

Benefit of land consolidation for river valley systems documented in Leithaprodersdorf , Austria

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Leithaprodersdorf is a small village, situated between at river Leitha and Leitha mountains, Burgenland, 40 km southsoutheast of Vienna, Austria.

Its arable area covers about 1.500 hectares with about 400 people's ownership.

In 2001 a procedure of land consolidation has been introduced by the government of Burgenland, with multifunctional targets:

- traditional land consolidation (average size of plots from 0,7 to 2,7ha, reduces expenditures (time, energy, machines, money)
- exchange wineland and fields (to strengthen wine production)
- exchange river forests on both sides of river Leitha (enables easy cultivation of river wood without border conflicts)
- improve net of 65 km roads (delete unnecessary roads, broaden roads to 3,5m lanes and 1,5m green bankette)
- improve soil protection against wind erosion (reconstruction of landscape, plantation of hedges)
- survey plots and borders in cadastre (sustainable border security)
- move out pig stable from village to field (defuses conflict farmer – neighbours)
- realize flood protection measures (purchase of 3,5 ha land, move it to new flood hollow and dam)
- structuring new land for housing and business (important for development of village)
- improve biodiversity (improve ecological quality of 28 km of ditches and brooks)
- measures for nature protection (enlarging protected areas, designation of new Natura 2000 sites)

For implementing of multifunctional targets three EU-funded projects have been created:

1. project for broadening and improving 28 km ditches and brooks

1.1 purchase of 14,4 ha land, costs: 725.000 EUR

1.2 project – measures: new 2 – 3 m buffer zones along brooks and ditches, water-retention in the ditches, repair of drainage exits, ditch-covering plantation (new willows replace reed) to minimize cultivation measures and improve biodiversity

2. project for sustainable soil-protection

2.1 purchase of 12 ha land (10 km) new hedges, costs: 350.000,-- €

2.2 project – measures: plantation of 10 km hedges, that prevention against wind erosion, improve micro climate, balance biologic pest control, prophylactic plant protection

3. project to renew old tree-hedge

3.1 two km existing hedge, costs: 5.500,-- EUR

3.2 project-measures: replacement of old neophyts (Robinia pseudacacia, Eleagnus angustifolia) with native shrubs and trees

**“Green” benefit of land consolidation for landscape of river valley:
reservation and transformation of land for new countryside elements:**

soil protection belts	12,0 ha
bufferzones along ditches/brooks	13,2 ha
water retention basins	1,2 ha
green belts along roads	1,5 ha
SUMMARY	28,0 ha
(% of 1500 ha 1,87 %)	

Conclusions

Land consolidation is a unique tool to (re)instore a sustainable biotop network within the countryside, to acquire, move and transform land as necessary.

Results of land consolidation Leithaprodersdorf confirms, that economy (big plots, strong roads) and ecology (biotop network for preventive plant - and nature protection) are compatible!

Multifunctional land consolidation not only gains profit for farmers, but also promotes national economy and benefit for the local nature & culture.

GREEN - Summary of Land Consolidation Leithaprodersdorf:

1. Soil protection, preventive plant protection:
new and renewed protection belts and hedges
2. Water retention, improved micro climate:
construction of 8 small and 50 „micro“ water retention basins
3. Soil-, species- and waterprotection:
reconstruction and plantation for 28 km of ditches and brooks
- 4: Protection of valuable areas, biodiversity:
protection of last meadows, improvement of water related biotops and
natura 2000 areas
5. Promotion of local coppice

