

SEEA Training Seminar for the ECA (2-5 February 2015)

Exercises on Asset accounting- Timber resources

Background

The following exercise provides an example of how one forest account can be compiled by identifying stocks and flows. The purpose is for participants to get an understanding of the basic concepts behind compiling NCA accounts and to begin to consider how accounts can be used for analysis and developing indicators. The idea is to show how data from different sources is integrated in a way that is consistent with the SNA and SEEA frameworks.

The framework used in this exercise and the way it is set up is an adaptation of the SEEA Central Framework asset accounts for timber resources. While SEEA deals specifically with timber resources, this exercise introduces accounting for non-timber forest products (NTFP) into the accounting framework.

Objectives

The objective of this exercise is to get participants familiar with the concept of matching stocks and flows in a natural resource account, and to develop a discussion around the potential uses of the accounts for deriving indicators to inform policy.

Guidelines

The following instructions are related to data from a hypothetical country - SEEAland. Forest resources in SEEAland are under increasing pressure from economic activities, household consumption, and loss of forest. Under these growing pressures, keeping track of the sustainability of use of forest resources for their effective management has become increasingly difficult. Some critical policy questions that can begin to be answered from the accounts are:

- What are the sources of pressure on forest resources?
- How sustainable is the current use of forest resources?

At the end of the exercise, is expected that participants will be able to engage in a discussion around these questions.

Participants should organize in groups and follow the three steps of the exercise:

1. Read the definitions and information
2. Compile the account from the information supplied
3. Develop indicators to inform policy makers

Data are provided for forest resources owned by ABC Pulpwood Corporation, a private entity, and SEEAland Forests Department, a government agency.

Definitions and information

Definitions (after SEEA)

Physical asset accounts for timber resources

The physical asset account for timber resources records the volume of timber resources at the beginning and end of an accounting period and the change in this stock over the accounting period. Of particular interest is the analysis of the natural growth of timber resources compared to the removals.

The asset account should distinguish between the type of timber resource, most importantly between cultivated timber resources and natural timber resources. For natural timber resources a distinction should be made between those timber resources available for wood supply and those not available for wood supply to ensure that the different scope of the asset accounts in physical and monetary terms can be reconciled. Depending on the purpose of analysis and available data, accounts by species of tree may be compiled.

Stock:

The stock of **timber resources** are defined by the volume of trees, living or dead, including dead trees lying on the ground that can still be used for timber or fuel. The stock of **non-timber forest products** (bamboo is the only NFTP identified here) is defined, as for timber resources, by the total volume of bamboo.

Additions to stock:

Natural growth is the volume of increment to timber and NTFP resources in the reference period.

Changes in area of forest land that lead to increase or decreases in the volume of available timber resources are not considered as natural growth (+/-), but recorded as **reclassifications**.

Reductions in the stock:

Removals are the amount of timber and NTFP resources removed from forest land in the accounting period. They include removals of trees felled in the current and earlier periods and the removal of trees killed or damaged by natural causes.

Felling residues arise because, at the time of felling, a certain volume of timber is rotten, damaged, or in excess of the amount required.

Natural losses are losses to the growing stock in the accounting period from causes other than felling.

Catastrophic losses should be recorded when there are exceptional and significant losses of timber resources due to natural causes.

INFORMATION: On 1 January 2006, the following data was recorded in an inventory of forest resource stocks by the SEEAland Department of Forest Science and the ABC Pulpwood Corporation:

SEEAland forest resources, 1 January 2006	
<i>Cultivated timber '000 cu/m</i>	
ABC Pulpwood Corporation	4,300
SEEAland Forests Department	3,500
<i>Natural timber available for wood supply '000 cu/m</i>	
ABC Pulpwood Corporation	1,200
SEEAland Forests Department	10,800
<i>Natural timber not available for wood supply '000 cu/m</i>	
SEEAland Forests Department	5,400
<i>Non-timber forest products - Bamboo '000 cu/m</i>	
SEEAland Forests Department	270

In the period 1 January 2006 to 31 December 2010, natural growth ('000cu/m) in the stock of resources was recorded by the SEEAland Department of Forest Management and the ABC Pulpwood Corporation as follows:

Natural growth, 1 January 2006 - 31 December 2010	
<i>Cultivated timber '000 cu/m</i>	
ABC Pulpwood Corporation	800
SEEAland Forests Department	700
<i>Natural timber available for wood supply '000 cu/m</i>	
ABC Pulpwood Corporation	150
SEEAland Forests Department	1,000
<i>Natural timber not available for wood supply '000 cu/m</i>	
SEEAland Forests Department	110
<i>Non-timber forest products - Bamboo '000 cu/m</i>	
SEEAland Forests Department	80

In the same 5 year period, the following reductions ('000cu/m) to the stock of resources were recorded by the SEEAland Department of Forest Management and the ABC Pulpwood Corporation:

Reductions in forest resources, 1 January 2006 - 31 December 2010	
<i>Cultivated timber '000 cu/m</i>	
<i>Removals -</i>	
ABC Pulpwood Corporation	800
SEEAland Forests Department	400
<i>Felling residues</i>	
ABC Pulpwood Corporation	90
SEEAland Forests Department	30
<i>Natural losses</i>	
ABC Pulpwood Corporation	30
SEEAland Forests Department	10
<i>Natural timber available for wood supply '000 cu/m</i>	
<i>Removals -</i>	
ABC Pulpwood Corporation	300
SEEAland Forests Department	1,200
Households - firewood collection	20
<i>Felling residues</i>	
ABC Pulpwood Corporation	20
SEEAland Forests Department	140
<i>Natural losses</i>	
ABC Pulpwood Corporation	20
SEEAland Forests Department	40
<i>Natural timber not available for wood supply '000 cu/m</i>	
<i>Removals - Illegal logging</i>	50
<i>Natural losses</i>	30
<i>Other reductions - Cyclone damage</i>	80
<i>Non-timber forest products - Bamboo '000 cu/m</i>	100

Some reclassifications of land use purposes by the SEEAland Department of Economic Development in 2007 resulted in the following changes to timber resources ('000cu/m).

Other information: 1 January 2006 - 31 December 2010	
<i>Changes resulting from reclassifications of land, 000 cu/m</i>	
From agriculture to cultivated timber	50
From cultivated timber to infrastructure (roads)	20
From natural timber 'not available for wood supply' to 'available for wood supply'	150