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Indicators complementary to GDP Environmental and social satellite accounts to the National Accounts

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Data collection (surveys, administrative data,...)

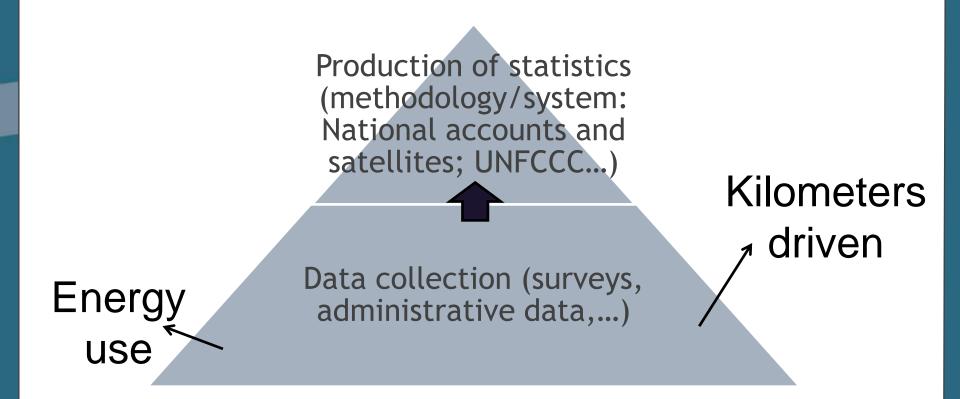


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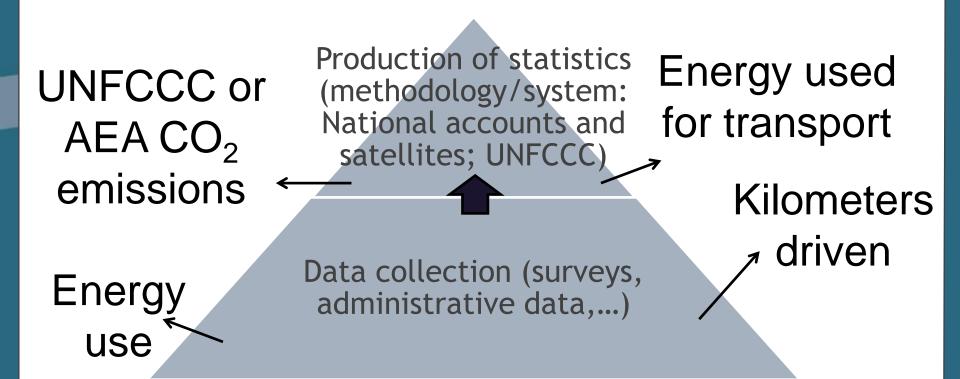
Energy use



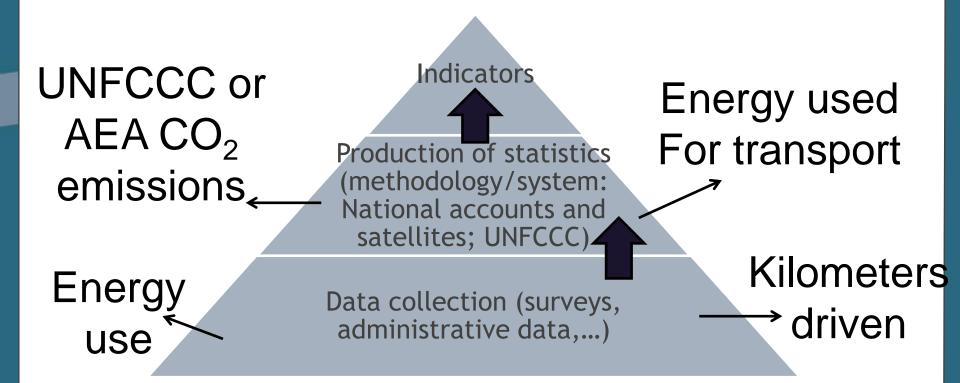
Kilometers



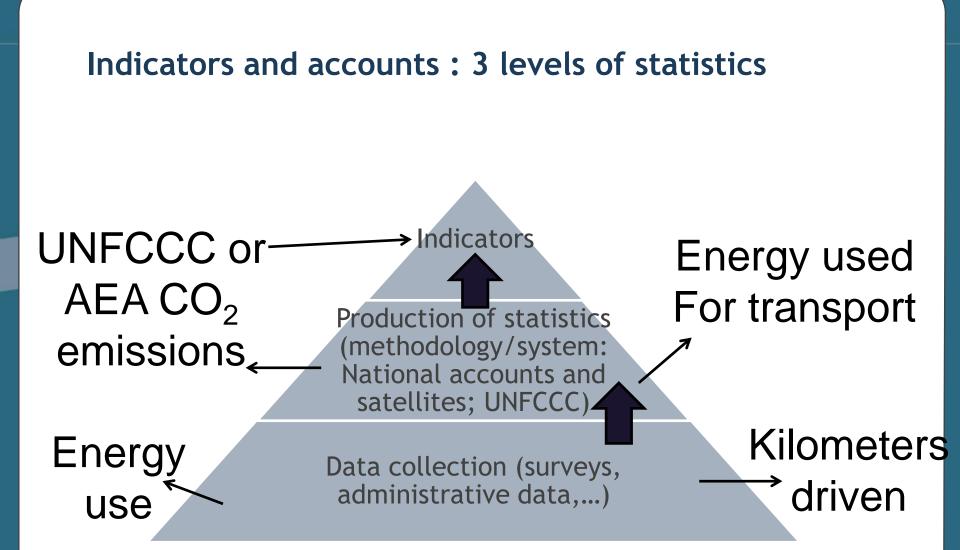






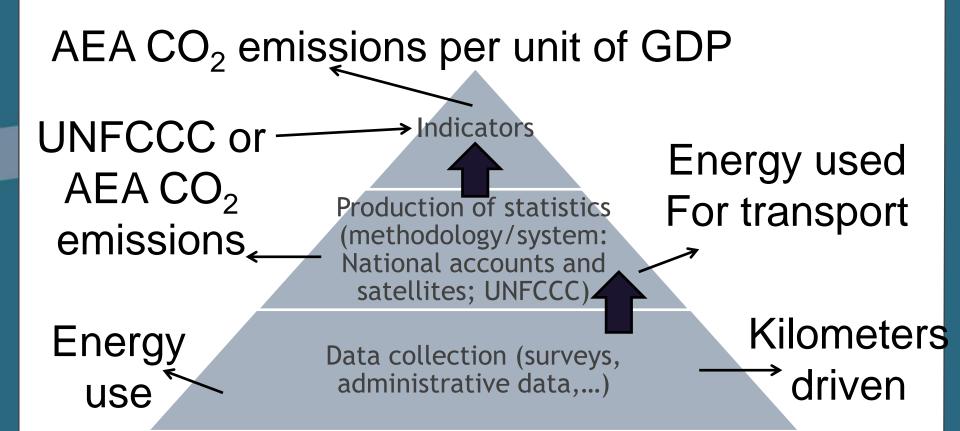














Indicators and National Accounts

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Eurostat Air Emissions Accounts	UNFCCC emissions
By economic activity as defined in NA (NACE, households(HH))	By pollution process as defined by UN
Emissions adjusted to the NA residence principle	Emissions on territory



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- Sustainable development = Economic development Social development Environmental protection



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=> national accounts extended with satellite accounts

Social accounts Environmental accounts



- Core national accounts focus on economic development
- Sustainable development =
 - Economic development
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 - Environmental protection
- => national accounts extended with satellite accounts
 Social accounts
 Environmental accounts
- Complete set of national accounts and its satellite accounts allows for coherent analysis of different aspects of sustainable development



Environmental versus social satellite accounts : contents

Environmental

Social

Starting point : NA sequence of accounts merged with supply and use tables => National Accounting Matrix (NAM) with details on products, industries, production factors, institutional sectors



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Monetary Environmental Accounts (EA) single out environmental part of data already in NA

Physical EA add physical data according to same economic classification as in NA



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Physical EA add physical data according to same economic classification as in NA Institutional sector of HH is split according to criterion of interest (age, level of education, gender, type of revenue of HH head, income distribution...)

Production factor labour is split according to criterion of interest (skill level, fulltime/half-time, age, gender...)

Environmental versus social satellite accounts : history

Environmental	Social
1993 : United Nations System of integrated Economic and Environmental Accounting (UN SEEA)	1970 : first SAMs developed in context of development economics 1978 : Cambridge conference 1985 : World Bank : SAMs - A basis for planning
2003 : Review of UN SEEA together with Eurostat, OECD, World Bank and IMF 2012 : UN SEEA-CF accepted as international statistical standard by the Statistical Commission of the UN	2003 : EU LEG on SAM : Handbook on SAMs and labour accounts

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- Both EA and SAM : considerable cost (time, (wo)man-years)

	Environmental	Social
EU		
FPB		



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EU	Regulation 691/2011 Air Emissions Accounts Environmental Taxes by Economic Activity Economy-Wide Material Flow Accounts Regulation 538/2014 Physical Energy Flow Accounts Environmental Protection Expenditure Accounts Environmental Goods and Services Sector account	
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FPB	AEA, ETEA and EW-MFA yearly publication as of 2013 PEFA, EPEA and EGSS pilot studies for Eurostat ; yearly publication as of 2017	Exploratory study on SAMs for multiplier analysis Qualitative labour accounts 1999-2012 Disaggregation of HH consumption according to income distribution, education level (Peach); type of revenue (employee versus self-employed) HH income attributed to individuals based on age, gender and socio-economic category

- Consistent set of indicators which are comparable with GDP and other national accounts concepts
 Amount of greenhouse/acidifying gases per unit of GDP
 Part of GDP produced by environmental goods and services sector
 Environmental protection investment as percent of total
 - investment by industry



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- Input-output analysis
 - Allocation of pollution to final demand categories Calculation of environmental leakage
- Decomposition analysis

Decomposition of evolution of carbon dioxide emissions into explanatory factors (economic growth, economic structure, energy intensity of production, emission intensity of energy use)



Conclusion

- FPB in a unique position in the context of sustainable development
- Policy supporting role of the Task Force Sustainable Development (Federal Report Sustainable Development,...)
- Statistical responsibilities/knowledge
 Economic supply and use tables, input-output tables
 Environmental accounts
 Elements to create SAM
- Possibility to create a set of coherent economic, social and environmental indicators

