

Application of Environmental Accounting in Bangladesh

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I. Introduction

It is now an open secret that sustainable development without proper accountability of natural resources is a futile attempt. Any development plan ignoring the natural resource depletion and other environmental degradation will be simply an exercise for the sake of exercise reflecting nothing concerning the relation between environment and the economy. Since environment and economy maintain an inextricable link, the awareness about the magnitude of this link is quite important in formulating policy in harmony with sustainable development path. In recognizing such an act, the role of environmental accounting is unparalleled.

II. Objective

The main objective of this study is to see how environmental accounting could be used to integrate environmental consideration into economic policy making with special emphasis to address the policy issues in a different setting based on green data.

III. Overview of Environmental Accounting

The term "Environmental Accounting" has been coined under different literature in different names like green accounting, resource accounting, integrated economic and environmental accounting, etc. A proper definition of environmental accounting arises from the fact that the prevalent practice of national income compilation does not represent the account for natural resource depletion and environmentally induced expenditures. The routine compilation of different activities for generating the concepts of Gross Domestic Product (GDP), Gross National Product (GNP), or other economic indicators come under the purview of the System of National Accounts (SNA). SNA has been criticized on several grounds as it fails to measure the true economic welfare. However, besides

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these shortcomings the system has also been subject to other criticisms as it fails to take into account the environmental or defensive expenditures (the expenditure incurred in avoiding or protecting environmental damages or harm), non-marketed goods and services, degradation of environmental and depletion of natural resources, etc. If one extends the horizon of different accounting spheres of expenses in social context like crime, divorce and natural disasters, the shortcomings of SNA will be even more heavy as it does not at all consider these issues.

Thus environmental accounting is an attempt to modify the SNA to incorporate the issues of natural resource depletion and defensive expenditure in generating a national account. As mentioned above, by defensive expenditure we mean the expenditure incurred in avoiding or protecting environmental damages or harm. In the SNA these expenditures are treated as income. However, in case of environmental accounting they are deducted from the national income.

In case of environmental services, the accounting procedures of SNA cannot give any entry in its present form. In this category the indirect effect of environmental assets are enumerated which has a value in environmental accounting but not in the SNA.

In the SNA the resource use in its market price is estimated as that constitutes an income. However, its scarcity due to depletion is not taken into account. So, more depletion ensures more income in the SNA while in case of environmental accounting it is the opposite. The consequence of this entry in the SNA is the inflated GNP and other sectoral values added.

Different methodologies have been evolved to address the problem of modification of national accounting in line with the environmental settings. Prominent among them are Physical or Resource Accounts and Monetary Accounts, System of Integrated Economic and Environmental Accounting (SEEA), and Genuine Savings Approach (GSA).

These approaches *inter alia* attempt to give some clues to determining the accounts which take the environmental concepts into its domain.

Physical account takes into consideration the compilation of data about natural characteristics of the environment and its use, the size of natural assets like forest or other subsoil, the quality of water or air, etc. Thus the prime task of this approach is to provide a coherent picture of resource use and depletion or increase, which can be linked to or

integrated with national account. However, the implication of the system requires well-developed monitoring and data collection capability. Monetary account places an economic value on the characteristics of resource or their uses, so as to understand the role they play in the economy. This practice confronts with problems as there are difficulties in estimating the monetary value of certain aspects of environment such as the non-marketed goods and services.

We will concentrate on two major approaches — GSA and SEEA — of determining the environmentally adjusted national income which in some literature is coined as Eco Domestic Product (EDP).

Genuine Savings Approach (GSA)

Green Accounting tries to measure the value of GNP after deducting depreciation on human made capital (dKm) and depreciation on natural capital (dKn). This new method gives rise to the concept of Green Net National Product (gNNP), which, on the other hand, can be described as the costs and benefits of natural resource depletion and environmental degradation.

Although green accounting looks simpler at the first sight, it encompasses something which is a bit tricky. The notions of sustainability as suggested by some economists come into picture. Notions of sustainability are grouped into two sub-sets, namely Weak Sustainability and Strong Sustainability. However, these two concepts also arise from the need for looking at the very concept of sustainability from the resource and capital stock concepts. The economic interpretation of the much discussed concept of sustainability means that the present society should not deprive the future generation of having the welfare at of least to the level enjoyed by the present. Apparently which means that society's well-being should not decline over time. So from here one can have a definition of sustainable development which means that human well-being will decline at some point in future. Only a constant stock of capital overtime can ensure well-being. Lets now go back to the concept of sustainability again for finding a rationale behind this idea of resource stock constancy.

Weak sustainability is rather a compromising concept in the sense that it simply puts on average the resource constancy, i.e., a constant aggregate stock of all forms of capital for the future generation. Such a concept opens