

Guidelines/standard operating procedures for Asset Accounts on Mineral and Energy Resources in States

States may adopt these broad grades of minerals in addition to any other resources for which grades of minerals may be needed to be included in consultation with the State Governments. However, the grades of minerals may be classified in the lines as listed by the IBM some of which are illustrated above.

The grades of stock of minerals were not being ascertained during explorations done hitherto. With the technological progress, gradually these are being captured in cases of new explorations. Thus, for the opening and closing stock, the overall reserve would be mentioned while the gradation would be applied to productions and dispatch. With the passage of time, it would be the endeavour to incorporate the grades of the stock of reserves in the quarterly reports/returns once these are available.

7. The targeted tables of Asset Accounts – updated with additional inputs issued after release of the book on templates

The formats of Asset Accounts on Mineral and Non-Renewable Resources were last issued in October 2021 through the book on templates which is under use in the States. Subsequently, number of advisories have been issued leading to increase in numbers of tables. Besides, tables have been introduced for monitoring the progresses on generation of renewable energy resources and carbon emissions. Also, necessary modifications have been included at various places based on the deliberations during the 2nd Consultative Committee meeting held in June 2022.

Based on the above, the updated formats of Asset Accounts are depicted as follows.

Table 1
Basic asset account on Mineral & Non-Renewable Energy Resources

<i>Particulars</i>	<i>Names of resources (for illustration only)</i>			
	<i>Coal</i>	<i>Crude oil</i>	<i>Natural Gas</i>	<i>Iron Ore</i>
<i>Opening stock of environmental asset</i>				
<i>Growth in stock</i>				
<i>Discoveries of new stock</i>				
<i>Upward reappraisals</i>	<i>Only in cases of adjustment during reconciliation of stock</i>			
<i>Reclassifications</i>				
<i>Total addition of stock</i>				
<i>Reduction of stock</i>				
<i>Extractions</i>				
<i>Normal loss of stock</i>				
<i>Catastrophic losses</i>				
<i>Downward reappraisals</i>	<i>Only in cases of adjustment during reconciliation of stock</i>			
<i>Reclassification</i>				
<i>Total reduction in stock</i>				
<i>Valuation/Revaluation of the stock* (revenue receivable/actual market price) – as in table 3</i>				
<i>Closing stock of environmental assets</i>				

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* Only applicable for asset accounts in monetary terms.

Information/data in Table 3 may be filled in first and the resultant consolidated data may be inserted in Tables 1 and 2 appropriately.

Table 2

Asset Accounts on physical flows of Mineral and Non-Renewable Energy Resources along with sustainability of resources

Classification	Name of minerals with grades (wherever available)	Opening stock of proved reserves	Addition to stock, if any	Reduction in stock			Closing stock of proved reserves	Sustainability of resources in years (closing stock vis-à-vis total extractions)	
				Extracted by/for		Other extractions			Total extraction
				Govt Sector	Private Sector				
(in tonnes/cum - as the case may be)									
Major Minerals									
Fossil fuel									
Minor minerals									
Other resources, if any									

Information compiled in Table 3 may come in this table in consolidated form.

Table 2A

Suggestive formats for capturing riverine resources - physical flows

Classification	Name of resources (illustrative only) with grades (wherever available)	Available reserves at the beginning of the year (as per mining plans)	Accumulation during the year	Reduction in stock			Extraction planned in mining plans during the year (if available)	Remaining reserves at the end of the year (if ascertainable)	
				Extracted by/for		Other extraction including exports			Total extraction
				Govt Sector	Private Sector				
(in tonnes/cum - as the case may be)									
Riverine resources	Sand								
	boulder								
	Shingle								
	Others								

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Table 2B

Suggestive formats for capturing riverine resources - Valuations

Classification	Name of resources (illustrative only) with grades (wherever available)	Physical unit extracted showing Govt, Private and other sector as in table 2A	Valuation of resources		
			Revenue receivable	Total revenue receivable	Average Market value
			₹ in crore		
Riverine resources	Sand				
	boulder				
	Shingle				
	Others				

Table 3

Subsidiary Asset Accounts linking detailed physical flows in respect of Mineral and Non-Renewable Energy Resources with the valuation of resources

Particulars	Name of minerals - with grades (wherever available)	Physical unit (in tonnes/ cum) extracted showing Govt, Private and other sector	Valuation of resources (to be worked out only for the extractions during the year)		
			Revenue receivable (in crore) showing Govt, Private and other sector	Total revenue receivable	Average Market value (as ascertained from the IBM or State Statistical Department)
			₹ in crore		
Opening stock/availability of resources at the beginning of the year					
Additions during the year: Growth in Stock Discoveries of new stock Reclassifications Total Addition:					
Actual reductions during the year: Extractions as reported by the State Government Department of Geology & Mining, Petroleum, Environment and					

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Forest (on recovery of royalty, cess, fees, NPV etc) #								
Revenue related to exploitation of resources out of total revenue included in Statement 14 of State Finance Accounts/Statement 8 of Union Finance Accounts pertaining to four major heads ¹								
Other extractions, not taxed (if any)								
Normal reduction in stock Catastrophic losses including natural and manmade disasters Downward reappraisals Reclassifications								
Total reduction:								
Extractions permitted during the year								
Closing stock								

Note: The clarificatory notes below tables 1 to 3 in the book of templates may kindly be consulted and adopted suitably for preparing these tables.

For working out the tentative value of closing stock of each of the resources, the average of revenue and market value could be used to assign the tentative value of closing stock of resources.

Table 3A

**Table showing information on illegal mining
(Please show case-wise details)**

Name of the district	Authority which detected the offence (deptt/Police/Enforcement/Others)	Detection of illegal mining by the departmental authorities on which challans issued and offence report registered				
		Name of minerals with grades (if available)	Physical quantity/volume	Revenue involved	Amount recovered	Provisions under which compounding done

In addition to the illegal mining detection and offence reports lodged by the Departments concerned, if there are cases of detection of illegal mining by the AsG

¹ Petroleum, non-ferrous mining and metallurgical industries, coal and lignite heads of receipts

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offices through use of satellite data with the assistance of NRSC or other agencies, the same may be brought out separately.

Table 4

Table showing analysis of extraction, production and dispatch of resources

Name of minerals with grades (wherever available)	Opening stock at the beginning of the year		Extraction during the year (raw ores)	Production during the year (processed ores)	Production loss/variation between extraction and production		Dispatch during the year (processed ores)	Mode of dispatch	Closing stock at the end of the year	
	Raw/ores	Processed ores			In volume	In percent			Raw/ores	Processed ores
	Physical units					Physical units		Physical units		

Cases of major variations between the departmental figures and figures reported to IBM have been observed in a number of States. In such cases noticed during preparation of Asset Accounts for 2021-22 onwards, both the information as provided by the concerned Departmental units of the State Government and also those appearing in the reports of IBM may be inserted in subsequent two rows in the above table and variations pointed out. The variations may be further examined in detail for one mineral/one month (in which highest variation noticed) to ascertain the reasons for variation. The findings may be incorporated in the report with the recommendation that the lessees, the State Governments and the IBM could reconcile the variations in cases of other minerals and remaining months.

Table 5

Table showing analysis of district mineral foundation/National Mineral Foundation

Name of District	Volume of mineral extractions on which DMF/NMF was realisable (in cum/cft as the case may be)	Rate at which DMF/NMF realisable	Total DMF/NMF realisable	Total DMF/NMF realised	Variations, if any	
					In ₹	Percentage

Thus, States may use the aforesaid formats as targeted tables for preparing the Asset Accounts for 2021-22 and also for laying down the quarterly data-

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4. By 2030, India will reduce the carbon intensity of its economy by more than 45 percent.
5. By the year 2070, India will achieve the target of Net Zero.

In order to monitor the above commitments, information on progress on generation of new and renewable energy and carbon emissions are envisaged to be captured annually and depicted in the Asset Accounts in the following formats as Table 6 and 7.

Progress in generation and use of renewable energy resources (Table 6)

Sector	Energy requirement by sector during the year (in MWH/GWH)	Total energy requirement in the State (in MWH/GWH)	Generation/additional generation of energy during the year (in MWH/GWH)					Percentage share of non-renewable and renewable energy resources vis-à-vis total requirement		Energy surplus or deficit including total MWH/GWH of deficit/surplus power
			Non-renewable (NR) energy/Fossil fuel sources (MWH/GWH)	Renewable energy				N/R	Renewable energy	
				Solar	Wind	Hydel	Others incl Bio Mass, Waste to energy, Geothermal etc			
Industries										
Domestic										
Agriculture										
Commercial										
Traction and Railways										
Others										

Note: In case of reporting additional generation during the current year, energy generated during the previous year would be the base - appropriate note may be inserted.

In case of energy surplus States, information on energy trade of with other States may please be incorporated separately. Similarly, for energy deficit States, how the deficit is fulfilled including the rate at which energy is procured may be stated in detail.

As per the information provided by the Ministry of Environment, Forest and Climate Change, Government of India, States and Union Territories do not have greenhouse gasses (GHG) inventory, at present. The state level inventorisation methodology is yet to be formalized by MoEFCC. However, India’s national GHG inventory as per Inter-Governmental Panel on Climate Change (IPCC) guidelines is communicated periodically to the United Nations Framework Convention on Climate Change (UNFCCC) through National Communications (NCs) and Biennial Update Reports (BURs). Till such time, a robust state level inventorisation methodology is developed and put in place, the data on GHG inventory of the country would continue to be collected centrally from the Ministry at the time of national compilation of Asset Accounts in the following format.