



MEMORANDUM

Purpose and motivation

This memorandum is an outcome of the first international conference on the utilisation of emergent wetland plants “Reed as a Renewable Resource” (RRR) that took place in Greifswald (Germany) from 14th-16th February 2013. It endorses and promotes the worldwide protection, restoration and utilisation of wetlands for multiple ecosystem services. The conference “Reed as a Renewable Resource” enabled around 160 experts from all over the world to exchange visions, experiences, ideas and information, to identify research demands and to build networks. Participants felt encouraged in their “pioneering spirit” to advance the large-scale production and utilisation of reed as a promising renewable raw material and fuel.

Potentials

With the global increase in population and demand for food resources on the one hand and the increasing utilisation of biomass for bio-energy production on the other, the demand for productive land areas is growing. In many regions of the world vast areas of wetlands exist that are available for production of biomass for energy and raw material without competing with food production. Harvesting of wetland biomass is easily aligned with other demands like climate protection, water and nutrient regulation, nature conservation and recreation. The production of pulp and paper, building material (walls, roofs, insulation) and energy (biogas, combustion) from reed (*Phragmites australis*), cattail (*Typha spec.*), sedges (*Carex spec.*) and reed canary grass (*Phalaris arundinacea*) have already established wetland biomass as a promising opportunity to tap into a new and sustainable biomass resource.

Challenges

The use of wetland biomass faces several challenges to be overcome in the near future:

- Markets are only partly developed and wetland products need to be promoted.
- Production and commodity chains have to be expanded.
- Possibilities for replacement of fossil resources are not fully identified.
- Technical equipment for harvesting still needs further optimisation, particularly with respect to wet peatland cultivation (paludiculture).
- Regulations are needed to satisfy the multiple demands placed on wetland ecosystems.
- Land use in wetlands is currently not eligible for agricultural subsidies.
- Wetland ecosystem services need to be remunerated by society.



Next steps for further implementation

Site adapted land use in wetlands and rewetted peatlands should aim to seize its full potential by building upon existing experience while treating the challenges it faces as opportunities for further development and optimisation. To achieve these goals funds must be allocated to support capacity building and the start up of large scale implementation of site adapted productive use of wetland ecosystems.

The general aim is to promote the synergetic positive effects of peatland rewetting, wet land use and cultivation of reed biomass to stakeholders in government, agriculture, industry and nature conservation alike. Cooperation between (wetland) agriculture and nature protection must be intensified to ensure this aspect receives the attention it deserves. Paving a new path to sustainable and profitable use of wetland biomass requires the adoption of favourable political and legal conditions. Biomass cultivation in wetlands must be included in agricultural subsidy schemes and regulations on land use of rewetted peatlands need more flexibility.

Much has already been achieved on an international level. The Ramsar Convention on Wetlands mentions paludiculture as a sustainable option for the production of biofuels (Resolution X.25). With the start of the second commitment period of its Kyoto Protocol, the UN Framework Convention on Climate Change (UNFCCC) enables parties to account for greenhouse gas removals from rewetting (Decision 2/CMP.7). To that end, the Intergovernmental Panel on Climate Change (IPCC) has produced new guidelines on National GHG Inventories as well as on reporting of emissions and removals under the Kyoto Protocol. Paludiculture is explicitly mentioned in these guidelines as a land use option for rewetted areas. Also the UN Food and Agricultural Organisation (FAO) has acknowledged paludiculture as a sustainable alternative to ensure the availability of productive land that would otherwise become useless because of ongoing land subsidence and degradation. These global initiatives need to be adopted in national schemes and implemented on a regional level to endorse wet agriculture as a cost-effective opportunity to meet the manifold challenges of a sustainable land use.