

DOWNLOAD PDF UN METHODOLOGY OF INTEGRATED ENVIRONMENTAL AND ECONOMIC ACCOUNTING

Chapter 1 : Methodology | System of Environmental Economic Accounting

System of Environmental-Economic Accounting (SEEA) is a framework to compile statistics linking environmental statistics to economic www.nxgvision.com is described as a satellite system to the United Nations System of National Accounts (SNA).

It also explains the derivation of SNA aggregates in columns and rows from 1 to 4. The explanation of columns of Table Production side covering output, intermediate consumption, consumption of fixed capital CFC, net domestic product NDP and use of non-produced natural assets in production. Produced assets as a part of economic assets that have come into existence as output from processes. This includes not only tangible fixed assets but also intangible fixed assets such as mineral exploration. It includes net accumulation of produced assets and other changes in the volume of produced assets i. Non-produced economic assets are defined as non-financial assets that have come into existence in ways other than the process of production. This includes tangible non-produced assets like land and sub-soil assets. Intangible non-produced assets like patented entities, leases, and transferable contracts. Records the effects of economic activities on non-produced natural assets such as air, water and virgin forests that are not included as economic assets in the stock of natural assets. The explanation of rows of Table It records the entries of opening stock of produced assets being the value of stocks of man-made capital produced and the value of stocks of natural resources, such as oil, gas and cultivated forests etc. It records total domestic production and the value of imports. Economic uses including elements of intermediate consumption, exports, final consumption expenditure and gross capital formation. Consumption of fixed capital CFC also appears as a negative item. Net domestic product NDP represents the elements that define the national income accounts identity between net domestic product NDP and expenditure categories: It includes the elements for the use of non-produced natural assets by depletion of economic natural assets and degradation of non-economic natural assets. It relates to accumulation of non-produced natural assets which include change in stock of economic assets and reduction on natural assets relating to environment. It relates to environmentally adjusted aggregates in monetary environmental accounting. Objectives of Green Accounting: The objectives of green accounting are: The segregation of all flows and stocks of assets related to environment permits the estimation of the total expenditure for the protection of the environment. A further objective of this segregation is to identify that part of the gross domestic product that reflects the costs necessary to compensate for the negative impacts of economic growth, that is, the defensive expenditures. Physical resource accounts cover the total stock or reserves of natural resources and changes therein, even if those resources are not affected by the economic system. Thus natural resource accounts provide the physical counterpart of the monetary stock and flow accounts of SEEA. Assessment of Environmental Costs and Benefits: Accounting for the Maintenance of Tangible Wealth: The SEEA extends the concept of capital to cover not only human-made but also natural capital. Capital formation is correspondingly changed into a broader concept of capital accumulation allowing for the use or consumption and discovery of environmental assets. The consideration of the costs of depletion of natural resources and changes in environmental quality permits the calculation of modified macro-economic aggregates, notably an environmentally adjusted net domestic product EDP. Problems of Green Accounting: SEEA does not include comprehensive natural resource accounting because regional natural resource accounts are not reflected in the main accounts of the SEEA. It focuses on the use of natural resource for economic activities and ignores the flows and transformations within the natural resources. The types of data needed for SEEA are not available in the necessary format. Thus lack of data has been one of the main problems in the SEEA. Another problem arises when environmental data are directly connected with data of existing national accounts for the preparation of the SEEA. They require assigning of environmental pollution loads to the appropriate economic activities. However, the costs of preventing pollution can only be determined if the causes of pollution are identifiable. But the causes of many types of environmental pollution are not clear. If

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there are several pollution factors which cause environmental damage, the assignment of this damage will be highly arbitrary. Another problem arises when some of the consequences of environmental pollution become visible after a long time. Estimating only the immediate consequences will lead to wrong policy decisions. For different aspects of environmental problems, different valuation problems are used such as prevention and restoration costs and contingent evaluations based on surveys. There are mainly theoretical and arbitrary constructions in SEEA. The pricing of all environmental variables in monetary terms in the SEEA has consequences: Conventional national income accounting does not fully take into account pollution preventive expenditure. Green accounting considers pollution preventive expenditure and also environment impact studies. Conventional national income accounting does not measure the depletion of natural resources and the degradation of the environment. Green accounting considers the costs of depletion of natural resources and changes in environmental quality. Conventional national income accounting does not fully report different types of resource expenditure: On the other hand, green accounting expands and complements the conventional system of national accounts with regard to costing:

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Chapter 2 : Natural Capital Accounting

The System of Environmental-Economic Accounting (SEEA) is a framework that integrates economic and environmental data to provide a more comprehensive and multipurpose view of the interrelationships between the economy and the environment and the stocks and changes in stocks of environmental assets, as they bring benefits to humanity.

In broad terms, the area can be described as enabling any user of statistics to compare environmental issues to general economics, knowing that the comparisons are based on the same entities, for example, pollution levels caused by a producing industry can be linked to the specific economics of that industry. The different areas of SEEA can be briefly described as follows: Flows of materials and energy[edit] By this is meant flows of materials and energy through the economy, e. Data on emissions, above all to the air, have been published for many countries, in particular European countries following SEEA. The main difference between traditional emissions statistics and emissions in environmental accounts are related to the system boundaries. For example, the inventories produced for the reporting of air emissions to the United Nations Framework Convention on Climate Change UNFCCC are based on the geographic borders of a country while the air emission accounts following SEEA use the boundary of a specific economy this is the " residence principle " of the national accounts. This difference is mainly shown in transport emissions as all emissions caused by an economy are included in SEEA. For example, emissions from trucks , ships or airplanes are allocated to their country of origin, even if the emissions occur outside of the borders of this country. Moreover, in the UNFCCC inventories, "transport" is a specific sector of its own and it is not possible to know the share of households and of different industries in the transport emissions. Other statistics that has been developed with relation to flows of material are Economy-Wide Material Flow Accounts and still being developed are energy flow- and water flow accounts. Environmental economic statistics[edit] Economic variables that are already included in the national accounts but are of obvious environmental interest, such as investments and expenditure in the area of environmental protection , environment-related taxes and subsidies, and environmental classification of activities and the employment associated with them, etc. In principle, environmental taxes and environmental protection expenditures can be regarded as two sides of the same coin. Both entail costs involved in production processes that are related to the exploitation of the environment in different ways. On the one hand, environmental protection expenditures record spending on measures aimed at improving the environment, while on the other hand, taxes record the costs set by a government for the exploitation of the environment. Thus, in the total cost of production, the environmental taxes paid can be added to expenditure on environmental protection. Stocks of natural resources[edit] Natural resources in the sense that the accounts should make it possible to describe stocks and changes in stocks of selected finite or renewable resources. These accounts deal with questions related to the monetary valuation of this natural capital , the physical quantities and qualitative aspects that do not have any market monetary value, e. Such accounts may be compiled for sub- soil assets e. History[edit] In the statistical sphere the development of SEEA was begun in the early nineteen nineties. As with the development of the national accounts, the experts involved came from large international organisations, national statistical offices, researchers from universities and consultants. Experts in economics, environmental issues and statistics have developed the SEEA to a point where statistics can be compiled, analysed and published. The first interim version of the System of Environmental and Economic Accounting was made available in by the United Nations. The London Group is still active and is an informal group consisting of experts primarily from national statistical agencies but also international organisations and researchers from universities. The meeting participants are to be directors or similar in rank. This group has e. Another city group has also worked with SEEA. In , the European Commission issued a communication for the establishment of green national accounting [9] based on satellites to the System of National Accounts. Eurostat, and the European Statistical Offices used this as a basis for the development and implementation of the different topics and modules described in the SEEA It was then

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stated that: In the European Commission issued a communication GDP and beyond Measuring progress in a changing world [12] describing the need to complement economic indicators such as the GDP with social and environmental indicators. According to this communication, the European Commission plans to extend the existing data collection further, ready for policy analysis by Implementation[edit] Within the European Statistical System ESS as well as in other countries, such as Canada, Australia and New Zealand the further development of SEEA and the implementation of the framework has led to a focus on compiling statistics related to flows of materials air emission, energy use, waste flows and water flows rather than analysing stocks of natural resources. One reason is that information from the parts of SEEA related to flows of materials have been in more demand from the user community. Another reason is that it has been possible to develop harmonised approaches on which sound statistical practises could be implemented in relation to environmental economic statistics.

Chapter 3 : Environmental accounting - Wikipedia

Foreword The revision of the United Nations Handbook of National Accounting - Integrated Environmental and Economic Accounting (commonly referred to as SEEA), presented in this volume has been undertaken under.

Chapter 4 : System of Environmental Economic Accounting |

published in a Handbook of National Accounting entitled Integrated Environmental and Economic Accounting. 2 The handbook was based on numerous approaches to environmental accounting, pioneered in a series of workshops by the United Nations Environment Programme (UNEP) in collaboration with.

Chapter 5 : United Nations - Sustainable development

The System of Environmental-Economic Accounting (SEEA) is a statistical system that brings together economic and environmental information into a common framework to measure the contribution of the environment to the economy, and the impact of the economy on the environment.

Chapter 6 : Green Accounting: Need, Objectives, Problems and Other Details

for the preparation of a "SNA Handbook on Integrated Environmental and Economic Accounting" to be issued within the United Nations series of national accounting handbooks.

Chapter 7 : OECD Glossary of Statistical Terms - Carbon dioxide equivalent Definition

The United Nations Statistical Commission, upon the advice of the United Nations Committee of Experts on Environmental-Economic Accounting (UNCEEA), recommended at its thirty-sixth session in March , to mainstream.

Chapter 8 : System of Integrated Environmental and Economic Accounting - Wikipedia

the United Nations also pursues this line of thought and outlines a System for Integrated Environmental and Economic Accounting (SEEA) (United Nations,). However, the.

Chapter 9 : ESCWA holds regional workshop on Integrated Environmental and Economic Accounting System

1 System of Integrated Environmental and Economic Accounting and the UN Committee of Experts on

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Environmental-Economic Accounting United Nations Statistics Division.