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- Methodological requirements on costs/technical feasibility
 - BEFs are needed
 - DBH+TH are measured
 - Biomass functions are needed
 - Stand level/tree level?


methodology is under development

AR projects

- Young stands?
- Only certain species?
- In Hungarian test site: Black locust, white poplar, black pine



Planned work

- Fresh weight  dry weight
- Data processing
- Additional data collection?
- Publication?

Verification of emission/removal estimates at the national level

$$\Delta\text{CAGB} = [\sum_i (I_i * \text{BECF}_i) - \sum_j (\text{CH}_j + F_j + S_i + O_j) * \text{BECF}_j] * \text{CF}$$

BECF is highly dependent on age, species, site, cultivation 🕒 effect of accuracy of BECF on the accuracy of ΔCAGB ?

Sensitivity of the estimated CRF 5A net removals (in%) to changes in input data used for the estimation (estimation done for the latest national GHG inventory)

Assumed deviation (%) in a single input data	Gross CAI (m ³)	CAI _{net} per CAI _{gross}	BEF (t/m ³)	Carbon fraction	Commercial harvest (m ³)	Total traditional fuelwood consumed (m ³)	Total other wood use (m ³)
-20	-40,8	-40,8	-12,0	-20,0	10,4	10,1	0,3
-10	-20,3	-20,3	-5,5	-10,0	5,2	5,1	0,1
10	20,3	20,3	4,4	10,0	-5,2	-5,1	-0,1
20	40,8	40,8	7,8	20,0	-10,4	-10,1	-0,3

How accurate are increment estimates? - an attempt for verification (national level)

$$I_s = f(\text{TH}, \text{AGE})$$

$$I_b = \Delta V + H + M$$

