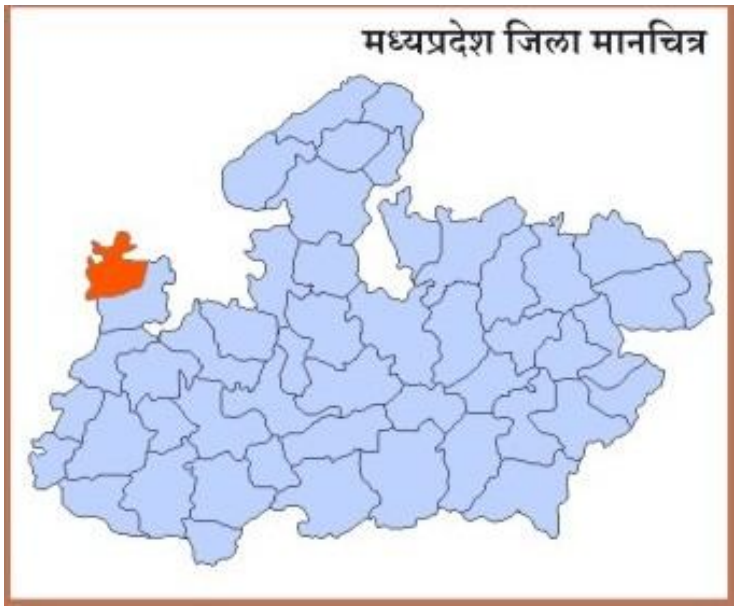
DISTIRCT SURVEY REPORT

DISTRICT NEEMACH

MADHYA PRADESH



DIRECTORATE OF GEOLOGY AND MINING

MADHYA PRADESH BHOPAL (M.P.)

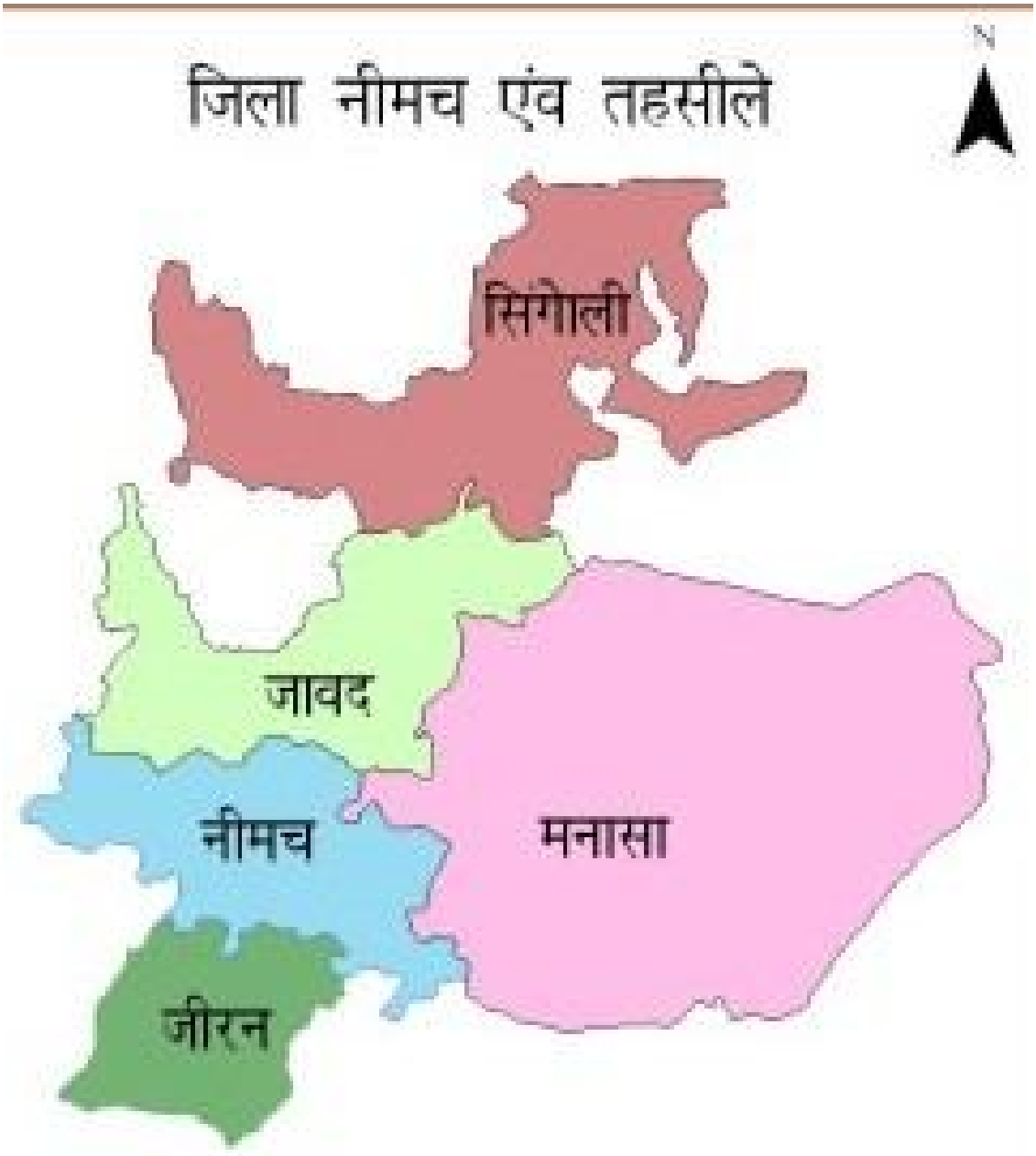
1-: INTRODUCTION

Neemuch district, spreading over an area of about 4256 km^2, lies in the northwestern part of the state of Madhya Pradesh. Prior to independence of India, it was a part of Ujjain division, M.P. Govt. has declared Neemuch as a seperate district as on 30th, June 1998. Earlier, it was a part of the Mandsaur district. Three tehsils of undivided Mandsaur district fall under this new district namely Neemuch, Jawad and Manasa. The district is bounded by Mandsaur district on the southeast and Rajasthan state on the northeast. The district lies between North latitude 24^o14 ' and 25^o02' and East longitude 74^o44' and 75^o33', falling in Survey of India part of toposheet No. 45L/13,14,15 and 45P/1,2,3,6&7. Neemuch is well connected with all parts of country by Rail and roads. It lies on Ajmer-Khandwa main railway line. Mhow Neemuch state Highway passes through the district. As per 2011 census, the population of Neemuch district is about 8,25,958.

For administrative purposes the district is divided into 6 tehsil (Neemuch, Jawad, Manasa, Singoli, Jiran and Rampur) and 3 blocks. It has only one city (i.e. district Hqr. Neemach), two towns (Manasa & Jawad) and 678 villages. The district comprises of vast resources of sandstone, shale and limestone belonging to Vindhyan Super Group of rocks of which Flagstone is one of the most important dimensional stone existing in Singoli and Jiran areas in the district.

Neemuch district forms the northern projection of Madhya Pradesh state. The district is fairly good in communication. The district head quarter Neemuch is well connected by railway and road. Previously it is situated on western railway meter gauge line of Khandwa-Ajmer section via Ratlam, which is now converted to broad-gauge section. It is well connected by road from Indore and Chittorgarh through Indore-Chittorgarh state highway. All the tehsil headquarters are also well connected with district headquarter Neemuch by tar road.

The climate of the district is generally dry except during the monsoon season. The winter season is from December to February. The average annual rainfall in the district is 797.96 mm. The flora of the district falls under the central Indian mixed deciduous type.


जिला नीमच एंव तहसीले
N
सिंगोली
जावद
नीमच
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जीरन

2. OVERVIEW OF MINING ACTIVITY IN THE DISTRICT

Land and water are the basic aspects of development of any economy. Economic development is the output of development of these natural resources in a sustainable manner. The district encompasses huge resources of high grade as well as low-grade limestone, Binota Shale and Laterite with rare occurrence of Lime Kankar, Tufa limestone and Iron ore. The high-grade limestone is widely being utilized in the manufacturing of cement and Its CaO content ranging from 41% to 48%, while low-grade limestone having low CaO content is being used as dimensional stone. The Binota Shale is being used in the manufacturing of slate pencil.

In the district 11 mining leases, 70 quarry leases and 03 auction leases are sanctioned and as a whole, a sum total of 84 leases having 1742.349 hectare area are sanctioned in the district and fetches 42.81 cores of revenue during 2014-15. Limestone is the only major known mineral occur in the district and one major cement plant of M/s Ultratech Cement is using the limestone. Numerous small scale cutting polishing units are working in the district using low grade limestone/Flagstone.

3. THE LIST OF MINING LEASES IN THE DISTRICT WITH LOCATION AREA AND PERIOD OF VALIDITY

Ø-	iVs/kkjh dk uke@irk	[kljk ua	jdck	xzke@rglh y	[kfut	vuqca/k fu"iknu dh fnukad	vU; fooj.k
1	2	3	4	5	6	7	8
[kfuiV~Vk dh lwfp							
1	Jh lkftn vyh fu- lkck fpRrksMx< jkt	12@1	10.00	lksfu;ku uhep	ysVsjk bZjV	28-10-97	Lat. 24°24`00`` Lon. 74°49`25``
2	Jh lkftn vyh fu- lkck fpRrksMx< jkt-	12@1	10.000	lksfu;kuk uhep	ysVsjk bZjV	28-10-97	Lat. 24°24`00`` Lon. 74°49`25``
3	Jhyky vatuk fuoklh&NksVh lknM+h jkt	12@1	10.000	lksfu;kuk uhep	ysVsjk bZjV	24-9-98	Lat. 24°23`30`` .Lon. 74°49`25``
4	Jh iwjuyky vkatuk fu NksVh lknM+h jkt0	12@1	10.000	lksfu;kuk uhep	ysVsjk bZjV	28-9-98	Lat. 24°23`40`` Lon. 74°49`25``
5	es0xzsfleb.M 0fodze lhesaV&[kksaj	&	34.233	dkudk]rglh y tkon	pwuki RFkj	5-7-82	Lat. 24°32`22``to 24°32`45`` Lon. 74°48`27`` to 74°48`56``
6	es0xzsfle b.M0 fodze lhesaV [kksaj	&	442.923	dq.Myk]nk eksnj&iqjk]l qok[ksM+k] [ksM+kjkBk	pwuki RFkj	30-11-84	Lat.. 24°31`-24°36` Lon. 74°46`-74°52`

				Sj] tkon			
7	lqfer fla?kkfu;k] fu-ljokfu;k egk	&	13.284	ljokfu;k egk-tkon	ysVsjk bZjV	1-4-98	Lat. 24°34`00`` Lon. 74°57`00``
8	Jh j?kqjktflag pkSjkfM+;kfu-jkteafnj dsEil&uhep	&	5.000	dkudk tkon	pwuki RFkj	24-3-99	Lat. 24°32`40`` Lon. 74°49`10``
9	es0xzsfle b.M-[kksj	&	342.612	lqok[ksM+k] eksjdk] egs'kiqfj;k rg- tkon	pwuki RFkj	28-1-2002	Lat. 24°33`-24°34` Lon. 74°51`-74 °53`
10	fojnqxZknkl feujYl izk-fy- fuoklh&jkBkSj gkml pansfj;k fpRrksMx<	&	14.733	eksjdk rg tkon	pwuki RFkj	29-11-95	Lat. 24°33`-24°34` Lon. 74°50`-74 °55`
11	esllZ xzklhe b.MLVªht foØe lhesUV [kksj u;kxkoa] uhep	&	564.106	u;kxkao] [kksj] dkudk] nkeksnjiqjk] ds'kjiqjk	pwuki RFkj	01-06-2010	Lat. 24°33`-24°35` Lon. 74°47`-74 °50`
mR[kfuiV~Vk dh lwfp							
1	Jh izgykn dqekj lksekuh uhep	404]405]406]407	20.000	psuiqjk& uhep	Q'khZi RFkj	16-9-06	Latitude 24º-31'-31.4"N Longitude 74º-46'-55.2"E

2	Jh 'kjndqekj xxjkuh] 10DycjksM+& uhep	172]188	10.597	fclyokl[kqnZ uhep	Q'khZi RFkj	1-4-07	Latitude 24º-31'-31.7"N Longitude 74º-46'-47.9"E
3	Jherh lq"kek O;kl] jkthouxj&uhep	188	2.000	fclyokl[kqnZ uhep	Q'khZi RFkj	13-8-07	Mining Plan Not Sumited
4	izHkkdj flag fu- jtuh xa/kk dkykSuh Xokfy;j	1	3.000	fclyokl[kqnZ uhep	Q'khZi RFkj	29-5-07	Latitude 24º-31'17.01" Longitude E74º46'21.64"
5	eukst /kkdM 36 egw jksM uhep	226	1.000	pkSFk[ksMk@ uhep	iRFkj fxVVh	29-11-07	Mining Plan Submited
6	Jhefr fjrq xksikor fu-caxyk uacj 35 uhep	82 is	3.000	?klq.Mhckeuh@ uhep	iRFkj fxVVh	18-2-08	Latitude 24º-31'-33.0"N Longitude 74º-46'-53.5"E
7	Jhefr fjrq xksikor fu-caxyk uacj 35 uhep	101]102	0.750	?klq.Mhckeuh Uhep	iRFkj fxVVh	18-2-08	Latitude 24º-31'-33.0"N Longitude 74º-46'-53.5"E
8	dUgS;k yky ikVhnkj fu-HkMHkfM;krg- uhep	2466	1.280	HkMHkfM;k@ Uhep	iRFkj fxVVh	3-3-08	Latitude 23º-32'17.61" Longitude 74º50'31.55"

9	y{eh ukjk;.k /kkdM fu- nk:] uhep	374	2.70	puijk@ uhep	Q'khZi RFkj	1-10-08	Mining Plan Submited
10	Jherh e/kqckyk ikVhnkj ifr euh"k ikBhnkj fuoklh uhep ftyk uhep	471	1.000	fgaxksfj;k @uhep	iRFkj fxVVh	28-3-2011	Latitude 24º-24'-56.2"N Longitude 74º-52'-59.4"E
11	esllZ feuy ,DliksVZ ikVZuj &xksjo firk ckcqyky esgrk fuoklh &42 xka/kh uxj uhep ftyk uhep	491	3.385	ckeucMhZ @ uhep	Q'khZi RFkj	18-06-09	Mining Plan Sumited
12	Jh vatuh feujYl ,.M yksftLVhd b.MLVªht ikVZuj & egsUnz dqekj esgrk fuoklh & 42 xka/kh uxj uhep ftyk uhep	491	3.385	ckeucMhZ @ uhep	Q'khZi RFkj	18-06-09	Mining Plan Sumited
13	eS0pq.Mkor ekbZfuax lxzkex<+ ikVZuj Jh Hkokuhflag fu- lxzkex< rg- vklhUn ftyk HkhyokM+k +	505	4.000	ckeucMhZ @ uhep	Q'khZi RFkj	18-06-09	Mining Plan Sumited

14	psrd bUVjizkbZtsl Mk;jsDVj iwjuey vkatuk firk jkeyky vkatuk fuoklh dslqUnk ftyk fpRrksMx< ¼D;q-,y-06@11½	350	2.00	pSuiqjk@uhep	iRFkj fxVVh	27-04-2012	Latitude 24º-31'-38.4"N Longitude 75º-46'-05.0"E
15	psrd bUVjizkbZtsl Mk;jsDVj iwjuey vkatuk firk jkeyky vkatuk fuoklh dslqUnk ftyk fpRrksMx<	350]363	4.00	pSuiqjk@uhep	iRFkj fxVVh	27-04-2012	Latitude 24º-31'-38.4"N Longitude 75º-46'-05.0"E
16	psrd bUVjizkbZtsl Mk;jsDVj iwjuey vkatuk firk jkeyky vkatuk fuoklh dslqUnk ftyk fpRrksMx< ¼D;q-,y-08@11½	350	2.00	pSuiqjk@uhep	iRFkj fxVVh	27-04-12	Latitude 24º-31'-38.4"N Longitude 75º-46'-05.0"E
17	Jh gjthr flag nqvk firk okjlhyky nqvk fuoklh 2 y{eh Hkou lhvkjih,Q jksM uhep	20 isdh	1.000	teqfu;k dyka @uhep	iRFkj fxVVh	11-04-08	Latitude 24º-24'-45.73"N Longitude 74º-53'-34.09"E

18	Jh gf"kZr firk deys'k nqvk fuoklh m"kkxat euklk rglhy euklk ftyk uhep	325@ ehu&1	1.500	vufj;k ekuxhj	iRFkj fxVVh	18-04-14	Latitude 26º-99'457"N Longitude 76º04'57.4
19	Jherh yyhrk ifr iou ikVhnkj fuoklh 07 gsMxaokj cl LVsM uhep	587	2.000	fxjnkSMk	iRFkj fxVVh	05-08-14	Latitude 24º-28'9.3"N Longitude 74º-55'-50.3"E
20	Jherh lquhrk ifr pUnz'ks[kj ikVhnkj fuoklh 50 gsMxaokj cl LVsM uhep	603	1.500	fxjnkSMk	iRFkj fxVVh	05-08-14	Latitude 24º-28'9.3"N Longitude 74.56'38.95"E
21	Jh iyk'k firk deys'k nqvk fuoklh m"kkxat euklk	259@ ehu&6 259 ehu&4	1.000	vjfu;k ekuxhj	iRFkj fxVVh	04-12-14	Latitude 24.24'39.63"N Longitude 74º-46'-55.2"E
22	v/;{k bafnjk iRFkj Jfed lgdkjh laLFkk e;kZfnr lqok[ksMk] tkon	&	117.532	lqok[ksMk @ tkon	Q'khZi RFkj	08-01-15	Latitude 24º-33'07.2" to 24º33'42" Longitude 74º.50'03.4" to 74º50'33.5"
23	jkepUnz ckiwyky fu- lqoks[ksMk	729	0.418	lqok[ksMk @ tkon	Q'khZi RFkj	12-8-08	Mining Plan Sumited

24	jruyky ukjk;.k tks'kh fu-uhep	755	0.637	lqok[ksMk @ tkon	Q'khZi RFkj	4-8-08	Mining Plan Sumited
25	esllZ vk'kh"k baVjizktsl uhep	8 ehu&2	4.000	lqok[ksMk @ tkon	iRFkj fxVVh	10-12-13	Latitude 24º.32.742' Longitude 74º49.254'
26	esllZ vk'kh"k baVjizktsl fuoklh 4&5 bVaLVhy ,sjh;k uhep	11	3.720	lqok[ksMk @ tkon	iRFkj fxVVh	26-08-14	Latitude 24º.32.454 Longitude 74º49.454
27	dUgS;kyky xkW/kh fu0teqfu;kjkoth	846	1.193	vYgsM+]euklk	iRFkj fxVVh	25-05-13	Mining Plan Submited
28	es0t; ikokx<+ ekW 'kfDr LVksu izks-'ksysUn ifjgkj] uhep	427	2.500	[ksrikY;k rg-&euklk	iRFkj fxVVh	18-11-08	Latitude 24º-26'-26"N Longitude 75º-04'-0.46"E
29	'ksysUnz ifjgkj firk nsoUnz ifjgkj fuoklh uhep	848@1	0.940	vYgsM euklk	iRFkj fxVVh	01-07-14	Latitude 24º-28'-22"N Longitude 74º-06'-46"E
30	Jh lq'khy dqekj yks<k fodkl uxj uhep	840@1@1	0.404	vYgsM@euklk	iRFkj fxVVh	10-3-06	Latitude 24º-28'-19.2"N Longitude 75º-06'-18.2"E

31	nsosUnz xkW/kh fu-teqfu;kjkoth rg- euklk	847	2.000	vYgsM@ euklk	iRFkj fxVVh	28-6-06	Latitude 24º-28'-22.20"N Longitude 75º-06'-41.70"E
32	Jhefr jpuk fl?kbZ eaxyk uflZx gkse euklk-	848 is- fd	4.000	vYgsM@ euklk	iRFkj fxVVh	11-7-06	Latitude 24º-28'-22.20"N Longitude 75º-06'-41.70"E
33	Jhefr laxhrk tSu eWwnMk dh pky euklk	848 is fd	3.000	vYgsM@ euklk	iRFkj fxVVh	11-7-06	Latitude 24º-28'-27.80"N Longitude 75º-06'-36.24"E
34	ftusUnz yks<k fu- 235 fodkl uxj uhep	847	4.000	vYgsM@ euklk	iRFkj fxVVh	28-6-06	Latitude 24º-28'-20.5"N Longitude 75º-06'-23.5"E
35	lhrkckbZ i`Fohjkt firk jruflg fuoklh eulk[kaMheYg kjx<	492	1.530	piykuk@ euklk	iRFkj fxVVh	5-3-08	Latitude 24º-20'-15.00"N Longitude 75º-12'-10.00"E
36	jfodqekj firk jktsUnz O;kl euklk	848@ 1@1	1.000	vYgsM@ euklk	iRFkj fxVVh	27-10-10	Mining Plan Submited
37	psrd b.VjizkbZtsl izks- iqj.key vaktuk fuoklh dslqUnk] NksVh lknMh	839@ 1 ehu&1	2.000	vYgsM@ euklk	iRFkj fxVVh	24-12-10	Latitude 24º-28'-24.1"N Longitude 75º-06'-06.7"E

	jkt0						
38	odhy firk xCckth fuoklh dq.M[ksMk ftyk uhep	839@1 ehu&1	2.000	vYgsM@ euklk	iRFkj fxVVh	24-12-10	Latitude 24º-28'-30.5"N Longitude 75º-05'-59.5"E
39	Jhefr jpuk fl?kbZ eaxyk uflZx gkse euklk	23	1.800	lk.fM;k@ euklk	iRFkj fxVVh	24-05-14	Mining Plan Submited
40	vkyksd firk dSyk'k cSjkxh fuoklh mEesniqjk rglhy tkon	349eh u@2	2.000	vkdyh@euklk	iRFkj fxVVh	05-08-14	Latitude 24º-21'-21.28"N Longitude 75º-09'-13.46"E
41	vafdr firk dSyk'k cSjkxh fuoklh mEesniqjk rglhy tkon	349eh u@2	2.000	vkdyh@euklk	iRFkj fxVVh	26-11-14	Latitude 24º-21'-26.65"N Longitude 75º-09'-15.36"E
42	ujsUnz firk fo".kqnkl cSjkxh fuoklh xzke vka=h rg euklk	14 ,oa 16	4.000	fl?kkMh;k fiiY;k	iRFkj fxVVh	17-12-14	Mining Plan Submited
43	uanfd'kksj firk cnzhyky iksjoky fuoklh vka=h cqtqxZ rglhy euklk ftyk uhep	426	1.000	piykuk@ euklk	iRFkj fxVVh	13-01-12	Latitude 24º-20'-18.00"N Longitude 75º-12'-12.00"E

44	Jh dSyk'k firk /ku';ke cSjkxh fuoklh mEesniqjk rglhy tkon ftyk uhep	200@ ehu&1	4.000	vkadyh@e uklk	iRFkj fxVVh	26-09-15	Latitude 24º-21'-38.75" Longitude 75º-09'-16.37"E
45	lkdhj gqlSu firk uklhj gqlSu fuoklh flaxksyh ftyk uhep	2@1@ 1	4.421	dobZ flaxksyh	Q'khZi RFkj	18-11-08	Latitude 25º-02'-22.6"N Longitude 75º-12'-31.4"E
46	ckykth ekbZUl ik-& l t ; fl lkfn;k ¼[knku Bdnkj½ fuokl h&100 dk'kh ij h Hkh yokMk ftyk HkhyokMk jkt0	2@1@ 1	2.947	dobZ flaxksyh	Q'khZi RFkj	18-11-08	Latitude 25º-02'-13.3"N Longitude 75º-12'-47.7"E
47	lEir dqekj	1158	4.000	Qqlfj;k@ flaxksyh	Q'khZi RFkj	30-3-07	Latitude 25º-06'-31.9"N Longitude 75º-17'-04.2"E
48	vOnqy jghe Nhik fu-ekMyx< ft-HkhyokMk jktLFkku	1158	4.000	Qqlfj;k@ flaxksyh	iRFkj fxVVh	7-6-07	Mining Plan Submited

49	dSyk'k Lo.kZdkj fu- flaxkSyh rg-tkon	1235 is	1.000	Qqlfj;k@ flaxksyh	Q'khZi RFkj	18-1-08	Mining Plan Not Submited
50	fnus'k vxzoky fu- flaxkSyh rg-tkon	1215	3.000	Qqlfj;k@ flaxksyh	Q'khZi RFkj	30-1-08	Latitude 25º-00'-31.69"N Longitude 75º-16'-33.13"E
51	jksfgr jkBh firk foey fd'kksj jkBh fuoklh 23] egkohj ekxZ enuxat fd'kux< ftyk vtesj	1277	4.000	Qqlfj;k@ flaxksyh	Q'khZi RFkj	7-3-08	Mining Plan Submited
52	xksfoUn jke firk /kUukth tkB fuoklh vketh dkyqflag rglhy 'kkgiqjk ftyk HkhyokMk	1235	1.000	Qqlfj;k@ flaxksyh	Q'khZi RFkj	12-8-08	Latitude 25º-01'-07.6"N Longitude 75º-16'-40.8"E
53	nsojke firk nsohyky /kkdM+ fu&rqjdMh rg%flaxksyh] uhep	1235 4]5]6	1.000	Qqlfj;k@ flaxksyh	Q'khZi RFkj	12-8-08	Mining Plan Not Submited
54	bdcky firkJh dkfleth fu-cMh	1277	1.000	Qqlfj;k@ flaxksyh	Q'khZi RFkj	12-8-08	Mining Plan Not Submited
55	Jhefr lkfo=h nsoh fu- dksVk	1248	1.295	Qqlfj;k@ flaxksyh	Q'khZi RFkj	3-10-08	Latitude 25º-01'-12.6"N

	jksM flaxksSyh						Longitude 75º-16'-35.17"E
56	vlye gqlSu fu flxkSyh	1244	1.875	Qqlfj;k@ flaxksyh	Q'khZi RFkj	13-10-08	Mining Plan Submited
57	oh-vkbZ-,l-oh-LVhy daiuh izks& lqfuy dksBkjh 308 iapjRu dkEiysDl mn;iqj	1253	3.000	Qqlfj;k@ flaxksyh	Q'khZi RFkj	3-10-08	Latitude 25º-01'-1.08"N Longitude 75º-16'-44.89"E
58	eks- vkfjQ fu fccksn	1244	1.829	Qqlfj;k@ flaxksyh	Q'khZi RFkj	28-2-09	Mining Plan Submited
59	oh-vkbZ-,l-oh-LVhy daiuh izks& lqfuy dksBkjh 308 iapjRu dkEiysDl mn;iqj	1256	1.000	Qqlfj;k@ flaxksyh	Q'khZi RFkj	2-7-09	Latitude 25º-01'-1.08"N Longitude 75º-16'-44.89"E
60	eksguyky jkeyky fctkSfy;k	1257	2.00	Qqlfj;k@ flaxksyh	Q'khZi RFkj	2-7-09	Mining Plan Not Submited
61	ujsUnz dqekj pkaney ukxkSjh flaxksyh	1277	2.00	egjktiwjk@ flaxksyh	Q'khZi RFkj	2-7-09	Mining Plan Not Submited
62	eksgu firk I;kjpan /kkdM fuoklh flaxksyh	1248	3.000	Qqlfj;k@ flaxksyh a	Q'khZi RFkj	11-04-2007	Mining Plan Not Submited

63	eksrhyky /kkdM+	1187 @1	1.000	Qlfj;k@ flaxksyh	iRFkj fxVVh	04-08-2005	Mining Plan Submited
64	es- dkfydk LVksu	1248	1.800	Qqlfj;k@ flaxksyh	Q'khZi RFkj	22-12-2007	Mining Plan Not Submited
65	eksrhyky firk izHkqyky /kkdM fuoklh flaxkSyh	1185 @] 1188] 1189	2.000	Qqlfj;k@ flaxksyh	iRFkj fxVVh	25-08-2014	Mining Plan Submited
66	ikjl dqekj eksguyky /kkdMk fuoklh flaxksyh	1257	2.000	Qqlfj;k@ flaxksyh	Q'khZi RFkj	14-12-09	Latitude 25º-0'38.99"N Longitude 17º-50'.51"E
67	fodze firk lR;ukjk;.k ikVhnkj fuoklh 32 'kkL=h uxj uhep	416	1.000	thju@dksVMh bZLreqjkj	iRFkj fxVVh	26-08-15	Mining Plan Submited
68	Jhefr lk/kuk ifr jkts'k egs'ojh fuoklh & 2@1 Hkkxs'oj efUnj jksM uhep	341@1 isdh	1.750	[ksrk[ksMk Mksfj;k@thju	iRFkj fxVVh	04-12-07	Mining Plan Sumited
69	Jhefr Lokrh ifr dfiy ukgVk fuoklh LVs'ku jksM eUnlkSj	148	0.700	thju@thju	csUVk sukbV Dys	01-10-12	Mining Plan Submited
70	Jh dfiy ukgVk firk fojsUæ ukgVk fuoklh LVs'ku jksM eUnlkSj	146	0.070	thju@thju	csUVk sukbV Dys	01-10-12	Mining Plan Submited
uhyke [knku dh lwfp							

1	Jh deyfd'kksj jkBh firk jkefuokl fuoklh& dkadjksyh ftyk jktleUn	1256	3.000	Qlfj;k	Q'khZi RFkj	09-04-13	Latitude 25º-01'7.02"N Longitude 75º16'21.21"E
2	Jh uru tu&i"idekj uhep	188	1.000	fclyokl [kn] uhep	Q'khZi RFkj	26-05-11	Mining Plan Submited
3	ukjk;.kflg firk ykyflg fuoklh Vkd mn;ij jkt-	374	2.000	puijk uhep	Q'khZi RFkj	26-05-11	Latitude 24º-31'-28.5"N Longitude 74º-46'-08.6"E

4. DETAILS OF ROYALTY OR REVENUE RECEIVED IN LAST THREE YEARS

fooj.k	o"k 2012&13	2013&14	2014&15
e[; [kfut	36,13,39,133/-	37,07,59,648/-	38,29,95,303/-
xk.k [kfut	4,16,03,810/-	3,37,70,542/-	3,51,64,980/-
?kk"k fod;	7,77,645/-	3,89,755/-	4,26,670/-
xk.k [kfut vLFkkbZ vuK	12,56,385/-	86,30,857/-	95,46,501/-
;kx	**40,49,76,981/-**	**41,35,50,802/-**	**42,81,33,454/-**

5. DETAILS OF PRODUCTION OF SAND OR BAJRI OR MINOR MINERAL IN LAST THREE YEARS

Ø-	[kfut	o"k 2012&2013	o"k 2013&2014	o"k 2014&2015
1	Q'kh iRFkj	72849 ?k-eh-	81233 ?k-eh-	39016 ?k-eh-
2	iRFkj fxVVh	243023 ?k-eh-	257396 ?k-eh-	994643 ?k-eh-
3	iRFkj	8466 ?k-eh-	1588 ?k-eh-	118946 ?k-eh-
4	jr	2701 ?k-eh-	6092 ?k-eh-	4030 ?k-eh-
5	eje	18857 ?k-eh-	237536 ?k-eh-	14882 ?k-eh-
6	feVVh	900 ?k-eh-	1170 ?k-eh-	&

6. PROCESS OF DEPOSITION OF SEDIMENTS IN THE RIVERS

Rivers have a lot of energy and because they have energy, they do stuff. The obvious things rivers do with their energy is flow but, besides this, they also transport load, erode load and erode the channel through which they flow.

Erosion

Erosion is the breaking down of material by an agent. In the case of a river, the agent is water. The water can erode the river's channel and the river's load. A river's load is bits of eroded material, generally rocks, which the river transports until it deposits its load.

A river's channel is eroded laterally and vertically making the channel wider and deeper. The intensity of lateral and vertical erosion is dictated by the stage in the river's course, discussed in more detail here but essentially, in the upper stage of the river's course (close to the source of the river) there is little horizontal erosion and lots of vertical erosion. In the middle and lower stages vertical erosion is reduced and more horizontal erosion takes place.

There are several different ways that a river erodes its bed and banks. The first is *hydraulic action*, where the force of the water removes rock particles from the bed and banks. This type of erosion is strongest at rapids and waterfalls where the water has a high velocity. The next type of erosion is *corrasion*. This is where the river's load acts almost like sandpaper, removing pieces of rock as the load rubs against the bed & banks. This sort of erosion is strongest when the river is transporting large chunks of rock or after heavy rainfall when the river's flow is turbulent.

Corrosion is a special type of erosion that only affects certain types of rocks. Water, being ever so slightly acidic, will react with certain rocks and dissolve them. Corrosion is highly effective if the rock type of the channel is chalk or limestone (anything containing calcium carbonate) otherwise, it doesn't have much of an effect.

Cavitation is an interesting method of erosion. Air bubbles trapped in the water get compressed into small spaces like cracks in the river's banks. These bubbles eventually

implode creating a small shockwave that weakens the rocks. The shockwaves are very weak but over time the rock will be weakened to the point at which it falls apart.

The final type of erosion is *attrition*. Attrition is a way of eroding the river's load, not the bed and banks. Attrition is where pieces of rock in the river's load knock together, breaking chunks of rock off of one another and gradually rounding and shrinking the load.

Transportation

When a river erodes the eroded material becomes the river's load and the river will then transport this load through its course until it deposits the load. There are a few different ways that a river will transport load depending on how much energy the river has and how big the load is.

The largest of particles such as boulders are transported by *traction*. These particles are rolled along the bed of the river, eroding the bed and the particles in the process, because the river doesn't have enough energy to move these large particles in any other way.

Slightly smaller particles, such as pebbles and gravel, are transported by *saltation*. This is where the load bounces along the bed of the river because the river has enough energy to lift the particles off the bed but the particles are too heavy to travel by suspension.

Fine particles like clay and silt are transported in *suspension*; they are suspended in the water. Most of a river's load is transported by suspension.

Solution is a special method of transportation. This is where particles are dissolved into the water so only rocks that are soluble, such as limestone or chalk, can be transported in solution.

Capacity & Competence

Rivers can only carry so much load depending on their energy. The maximum volume of load that a river can carry at a specific point in its course is called the river's *capacity*. The biggest sized particle that a river could carry at a specific point is called the river's *competence*.

Deposition

To transport load a river needs to have energy so when a river loses energy it is forced to deposit its load. There's several reasons why a river could lose energy. If the river's discharge is reduced then the river will lose energy because it isn't flowing as quickly anymore. This could happen because of a lack of precipitation or an increase in evaporation. Increased human use (abstraction) of a river could also reduce its discharge forcing it deposit its load. If the gradient of the river's course flattens out, the river will deposit its load because it will be travelling a lot slower. When a river meets the sea a river will deposit its load because the gradient is generally reduced at sea level and the sea will absorb a lot of energy.

As rivers get nearer to their mouths they flow in increasingly wide, gentle sided valleys. The channel increases in size to hold the extra water which the river has to receive from its tributaries. As the river gets bigger it can carry larger amounts of material. This material will be small in size, as larger rocks will have broken up on their way from the mountains. Much of the material will be carried in suspension and will erode the river banks by abrasion. When rivers flow over flatter land, they develop large bends called meanders.

As a river goes around a bend most of the water is pushed towards the outside causing increased erosion. The river is now eroding sideways into its banks rather than downwards into its bed, a process called lateral erosion. On the inside of the bend, in contrast, there is much less water. The river will therefore be shallow and slow-flowing. It cannot carry as much material and so sand and shingle will be deposited. This is called a point bar or slip off slope

Due to erosion on the outside of a bend and deposition on the inside, the shape of a meander will change over a period of time. Notice how erosion narrows the neck of the land within the meander. In time, and usually during a flood, the river will cut right through the neck. The river will then take the new, shorter route. The fastest current, called the thalweg, will now tend to be in the centre of the river, and so deposition is likely to occur in gentler water next to the banks. Eventually deposition will block off the old meander to

leave an oxbow lake. The oxbow lake will slowly dry up , only refilling after heavy rain or during a flood.

Streams lose velocity and make deposits when their gradient decreases, when the volume of water decreases, when there is an increase in cross section, when they encounter obstructions, or when they enter still water. They deposit alluvial fans, alluvial cones, piedmont alluvial plains, channel fill, bars, flood plains and deltas.

7. GENERAL PROFILE OF THE DISTRICT

S. No	ITEMS	STATISTICS
1.	**GENERAL INFORMATION**: (As per 2011 census).	
	(i) Geographical Area	4256 sq.kms.
	(ii) Administrative Divisions:	
	a. Number of Tehsils	6
	b. Number of Blocks	3
	c. Number of Villages	798
	(iii) Population (2011)	8,25,958
	(iv) Normal Rainfall	797.96 (mm)
2.	**GEOMORPHOLOGY**	
	Major Physiographic units: The district lies under the Malwa plateau. It can broadly be divided into two physical divisions. The Northen and Southern plateau under the traps. The Northern plateau division occupies the northern part of the district in Manasa, Jawad and Rampura towns. Its southern limits run along the proximity of Jawad and Rampura towns. It is formed of the upper Vindhyan system's sandstone, shales and the basal conglomerate. Northern plateau is also marked by three scarp-lines running parallel from west to east. The Lower plateau under trapes occupies the southern and central parts of the district. The area is typical and in continuation of the wide Malwa plateau further south and east. The surface is and undulating plain studded with low hills and mounds, and traversed by numerous streams. The general slope is from south to north. **Major Drainages**: Almost entire district is falling under Chambal sub-basins area of the Ganga Basin. A very small area to the south west of Jiran in Neemuch block flows into Jakam a tributatey of Mahi and drains into Arabian Sea. The river Chambal is flowing in eastern part of the district in northeast direction. The Retam, Idar, Erda, Rupa, Bamm, Gangali & Rajori are main tributaries of the Chambal River and all are flowing either east or northeast direction. Gambhir River flowing north of Jawad town in northwest part of the district is only westerly flowing river. The drainage pattern of the area is dendritic in nature.	

3.	**LAND USE** (in sq.kms.) (i) Forest Area : (ii) Net area sown: (iii) Cultivable area:	 944.87 1868.4 2901.1
4.	**MAJOR SOIL TYPES:** Black cotton soil	
5.	**PRINCIPAL CROPS** Wheat, cotton etc.	
6.	**GEOLOGY**	

Pleistocene to Recent		Lime kankar, Laterite, Soil etc.
Cretaceous-Eocene	Deccan Trap	Basalt
Upper Proterozoic-Lower Palaeozoic	Vindhyans	Limestone, Sandstone, Quartzite, Shale and Breccia
Middle Proterozoic	Delhis	Jiran Sandstone Binota shale
Archeans		Not exposed

7.	**MINERAL RESOURCES** (i) Major mineral (ii) Minor mineral	 Limestone Flagstone, Stone, sand and muram

8-: LAND UTILIZATION PATTERN IN THE DISTRICT: FOREST, AGRICULTURE, HORTICULTURE, MINING ETC.

Total Area and Classification of Area in Neemach District of MADHYAPRADESH State for the year ending 2013- 14 (in Hectares)

District	Reporting Area For Land Utilization Statistics	Area Under Mining activities	Forests	Not Available For Cultivation			Other Uncultivated Land Excluding Fallow Land				Fallow Land			Net Area Sown	Total Cropped Area	Area Sown More than Once
				Area Under Non Agricultural Uses	Barren and Un-Cultivable Land	Total	Permanent Pastures and Other Grazing Lands	Land Under Misc Tree Crops and Groves not Included in Net Area	Cultivable Waste Land	Total	Fallow Lands Other than Current Fallows	Current Fallow	Total			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Neemach	393555	3156.818 (0.385%)	94413	48382	39826	88208	9325	3	16880	26208	750	728	1478	183248	311079	127831

-- Means Not Reported / Not Available or Reported Zero

9-: **PHYSIOGRAPHY OF THE DISTRICT**

The district lies on the Malwa plateau. It can be divided in to two physical divisions, i.e. the northern plateau formed by vindhyan system and the Malwa plateau covered under the Deccan Trap Basalt. This geological formation gives a clear distinction to this physical division. The present day topography is more or less similar with the topography present in the Cretaceous-Eocene period, when the eruption of Deccan Trap Basalt was started.

Neemuch district forms the part of Malwa plateau. It can broadly be divided into two physical divisions; northern plateau consists of Vindhyan rocks and southern Malwa plateau, under trap with gentle sloping topography. The highest elevation of 573 m amsl in the district is recorded at northwestern corner of the district in Jawad tehsil, comprising of upper Vindhyan rocks. The lowest elevation in the district is recorded about 410 m msl located near village Latwas (24º 20' – 75º 25') in Neemuch block occupied by basaltic rocks.

The district is generally covered with black cotton soils covering almost three fourths of the area. This part is occupied by Deccan Basalts. The rest part has red-yellow mixed soils derived from sandstone, shale, and gneiss. The alluvial soils are found along the river courses. The higher elevations i.e. the hilly regions have a cover of murum, which is made up of small rounded pieces of weathered basalts. The Vindhyans and Bijawars have a thin cover of sandy loams. The alluvium is derived from hill slopes by numerous streams and watercourses

10-: RAINFALL: MONTH-WISE

The climate of Neemuch district is generally dry except the southwest monsoon season. The year can be divided in to four seasons. The winter commences from middle of November and lasts till the end of February. The period from March to about first week of June is the summer season. May is the hottest month of the year. The southwest monsoon starts from middle of June and lasts till end of September. October and middle of November constitute the post monsoon or retreating monsoon season.

The normal annual rainfall of Neemuch district is 797.96mm. District received maximum rainfall during south west monsoon period i.e. June to September. About 90.5 % of the annual rainfall received during monsoon season. Only 9.5 % of the annual rainfall takes place between October to May period. Thus surplus water for ground water recharge is available only during the southwest monsoon period.

The normal maximum temperature received during the month of May is 39.80 C and minimum during the month of January is 9.80 C. The normal daily mean monthly maximum temperature is 31.60 C and daily mean minimum temperature is 19.00 C. The summer season is the driest period of the year. The relative humidity generally exceeds 87% in the month of August. The average normal annual wind velocity of the district is 9.2 km./hr.

RAINFALL IN MILIMETERS			
Month	**2013**	**2014**	**2015**
January	-	67.3	17.1
February	-	14.4	0
March	-	0	29.3
April	-	0	0
May	-	0	1.6
June	219.1	0	83.2
July	505.2	248.1	479.2
August	249.8	368.3	152.8
September	109.0	208.8	3.0
October	32.6	4.3	0
November	0	0	0
December	3.4	0	17.1
TOTAL	**1119.1**	**911.2**	**783.3**

11-: GEOLOGY AND MINERAL WEALTH

The district encompasses huge resources of high grade as well as low-grade limestone, Binota Shale and Laterite with rare occurrence of Calcite, Lime Kankar, Tufa limestone and Iron ore. The high-grade limestone is widely being utilized in the manufacturing of cement while low-grade limestone is being used as dimensional stone. The Binota Shale is being used in the manufacturing of slate pencil.

CEMENT GRADE LIMESTONE:

The limestone belongs to Lower Vindhyan Supergroup and is exposed from Nayagaon to Khor in a 10 km. long and 3 km. wide belt. The important limestone bearing localities are Nayagaon, Khore, Damodarpura, Kheda-rather, Kanka, Kesharpura, Kundla, Morka and Suakheda area. The chemical analysis reveals that this limestone pertains to cement grade quality ranging CaO 41 to 48% MgO 0.48 to 1.12%, Fe_2O_3 0.73 to 1.28%, Al_2O_3 3.22 to 4.62% and SiO2 8.74 to 18.21%. The Directorate of Geology and Mining M. P. and C.C.I. carried out prospecting operation in these areas and proved 236 million tonne of cement grade limestone.

LOW GRADE LIMESTONE:

At present it is the best-preferred flagstone for cutting and polishing purpose of slabs and tiles. The lower Bhander limestone stretches over a long belt of about 16.00 km from Phunsaria to Dhangaon and has breadth of about 3- 5 km. The limestone varies in colour from violet, pink, yellowish and gray. It is fine grained, hard and compact and thickly bedded.

The limestone deposit belonging to Upper Vindhyans has considerable variations of CaO content ranging from 24.67 to 47.10 and SiO2 content 8.56 to 15.60, therefore, it has been categorized under low-grade limestone unsuitable for the manufacture of cement and is being used as dimensional stone. The important occurrences are Dharari, Baneriya, Kawai, Arniya, Devipura, Nayagaon, Bari, Phunsariya, etc.

FLAGGY SANDSTONE:

Three main horizons of sandstone of Vindhyan Super Group occur in the area, which are separated by shale and limestone. These sandstone horizons belong to lower

Rewa sandstone, upper Rewa sandstone and lower Bhander sandstone. The important localities of sandstone are located in the vicinity of village Ratan, Jatpura, Devipura, Pata, Khera Bhangata, Jatliya, Banda, Amba, ayagaon,Pharicha, Rajpura and Motiyara etc. The colour of sandstone varies from brown, light pinkish-brown, light gray to off white in colour. These sandstone found suitable only as highway aggregate, railway ballast, building stone and crushed stone etc. As far as the flagstone is concerned the lower Bhander sandstone is the most important lithounit of the area and it is overlying the Samaria shales. The sandstone is well bedded, splittable and flaggy in nature. This sandstone stretches from the east of Lalganj to north of Chak-sarojir and continue upto N-W of Nayagaon. It is a long belt of about 19 km from east to west and 400-1000 m wide. This sandstone shows different shades of colour ranges from pinkish-yellowish blotched with brown to purple, red and sometimes violet in shades. The flaggy nature of the rock, ease to fissile and pleasing colour it has attracted to people to use it for building purposes and it is being extensively quarried for roofing and flooring.

BINOTA SHALE :

Binota shale occurrences have been recorded in the district around Jiran, Chitakhera and Ghusundi etc. The future prospects to exploit properly the Binota shale in the district are likely to be profitable.It is being used in the manufacturing of Slate pencil.

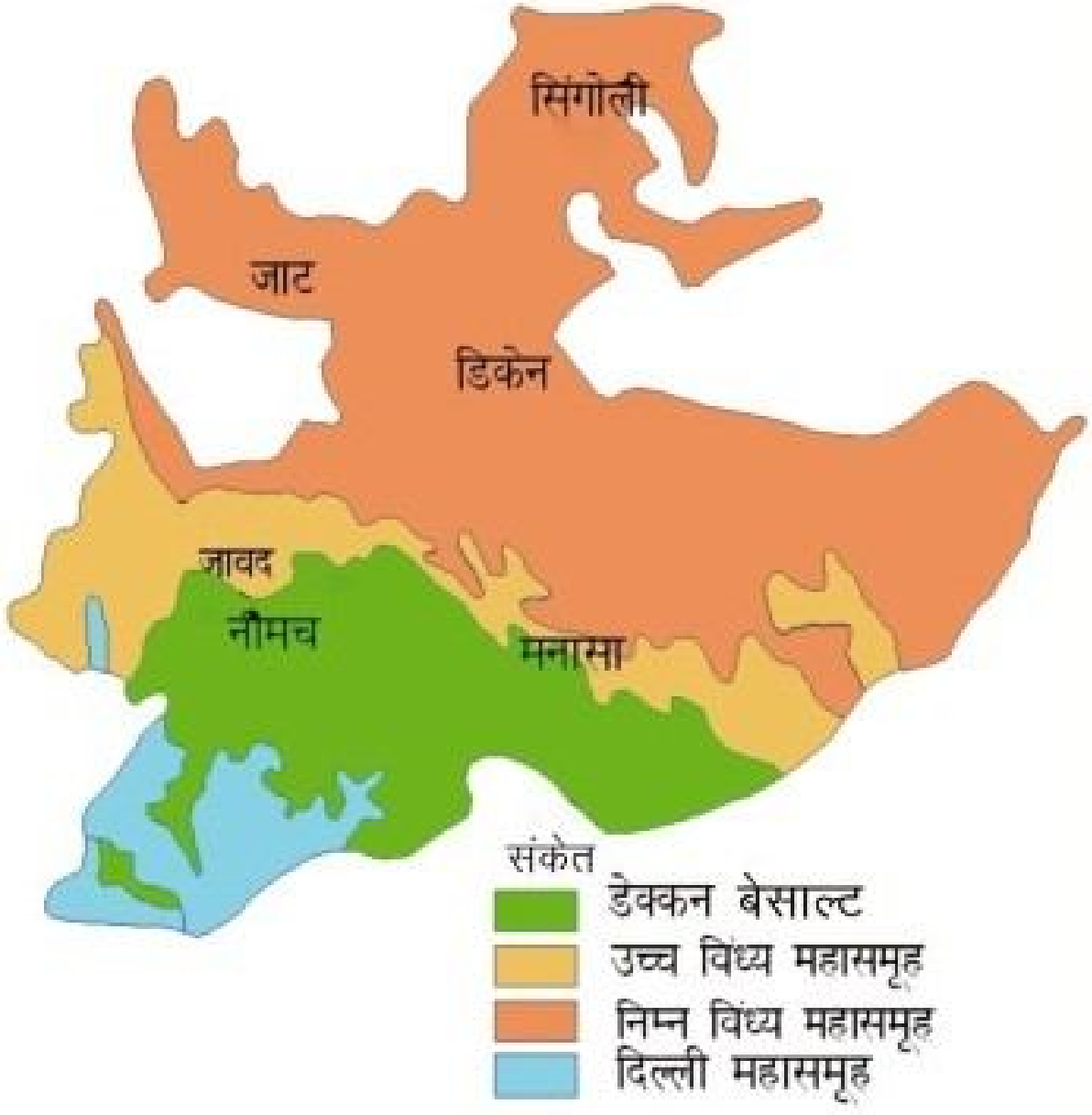
TUFA LIMESTONE :

A small occurrence of Tufa limestone has been recorded in Mahadeonala bank about 3 km. SE of village Umar. It is mixed with quartzite boulders. Limestone covers an area of about 400 sq. m. and with average thickness of 0.5m.The inferred reserve of Tufa limestone is about 460 tonnes.

LIME KANKAR :

Lime kankar deposit is recorded about 2 km SSE of village Piplon in basaltic terrain. There are number of old pits and quarries scattered over an area of about 0.5 sq. km. with the average thickness of lime kankar about 1 m, and inferred reserve is about 57500 tonnes.

भौमिकीय मानचित्र
जिला नीमच मध्यप्रदेश



A DISTRICT WISE DETAIL OF RIVER OR STREAM AND OTHER SAND SOURCE

SERIAL NO.	NAME OF THE RIVER	AREA DRAINED IN THE DIST. (Sq.km.)	% AREA DRAINED IN THE DISTRICT	
1	Chambal	2055	Appro. 50 %	
2	Retam	11.59	0.27%	

SERIAL NO.	NAME OF THE RIVER OR STREAM	TOTAL LENGTH IN THE DISTRICT(IN KM)	PLACE OF ORIGIN	ALTITUDE AT ORIGIN
1	Chambal	56	Janapao, indore district	854.35 m
2	Retam	08	East of Pratabhgarh village	550 m

B DISTRICT WISE AVALIBILITY OF SAND OR GRAVEL OR AGGREGATES

No leases of sand are sanctioned in the district.

C DISTRICT WISE DETAIL OF EXSISTING MINING LEASES OF SAND AND AGGREGATES

PORTION OF THE DISTRICT OR STREAM RECOMMENDED FOR MINERAL CONCESSION	LENGTH OF AREA RECOMMENDED FOR FOR MINERAL CONCESSION(IN KM)	AVERAGE WIDTH OF AREA RECOMMENDED FOR MINERAL CONCESSION (IN METERS)	AREA RECOMMENDED FOR MINERAL CONCESSION (IN SQ. METER)	MINEABLE MINERAL POTENTIAL(IN METRIC TONE) (60% OF TOTAL MINERAL POTENTIAL)

-	-	-	-	-

MINERAL POTENTIAL

Boulder(MT)	Bajri(MT)	Sand (MT)	Total Mineable mineral potential(MT)	Boulder(MT)
Huge as majority of the district is occupied by the minor minerals i.e. basalt and sandstone. But as per figures received from District Mining Section 994643 M^3 of stone/gitti and 39016 M^3 of flagstone and 14882 M^3 of murum was produced in 2014-15	It is associated with river sand	It is found mainly in Chambal and Retam river, though the resources as per their area in the district is very small, the production of sand and bajri is 4030 M^3 in 2014-15	Huge, immense except sand as most of the district is occupied by minor minerals which include basalt .and sandstone and other stones as road metal and soil. Thus mineral potentials are immense.	Huge as majority of the district is occupied by the minor minerals i.e. basalt and sandstone. But as per figures received from District Mining Section 994643 M^3 of stone/gitti and 39016 M^3 of flagstone and 14882 M^3 of murum was produced in 2014-15

ANNUAL DEPOSITION

4030 M3 of sand have been produced In the financial year 2014-15, but as per the information provided by District Mining office Neemach, due to unavailability of sand in the river beds, no sand mine have been declared and auctioned in the year 2015-16. The district is drained by Ganjali, Gambhir, Irda and Retam etc., these are small tributaries of Chambal river and originates in the district.

Sr.no.	River or stream	Portion of the district or stream recommended for mineral concession	Length of area recommended for for mineral concession(in Km)	Average width of area recommended for mineral concession (in meters)	Area recommended for mineral concession (in Sq. meter)	Mineable mineral potential(in metric tone) (60% of total mineral potential	
-	-	-	-	-	-	-	-
Total for the district		-	-	-	-	-	-

The process of sand replenishment is highly dependent upon the rainfall received in the catchment areas of rivers and their tributaries and velocity of river. It is a dynamic

process. Thus it is difficult to predict, what quantity of sand may be reclaimed/replenished by river. Because, in case of less rain, less water in the river, there may be less erosion and transportation may also be minimal and as a result deposition too will be less. Moreover, in case of floods, the sudden gush of water may force the change in the river course, thus old sites of sand deposition may not be relevant. Thus, the above figures may just be a mere prediction, based on the production in the preceding years. More so, practically, it is not possible that in such a short period, single person can visit each spot within the district and determine how much quantity of sand may be replenished every year. The data narrated in the report, regarding annual deposition of sand and associated aggregates and mineable mineral potential is concerned, is only estimation based on the production data provided by the district mining office. Thus, the figures may vary from area to area and year on year basis. Therefore, this document is not static one but have to be a dynamic one, the figures of which may vary with respect to time. The DEAC committee is at liberty to make the spot inspection of the area under question for which the prior environmental clearance will be sought.

In order to establish a safe extraction limit, such that the extracted sand gets replenished annually, a replenishment study is to be carried out. For this purpose, the river bed RL at selected points in the dry portions of Riverbed will be measured during pre–monsoon period and again during post –monsoon period in order to assess the annual quantum of sand deposition. If it is observed that, there is an average increase in riverbed RL, it shows that it is due to deposition of sand during the monsoon flow of the river and by multiplying it with the area of lease one can measure the quantity of sand replenished every year.

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