

Public sector environmental protection expenditure — statistical production process in Finland

Study visit of ICBS 27.8.2014

Merja Eskelinen



Introduction

- Time series 1994 — 2012
 - Revised production method 2007 — 2012
- Statistical release annually: April
 - Lead time 15 — 16 months
- Base SAS application
 - Excel in collection and publication phase
 - PX-Edit and Arbortext Editor in publication phase

Environment and Energy 23/07/2014 2

Data sources and data collection

- Accounting data of central government — State Treasury
 - Budget economy
- Data on environmental subsidies for agriculture — Information Centre of the Ministry of Agriculture and Forestry
- Supplementary data from ministries
 - Ministry of Agriculture and Forestry
 - Ministry of Employment and the Economy
 - Ministry of Finance
 - Ministry for Foreign Affairs
- Data from the statistics on the finances and activities of municipalities and joint municipal boards
 - Public-service companies included

Environment and Energy 23/07/2014 3

Variables and classification (1)

- Expenditure type
 - Based on sums of transaction codes of national accounts in data of central government
 - Based on sums of expense and revenue items in municipal data
- Environmental domain
 - Rough classification based on The classification of Environmental Protection Activities and Expenditure (CEPA 2000)

Environment and Energy 23/07/2014 4

Variables and classification (2)

- | | |
|---|---|
| <ul style="list-style-type: none">■ Expenditure type<ul style="list-style-type: none">• Operating expenditure• Depreciation• Revenue<ul style="list-style-type: none">◦ Current transfers◦ Fees and other• Investment• Investment grants given• Investment grants received• Other transfers given• Expenditure total• Income total | <ul style="list-style-type: none">■ Environmental domain<ul style="list-style-type: none">• Waste water management and water protection• Waste management• Nature protection• Administration, other environmental protection |
|---|---|

Environment and Energy 23/07/2014 5

Data editing and analysis (1)

- Accounting data of central government
 - transaction (and function) codes added by government finance team
 - Budget analysis: selection of sub-items
 - I. primary purpose is environmental protection
 - II. at least half of the allowance is aimed at environmental protection
 - Supplementary data from ministries
 - the proportion of environmental protection expenses
 - Environmental domains added for sub-items in a budget

Environment and Energy 23/07/2014 6

Data editing and analysis (2)

- Detailed data on environmental subsidies for agriculture
 - Expenditure calculated by subsidy type
 - Environmental domain and transaction code added
 - Calculation of proportions financed nationally / by European Union
 - Accordance with accounting data checked
- Data from municipal statistics
 - Activity classes in data: environmental protection (including nature protection), water management, waste management → environmental domain
 - Coefficients estimated to calculate proportion of waste water management based on water management data

Environment and Energy 23/07/2014 7

Data editing and analysis (3)

- Update of the SAS application
 - Sub-items of the budget, environmental domains, coefficients...
- Computation of results
 - Base SAS application comprises three modules
 - Central government
 - Municipalities and joint municipal boards
 - Consolidation
- Excel, PX-Edit and Arbortext Editor in publication phase

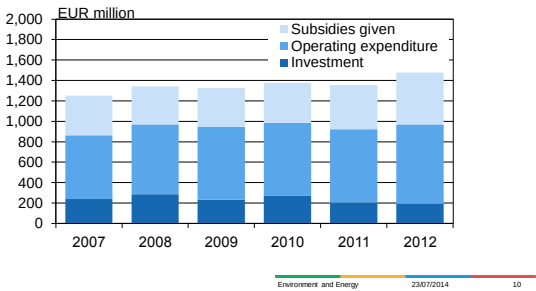
Environment and Energy 23/07/2014 8

Dissemination

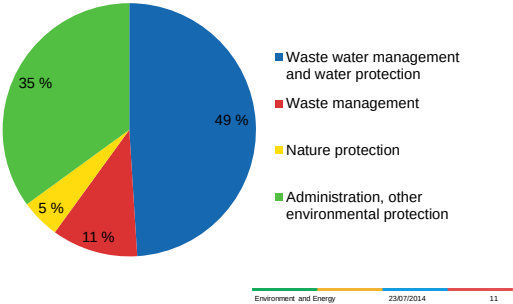
- Statistical releases are published on the web
 - http://tilastokeskus.fi/til/sys/index_en.html
- Environment Statistics Yearbook
 - Paper publication and online service (pdf, Excel tables, pptx figures)
 - http://pxweb2.stat.fi/sahkoiset_julkaisut/ymparistotilasto2014/alku.htm
 - http://www.stat.fi/tup/julkaisut/tiedostot/julkaisuluettelo/ymp_ym_p_2014_00_2014_12020_net.pdf
- Joint Questionnaire of Eurostat and OECD
- UNEP / Convention on Biological Diversity
 - Resource mobilization reporting 2006 — 2012
 - Nature protection → Expenditure directly related to biodiversity
 - Other env. domains → Expenditure indirectly related to biodiversity
 - minor correctives according to CBD reporting requirements
 - <http://www.cbd.int/financial/statistics.shtml>

Environment and Energy 23/07/2014 9

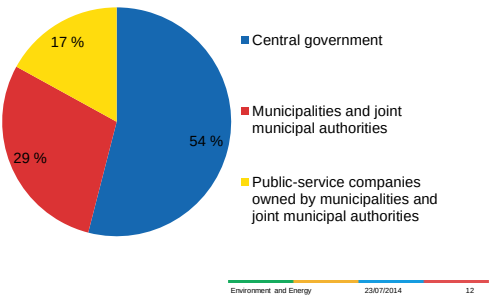
Public sector environmental protection expenditure by expenditure type, 2007 – 2012 (consolidated total)



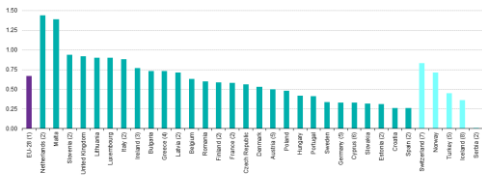
Public sector environmental protection expenditure by environmental domain, 2012 (consolidated total)



Environmental protection expenditure in the public sector, 2012 (consolidated total)



Public sector environmental protection expenditure, 2012
(% of GDP)



(1) Estimate
(2) 2011
(3) 1998
(4) 1999
(5) 2010
(6) 2004
(7) 2003
(8) 2002
Source: Eurostat (online data code: env_m_en2)

Environment and Energy 23/07/2014 13

EU regulation on environmental economic accounts
<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0538&from=EN>
Module for EPEA — Annex IV

- The new regulation entered into force 16 June 2014 and amended previous regulation on European environmental economic accounts
 - <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ.L.2011.192-FULL&from=EN>
 - The new modules are fully in line with SEEA and ESA
- The 1st official EPEA data transmission in December 2017
 - Annual data 2014 — 15

Environment and Energy 23/07/2014 14

EU regulation / Module for EPEA
— List of required characteristics

- Output of EP services
 - Market output, non-market output
 - Gross fixed capital formation and acquisition less disposals of non-financial, non-produced assets for the production of EP services
 - Final consumption of EP services
 - EP transfers (received / paid)
 - In coverage also the rest of the world required
 - Etc.
- The final questionnaire is not yet available

Environment and Energy 23/07/2014 15

EU regulation / Module for EPEA

- Data shall be reported in a breakdown by classes of the CEPA
 - 2 – Wastewater management
 - 3 – Waste management
 - 1 + 4 + 5 + 7
 - 6 – Protection of biodiversity and landscapes
 - 8 + 9 – Environmental R&D + Other EP activities

Other development needs (1)

- Revision of the European System of Accounts, ESA 2010
 - The EU will move to the new system at the end of September 2014
 - Statistics Finland published ESA 2010 accordant national accounts statistical releases and time series 11 Jul 2014
 - Changes also to statistics on public sector's environmental protection expenditure
- Environmental research and development
 - For now estimate by Statistical Methods unit
 - In future expenditure type required
 - Use of official statistics on research and development?

Other development needs (2)

- Estimate for waste water management in municipal data
- Computation of environmental subsidies for agriculture
- SAS Enterprise Guide application
- Publication phase by SAS

Thank you!
