

THE ACCOUNTING OF PEAT RESOURCES IN FINLAND

Harju, Asta

Geological Survey of Finland, Western Finland Office, P.O. Box 97 (Vaasantie 6)
FI-67101 Kokkola, Finland; Tel. +358-50-3489872; asta.harju@gtk.fi

SUMMARY

The Geological Survey of Finland (GTK) has been developing a concept for accounting of geological natural resources in Finland in order to support their sustainable use. As an extractable resource, peat is one aspect in this work. The long term aim in development of accounting of peat resources is to collect and combine reserve and extraction data with other datasets concerning the land use of peatlands, e.g. conservation and groundwater areas and offer the information to the public and business via digital map service. The work that has been done gives a good starting point for the further development of service both as a channel of data distribution and marketing and later as a tool to follow the amount and changes in peatland reserves of Finland.

KEY WORDS: accounting, peat resources, Finland, digital map service, peatlands

Accounting of peat resources

In recent years, peatlands and their use has been an object to debate and growing need of impartial knowledge has become obvious (Fig. 1). The accounting of peat resources is presented as one of the proposals of action in National strategy for mires and peatlands, which is coordinated by the Ministry of Agriculture and Forestry. The aim of the strategy is to build up a common understanding of the sustainable and diverse use of Finland's peatlands and the value of natural mire ecosystems.

Also, a need towards more extensive and easily accessible data distribution is evident. The accounting of peat resources is an important part in process of peatland data collection, managing and distribution conducted by the Geological Survey of Finland (GTK). In addition, the accounting of peat resources offers means to respond to European Union's INSPIRE (Infrastructure of Spatial Information in Europe) directive concerning the accessibility of environmental spatial data administrated by public sector organizations.

As a first step, a digital map service pilot of accounting of peat resources has been generated and will be introduced on the internet during spring 2012.

In its early stage, the accounting of peat resources can only show reserves, that is, the data produced by GTK's nationwide peatland mapping and evaluating program. However, this versatile, extensive and continuously accumulating data stored in GTK's database forms an



Fig. 1. Sustainable and diverse use of Finnish peatlands: example of a mire under conservation (top left), a mire in use for forestry (top right) and agriculture (bottom left) and peat production area (bottom right)

unique dataset including over 16 600 individual peat basins throughout the country and hence offers a good basis for the future development of the accounting. The information produced by GTK is combined with other data (e.g. basemap data) contributing i.a. the total peatland area and the peat production areas of Finland in a digital map service. A digital map service's pilot area is province of Southern Ostrobothnia in Western Finland.

The digital map service of accounting of peat resources offers information on the amount and distribution of peat reserves in Finland. Also, it allows user to view land use of peatlands in relation to different areal limitations. The data includes i.a. peatlands of Finland, peat production areas, natural conservation areas, groundwater areas and basemaps. Additional information on mires investigated by GTK is also delivered.

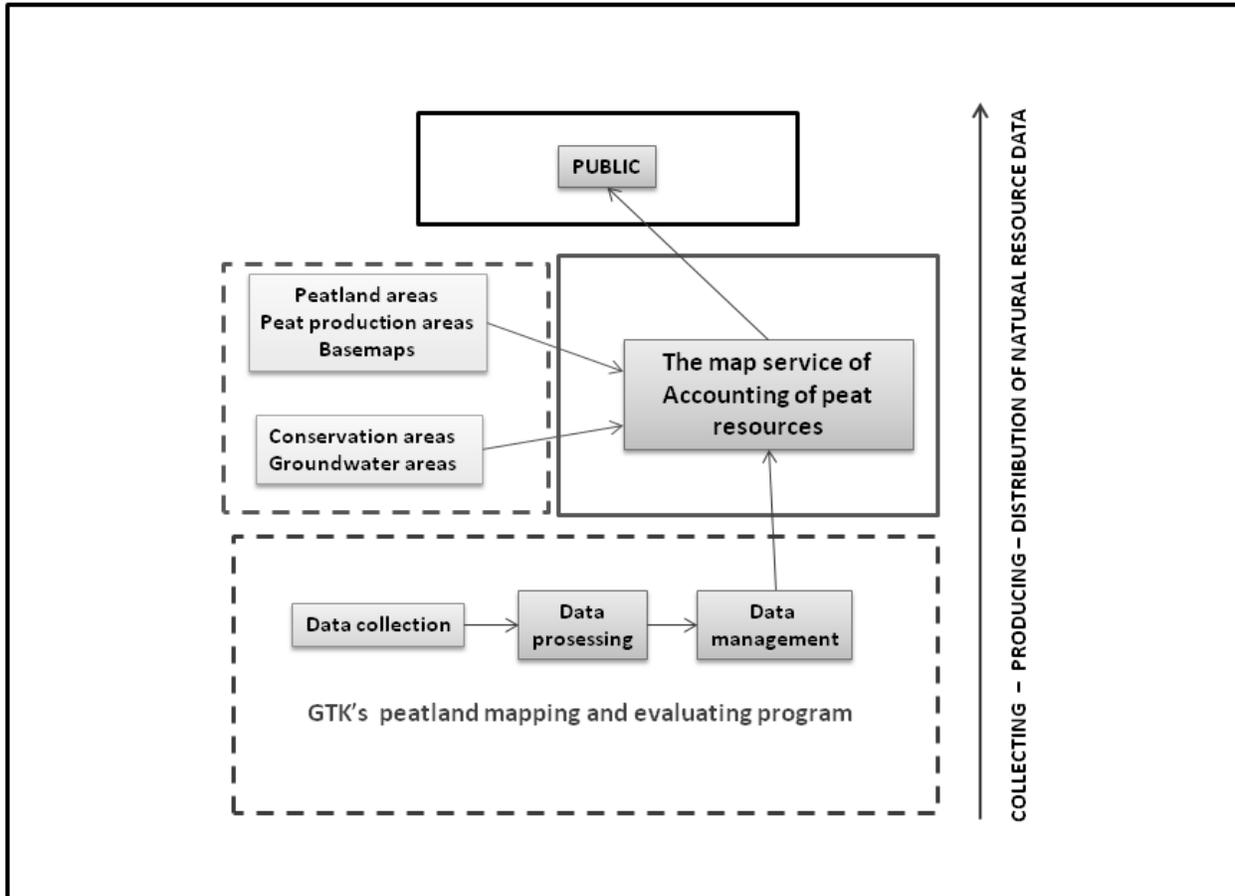


Fig. 2. The datasets collected and combined into the map service

The user is able to search information about peat reserves of different areal units (catchment areas, municipalities, mires). The available information on the area of interest includes total peatland area, conserved peatland area and peat production area. On mires investigated by GTK also the area of investigation and amount of peat in areas over 1.5 meters thick peat layer are available as well as some specific information on individual mires, e.g. name and natural state (Fig. 2).

The advantage of digital map service is the possibility to assemble extensive selection of datasets into a visual, user-friendly and easily accessible form. The accounting will be extended both geographically and informationally in future years. The work that has been done gives a good starting point for the further development of service both as a channel of data distribution and marketing and later as a tool to follow the amount and changes in peatland reserves of Finland.