



I N T E G R A T E D S I N K E N H A N C E M E N T A S S E S S M E N T



I N S E A
P A R T N E R S

Economic and Ecological Effects of Agricultural Policies on Farms

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Goal and Main Questions

Analyse mitigation costs and income effects for typical farms across European regions

- alternative management options

simultaneous multi-gas approach

- carbon sequestration on agricultural lands

Erosion and other ecological effects, soil carbon and economic effects

- alternative farm production activities

bio-energy from agricultural biomass

Results

- ❑ Reduced and no-till have a large potential. Winter cover crops help accumulating nitrogen. Especially mulch seeding takes a dominant position.
- ❑ In multi-gas approaches non-GHG-gas(es) shouldn't be neglected as impacts often are controversial.
- ❑ Across all farm types reduction of plant production intensity is the first best adoption (N_2O emission reduction largest). Mitigation costs highest on forage growing farms.
- ❑ Bio-energy production: with subsidised prices biomass and manure conversion can substitute other energy sources. Ecological effects depend on type and region of application of remainders.
- ❑ Carbon sequestration potential depends on crop rotations. Cross-compliance values would widely promote adequate, but adopted values?

Conclusions

- ❑ Mitigation options decide on mitigation costs.
- ❑ Substituted products are to be integrated in bio-energy analyses. In biogas production, the usage of side product heat decisive.
- ❑ Clear sectoral delineation necessary for emission accounting. Include efficiency indicator into effectivity analysis.