

9.20 SLATE

Introduction

Slate is a fine grained, foliated, homogenous metamorphic rock derived from an original shale type sedimentary rock viz. claystone, shale, or siltstone composed of clay or volcanic ash through low to very low grade regional metamorphism. The foliation plane developed in a slate may not corresponds to the original sedimentary layering. Slate is well known for its very marked cleavage planes which enables it to split manually or mechanically into relative thin slabs.

Slate is a low-cost decorative stone used for exterior and interior decoration of buildings and it is also a low cost alternative to granite and marble which are comparatively expensive. It is one of the important materials used for roofing. Slate is particularly suitable as roofing material as it has extremely low water absorption index of less than 0.4%. Its low tendency to absorb water makes it very resistance to frost damage and breakage due to freezing. Slate is also used as school slate and also as building dimension stone.

Most slate are grey in colour and range in a continuum of shades from light to dark grey. It also occurs in shades of green, red, black, purple, and brown. The colour of slate is often determined by the amount and type of iron and organic material that are present in the rock.

The exports of slate have increased over the years resulting in a boost to slate mining industry in the country. Micaceous and chlorite slates are generally preferred

Basis of Grade Classification

The total resources of slate in the inventory as on 1.4.2015 have been classified under unclassified grade as the information on end use grade have not been suitably reported by exploration and exploitation agencies. The end use grade classification of slate with corresponding chemical & physical specifications will be included in the next updation.

Basis of Categorisation of Resources

As per United Nations Framework Classification (UNFC), the resources are broadly classified into 'reserves' and 'remaining resources'.

According to the norms of this system, the reserves of slate have been placed under proved (111) & probable (121) categories and the remaining resources of slate have been placed under pre-feasibility (222) category and inferred (333) category.

Salient Features of the Inventory

All India resources of slate in the inventory as on 01.04.2015 are estimated at 22.87 million tonnes. Out of which 20.29 million tonnes (88.7%) are categorised as reserves and remaining 2.58 million tonnes (11.3%) as remaining resources.

All India scenario of slate reserves, remaining resources and total resources as on 1.4.2015 has been given in Tables-1 & 2. These tables provide resource information as per lease status, grade and state. In Table-3 district wise reserves/resources as on 1.4.2015 have been given.

Out of the total resources as on 1.4.2015, Haryana has a major share of 19.51 million tonnes (85.3%) and balance 3.36 million tonnes (14.7%) are contributed by Andhra Pradesh.

The resources of slate have been increased enormously by 20.50 million tonnes. This increase was mainly due to reporting of 1 new deposit in Rewari district of Haryana having resources of 19.51 million tonnes. In addition, the resources of 1 deposit in Andhra Pradesh has been re-estimated.

A total of 07 deposits have been covered in National Mineral Inventory as on 1.4.2015, in leasehold private areas. Of the total resources of slate, 1.51 million tonnes (6.61%) have been estimated under inferred (333) category.

The resources of slate have been reported from private leaseholds only. The resources are reported from 6 deposits of Prakasam (Ongole H.Q) district, Andhra Pradesh and 1 deposit from Rewari district of Haryana.

**Table - 1 : Reserves/Resources of Slate as on 1.4.2015 (P) vis-à-vis 1.4.2010
(By Lease Status/Grade)**

Lease status/Grade	(In '000 tonnes)							
	Reserves		Remaining resources			Total resources		
	1.4.2015	1.4.2010	Net change	1.4.2015	1.4.2010	Net chnge	1.4.2015	1.4.2010
All India : Total	20286	-	(+)20286	2586	2369	(+)217	22872	2369
Unclassified	20286	-	(+)20286	2586	2369	(+)217	22872	2369
Leasehold/Private								
Unclassified	20286	-	(+)20286	2586	2369	(+)217	22872	2369
								(+)20503

NATIONAL MINERAL INVENTORY - AN OVERVIEW

**Table – 2 : Total Resources of Slate as on 1.4.2015 (P) vis-a-vis 1.4.2010
(By States)**

(In '000 tonnes)

State	Total Resources		Net Change
	As on 1.4.2015	As on 1.4.2010	
All India : Total	22,872	2,369	(+20,503)
Andhra Pradesh	3,362	2,369	(+993)
Haryana	19,510	-	(+19,510)

Table - 3 : District wise Reserves/Resources of Slate as on 1.4.2015 (P)

(In '000 tonnes)

State/District	Reserves	Remaining Resources	Total Resources
All India : Total	20,286	2586	22,872
Andhra Pradesh	776	2586	3,362
Prakasam (Ongole H.Q)	776	2586	3,362
Haryana	19,510	-	19,510
Rewari	19,510	-	19,510