

Documentation for the
India Village-Level Geospatial Socio-Economic Data Set:
1991, 2001

March 2018

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Abstract

The India Village-Level Geospatial data set provides over 200 socio-economic variables at the finest level of spatial disaggregation in India; over 600,000 administrative units at village/town level (or sub-district/*taluka* level when village/town data are not available). In general, official spatial data on the administrative boundaries of India are made accessible only at district or sub-district level (note the broad administrative hierarchy in India: state>district>sub-district>village/town). This data set provides geospatial boundaries at a higher resolution by digitizing village/town level boundaries from the official cadastral maps published by the Survey of India for 2001. This data set utilizes tabular data for 1991 and 2001 from Primary Census Abstract (PCA) and Village Directory (VD) data series of the Indian census. PCA corresponds to demographic information, while VD primarily includes information on village infrastructure, facilities, and primary occupation, as well as land use information, among others. The data are distributed as GIS shapefiles for each Indian state.

Data set citation:

Meiyappan, P., P.S. Roy, A. Soliman, T. Li, P. Mondal, S. Wang, and A. K. Jain. 2018. India Village-Level Geospatial Socio-Economic Data Set: 1991, 2001. Palisades, NY: NASA Socioeconomic Data and Applications Center (SEDAC).
<https://doi.org/10.7927/H4CN71ZJ>. Accessed DAY MONTH YEAR.

Suggested citation for this document:

Meiyappan, P., P. S. Roy, A. Soliman, T. Li, P. Mondal, S. Wang, and A. K. Jain. 2018. Documentation for the India Village-Level Geospatial Socio-Economic Data Set: 1991, 2001. Palisades NY: NASA Socioeconomic Data and Applications Center (SEDAC). <https://doi.org/10.7927/H43776SR>. Accessed DAY MONTH YEAR.

We appreciate feedback regarding this data set, such as suggestions, discovery of errors, difficulties in using the data, and format preferences. Please contact:

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Contents

I.	Introduction.....	3
II.	Data and Methodology.....	3
III.	Data Set Description(s).....	4
IV.	How to Use the Data.....	5
V.	Potential Use Cases.....	5
VI.	Limitations.....	6
VII.	Acknowledgments.....	6
VIII.	Disclaimer.....	7
IX.	Use Constraints.....	7
X.	Recommended Citation(s).....	7
XI.	Source Code.....	8
XII.	References.....	8
XIII.	Documentation Copyright and License.....	8
	Appendix 1. Contributing Authors & Documentation Revision History.....	8
	Appendix 2. Data Revision History.....	8
	Appendix 3. States, Abbreviations, File Formats.....	9
	Appendix 4. Socio-Economic Variables.....	10

I. Introduction

The India Village-Level Geospatial Socio-Economic Data Set: 1991, 2001 utilizes the official cadastral maps published by the Survey of India to develop a digitized fine-resolution (administrative level: village/town; scale of mapping: 1:50,000) vector data set for all of India for 2001. In addition, several vector data sets for village/town boundaries available for some Indian states were utilized. This vector data set for village/town boundary was then geospatially linked to the tabular data for each village/town for the 1991 and 2001 census, downloaded from the online digital database of the Census of India¹. Prior to linking, the census data went through extensive data cleaning to ensure the data were quality-controlled and standardized.

This geospatial data set includes over 200 socio-economic variables (see Appendix 4) for over 600,000 villages/towns (or sub-district/*taluka* level when village/town data are not available) in India and is the first ever to be made publicly available at the national level. This data set provides a substantial improvement in spatial resolution compared to sub-district/*taluka* boundaries (~5,700 talukas in India), which are also difficult to obtain.

Note that large towns and cities do not have village directory data (see Appendix 4); this is truly a village-level data set. Furthermore, the value of 0 (zero) represents no data if a unit only has zeros across all village directory data fields (true of all towns and cities), but may represent an actual value of 0 where there are non-zero values in other fields. The data were furnished to SEDAC with this limitation, and so users must approach the data with caution (see Section VI. Limitations).

This data set can be combined with satellite-derived or meteorological data sets to better understand the spatial changes in various socio-economic characteristics of Indian population. Thus, this data set will provide a useful social science application of GIS.

II. Data and Methodology

A more detailed description of the methodology has been provided in Supplementary Text S1 of Meiyappan et al. (2017).

Input data

Tabular data from the Primary Census Abstract (PCA) and Village Directory (VD) for each village/town were downloaded from the online digital database of the Census of India for 1991 and 2001. The official cadastral maps published by the Survey of India

¹ See <http://censusindia.gov.in/>

were utilized to develop the vector data set for the village/town boundaries that correspond to the census data.

Methods

National level vector data (polygon shapefile) were created for the finest administrative level (village/town) by digitizing boundaries from the official hard copy cadastral maps (analog maps) published by the Survey of India. First, the village boundaries and some control points were identified on the scanned cadastral maps (one map per sub-district). After digitally reducing the scale by 10 times, the scanned maps were co-registered using the control points. For each sub-district (zone), three control points were collected on the ground for all of India, available from the project collaborators. In undulating terrains, five control points were used for each zone. The scanned maps were then geometrically corrected at a scale of 1:50000 using the UTM 44N zone-specific control points. Polygon layers were then created by digitizing the geometrically corrected scanned maps. The village names and other village coding details were manually entered for each digitized village. The polygon layers for the village/town were then joined at the state level to form seamless boundaries between sub-districts, often using edge-matching and other adjustments. Finally, the state-wise data were combined to achieve national coverage. For four states in northeast India (Arunachal Pradesh, Nagaland, Manipur, and Meghalaya), the authors used sub-district/*taluka* level boundaries because village/town level cadastral maps were difficult to acquire and/or unavailable.

Tabular data from the PCA and VD were collected for each village/town for 1991 and 2001 census from the online digital database of the Census of India. Extensive data cleaning was undertaken to ensure the data were quality-controlled and standardized (to the extent possible). PCA and VD were combined into a single database by linking them together using the unique village/town identification code. The authors linked both the 1991 and 2001 tabular data to geospatial shapefile using the unique village identifier while accounting for region-specific data limitations (e.g. systematic errors in computerizing village identification codes for certain sub-districts). For the northeastern states where only sub-district/*taluka* boundaries were available, the authors aggregated data for all villages within a single sub-district/*taluka*, and linked the sub-district level tabular data to the corresponding polygon.

III. Data Set Description

Data set description:

The polygon shapefile for all of India has over 600,000 records for each year. The number of non-null records from the census depends on the year. A table (Appendix 4) is also provided for the census data description.

Data set web page:

<http://sedac.ciesin.columbia.edu/data/set/india-india-village-level-geospatial-socio-econ-1991-2001>

Data set format:

The files for this data set are available as polygon layer shapefile (.shp) and/or as an Esri Geodatabase (.gdb) for each of the states separately. Each downloadable is a compressed zip file containing a GIS shapefile with the administrative boundaries linked to the census data. For some states, the downloadable is a compressed zip file containing a GDB file with the administrative boundaries linked to the census data.

Data set downloads:

india-india-village-level-geospatial-socio-econ-1991-2001-XX-1991-shp.zip
india-india-village-level-geospatial-socio-econ-1991-2001-XX-2001-shp.zip
india-india-village-level-geospatial-socio-econ-1991-2001-XX-1991-gdb.zip
india-india-village-level-geospatial-socio-econ-1991-2001-XX-2001-gdb.zip

where XX are state abbreviations.

Two additional zip files are available that provide the boundaries and census data for the combined Union Territories for 1991 and 2001 (except some missing data).

india-india-village-level-geospatial-socio-econ-1991-2001-uterr-1991-shp.zip
india-india-village-level-geospatial-socio-econ-1991-2001-uterr-2001-shp.zip

See Appendix 3 for the States, Abbreviations, and File Formats table.

IV. How to Use the Data

The GIS-ready vector files can be used directly in mapping and geospatial analysis.

V. Potential Use Cases

This new data set can be combined with satellite-derived or meteorological data sets to better understand the spatial changes in various socio-economic characteristics of Indian population. Thus, this data set will provide a useful social science application of GIS.

These data are of use to anyone seeking a high resolution socioeconomic data set for India. The data can be used for spatial statistical analyses on their own, for the construction of development-related indices, or in combination with remote sensing data.

The data set can also be used to track socio-economic changes in Indian population over the decades. For example, when combined with census data from other years (e.g. 2011), this data set can be used to identify spatial-temporal changes in different demographic categories, such as male, female, urban, rural, level of education, etc.

VI. Limitations

The data set has a number of limitations that owing to the size and complexity of the data could not be fully addressed. Users should be aware of these limitations in making use of the data in research.

1. The authors noticed topological inconsistencies at the national level. For example, duplicate polygons, inconsistent polygon topologies and mismatching of polygon edges were found along the state boundaries as a result of combining geospatial data from multiple sources as well as changes in village boundaries during the data collection period. Because of time and resource constraints, the topological errors were not corrected.
2. The village ID assignment was done using a semi-automated method, and in many cases was assigned manually, while in other cases the authors matched areas of the vector polygon with areas of the village in the census table when they had high confidence (given the authors knew the state and district to which the polygon belongs, with village names). In cases where the name of a village could have slightly different spelling between vector polygon and census tabular data, the authors implemented spell-matching techniques to match those villages.
3. It should be noted that in some regions, data quality may be poor due to misreporting, human errors in computerization, quality of village/town boundaries, or data missing due to political strife (e.g., in the state of Jammu and Kashmir).
4. The value of 0 (zero) represents no data if a unit only has zeros across all village directory data fields (true of all towns and cities), but may represent an actual value of 0 for villages with non-zero values in other fields. SEDAC did not have sufficient documentation to be able to make a determination of the actual value of those fields.

VII. Acknowledgments

Funding for development of this data set was provided by the NASA LCLUC program (NNG13HQ04C) and National Science Foundation (grant number: 1443080). Any opinions, findings, and conclusions or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the National Science Foundation.

Funding for dissemination of this data set was provided under the NASA contract NNG13HQ04C for the continued operation of the Socioeconomic Data and Applications Center (SEDAC), which is operated by the Center for International Earth Science Information Network (CIESIN) of Columbia University.

VIII. Disclaimer

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X. Recommended Citation(s)

Data set(s):

Meiyappan, P., P. S. Roy, A. Soliman, T. Li, P. Mondal, S. Wang, and A. K. Jain. 2018. India Village-Level Geospatial Socio-Economic Data Set. Palisades, NY: NASA Socioeconomic Data and Applications Center (SEDAC). <https://doi.org/10.7927/H4CN71ZJ>. Accessed DAY MONTH YEAR.

Scientific publication:

Meiyappan, P., P. S. Roy, Y. Sharma, R. M. Ramachandran, P. K. Joshi, R. S. DeFries, and A. K. Jain. 2017. Dynamics and Determinants of Land Change in India: Integrating Satellite data with Village Socioeconomics. *Regional Environmental Change* 17 (3): 753. <https://doi.org/10.1007/s10113-016-1068-2>.

XI. Source Code

No source code is provided.

XII. References

Meiyappan, P., P. S. Roy, Y. Sharma, R. M. Ramachandran, P. K. Joshi, R. S. DeFries, and A. K. Jain. 2017. Dynamics and Determinants of Land Change in India: Integrating Satellite data with Village Socioeconomics. *Regional Environmental Change* 17 (3): 753. <https://doi.org/10.1007/s10113-016-1068-2>.

XIII. Documentation Copyright and License

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Appendix 1. Data Revision History

No revisions have been made to this data set.

Appendix 2. Contributing Authors & Documentation Revision History

Revision Date	Contributors	Revisions
March 12, 2018	P. Mondal, A. de Sherbinin	This document is the 1 st instance of documentation.

Appendix 3. States, Abbreviations, File Formats

State	Abbreviation	1991	2001
Andhra Pradesh	AP	Shp	Shp
Arunachal Pradesh	AR	Shp	GDB
Assam	AS	Shp	Shp
Bihar	BR	GDB	Shp
Chhattisgarh	CG	-	Shp
Goa	GA	Shp	Shp
Gujarat	GJ	Shp	Shp
Haryana	HR	Shp	Shp
Himachal Pradesh	HP	Shp	Shp
Jammu & Kashmir	JK	-	Shp
Jharkhand	JH	-	Shp
Karnataka	KA	Shp	Shp
Kerala	KL	Shp	Shp
Madhya Pradesh	MP	Shp	Shp
Maharashtra	MH	Shp	Shp
Manipur	MN	Shp	Shp
Meghalaya	ML	-	GDB
Mizoram	MZ	Shp	Shp
Nagaland	NL	-	GDB
Odisha	OR	Shp	Shp
Punjab	PB	Shp	Shp
Rajasthan	RJ	Shp	Shp
Sikkim	SK	Shp	Shp
Tamil Nadu	TN	Shp	Shp
Tripura	TR	Shp	Shp
Uttar Pradesh	UP	Shp	Shp
Uttarakhand	UK	-	Shp
West Bengal	WB	Shp	Shp
Union Territories	UTERR	Shp	Shp

Appendix 4. Socio-Economic Variables

The following list of variables from the 2001 census was compiled using multiple data sources as noted. It is thus possible to have duplicate fields in the following list. The field 'UID' should be used to perform any spatial join.

DATA SOURCE: PCA - Primary Census Abstract, VD - Village Directory

FIELD	DESCRIPTION	DATA SOURCE
SID	State ID	2001 village boundary shapefile
DID	District ID	2001 village boundary shapefile
TID	Tehsil ID	2001 village boundary shapefile
VILL_CODE	Village Code	2001 village boundary shapefile
C_CODE01	Code combining state ID, district ID, tehsil ID and village ID	2001 village boundary shapefile
NAME	Name of area	2001 village boundary shapefile
UID	Unique ID	2001 village boundary shapefile
CENSUS_COD	Area code as derived from census	2001 PCA
STATE	State Code	2001 PCA
DISTRICT	District Code	2001 PCA
SUB_DIST	Tahsil Code	2001 PCA
TOWN_VILL	Town/Village Code	2001 PCA
WARD	Ward Code	2001 PCA
EB	Enumeration Block Code	2001 PCA
LEVEL	Level of Area	2001 PCA
NAME_1	Name of Area	2001 PCA
TRU	Total/Rural/Urban	2001 PCA
No_HH	Number of Households	2001 PCA
TOT_P	Total Population	2001 PCA
TOT_M	Total Male Population	2001 PCA
TOT_F	Total Female Population	2001 PCA
P_06	0-6 Age Group Persons	2001 PCA
M_06	0-6 Age Group Males	2001 PCA
F_06	0-6 Age Group Females	2001 PCA
P_SC	Scheduled Caste Persons	2001 PCA

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Documentation for the India Village-Level Geospatial Socio-Economic Data Set, v1
(1991, 2001)

M_SC	Scheduled Caste Males	2001 PCA
F_SC	Scheduled Caste Females	2001 PCA
P_ST	Scheduled Tribe Persons	2001 PCA
M_ST	Scheduled Tribe Males	2001 PCA
F_ST	Scheduled Tribe Females	2001 PCA
P_LIT	Person Literates	2001 PCA
M_LIT	Male Literates	2001 PCA
F_LIT	Female Literates	2001 PCA
P_ILL	Person Illiterates	2001 PCA
M_ILL	Male Illiterates	2001 PCA
F_ILL	Female Illiterates	2001 PCA
TOT_WORK_P	Total Workers (Main + Marginal) Persons	2001 PCA
TOT_WORK_M	Total Workers (Main + Marginal) Males	2001 PCA
TOT_WORK_F	Total Workers (Main + Marginal) Females	2001 PCA
MAINWORK_P	Main Workers - Persons	2001 PCA
MAINWORK_M	Main Workers - Males	2001 PCA
MAINWORK_F	Main Workers - Females	2001 PCA
MAIN_CL_P	Main Workers Cultivators - Persons	2001 PCA
MAIN_CL_M	Main Workers Cultivators - Males	2001 PCA
MAIN_CL_F	Main Workers Cultivators - Females	2001 PCA
MAIN_AL_P	Main Workers Agricultural Laborers - Persons	2001 PCA
MAIN_AL_M	Main Workers Agricultural Laborers - Males	2001 PCA
MAIN_AL_F	Main Workers Agricultural Laborers - Females	2001 PCA
MAIN_HH_P	Main Workers Household Industry - Persons	2001 PCA
MAIN_HH_M	Main Workers Household Industry - Males	2001 PCA
MAIN_HH_F	Main Workers Household Industry - Females	2001 PCA
MAIN_OT_P	Main Workers Other - Persons	2001 PCA
MAIN_OT_M	Main Workers Other - Males	2001 PCA
MAIN_OT_F	Main Workers Other - Females	2001 PCA

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(1991, 2001)

MARGWORK_P	Marginal Workers - Persons	2001 PCA
MARGWORK_M	Marginal Workers - Males	2001 PCA
MARGWORK_F	Marginal Workers - Females	2001 PCA
MARG_CL_P	Marginal Workers Cultivators - Persons	2001 PCA
MARG_CL_M	Marginal Workers Cultivators - Males	2001 PCA
MARG_CL_F	Marginal Workers Cultivators - Females	2001 PCA
MARG_AL_P	Marginal Workers Agricultural Laborers - Persons	2001 PCA
MARG_AL_M	Marginal Workers Agricultural Laborers - Males	2001 PCA
MARG_AL_F	Marginal Workers Agricultural Laborers - Females	2001 PCA
MARG_HH_P	Marginal Workers Household Industry - Persons	2001 PCA
MARG_HH_M	Marginal Workers Household Industry - Males	2001 PCA
MARG_HH_F	Marginal Workers Household Industry - Females	2001 PCA
MARG_OT_P	Marginal Workers Other - Persons	2001 PCA
MARG_OT_M	Marginal Workers Other - Males	2001 PCA
MARG_OT_F	Marginal Workers Other - Females	2001 PCA
NON_WORK_P	Non Workers - Persons	2001 PCA
NON_WORK_M	Non Workers - Males	2001 PCA
NON_WORK_F	Non Workers - Females	2001 PCA
ST_CODE	STATE CODE	2001 VD
DIST_CODE	DISTRICT CODE	2001 VD
THSIL_CODE	TAHSIL/TALUK CODE	2001 VD
BLOCK_CODE	C.D. BLOCK CODE	2001 VD
V_CT_CODE	VILLAGE CODE	2001 VD
VILL_NAME	VILLAGE NAME	2001 VD
AREA	Area of Village (in hectares)	2001 VD
Population data based on 2001 Census		
T_HH	Number of Households	2001 VD
T_P	Total population- Persons	2001 VD

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 (1991, 2001)

T_M	Total population- Males	2001 VD
T_F	Total population- Females	2001 VD
SC_P	Scheduled Castes population- Persons	2001 VD
SC_M	Scheduled Castes population- Males	2001 VD
SC_F	Scheduled Castes population- Females	2001 VD
ST_P	Scheduled Tribes population- Persons	2001 VD
ST_M	Scheduled Tribes population- Males	2001 VD
ST_F	Scheduled Tribes population- Females	2001 VD

Amenities data

EDU_FAC	Educational facilities (A/NA)	2001 VD
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If not available, Range Code is to be provided for primary school, middle school and college

P_SCH	Number of Primary School	2001 VD
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RANG_P_SCH	If not available, Provide the Range Code	2001 VD
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M_SCH	Number of Middle School	2001 VD
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RANG_M_SCH	If not available, Provide the Range Code	2001 VD
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S_SCH	Number of Secondary School	2001 VD
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S_S_SCH	Number of Senior Secondary School	2001 VD
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COLLEGE	Number of Collage	2001 VD
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RANG_COLL	If not available, Provide the Range Code	2001 VD
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IND_SCH	Number of Industrial School	2001 VD
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TR_SCH	Number of Training School	2001 VD
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ADLT_LT_CT	Number of Adult literacy Class/Centre	2001 VD
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OTH_SCH	Number of Other educational facilities	2001 VD
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MEDI_FAC	Medical facilities (A/NA)	2001 VD
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If not available, Range Code is to be provided for Allopathic hospital, Maternity and Child Welfare Centre and Primary Health Centre

ALL_HOSP	Number of Allopathic Hospital	2001 VD
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RANG_ALL	If not available, Provide the Range Code	2001 VD
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AYU_HOSP	Number of Ayurvedic Hospital	2001 VD
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UN_HOSP	Number of Unani Hospital	2001 VD
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HOM_HOSP	Number of Homeopathic Hospital	2001 VD
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(1991, 2001)

ALL_DISP	Number of Allopathic Dispensary	2001 VD
AYU_DISP	Number of Ayurvedic Dispensary	2001 VD
UN_DISP	Number of Unani Dispensary	2001 VD
HOM_DISP	Number of Homeopathic Dispensary	2001 VD
MCW_CNTR	Number of Maternity and Child Welfare Centre	2001 VD
RANG_MCW	If not available, Provide the Range Code	2001 VD
M_HOME	Number of Maternity Home	2001 VD
CWC	Number of Child Welfare Centre	2001 VD
H_CNTR	Number of Health Centre	2001 VD
PH_CNTR	Number of Primary Health Centre	2001 VD
RANG_PHC	If not available, Provide the Range Code	2001 VD
PHS_CNT	Number of Primary Health Sub Centre	2001 VD
FWC_CNTR	Number of Family Welfare Centre	2001 VD
TB_CLN	Number of T.B. Clinic	2001 VD
N_HOME	Number of Nursing Home	2001 VD
RMP	Number of Registered Private Medical Practitioners	2001 VD
SMP	Number of Subsidied Medical Practitioners	2001 VD
CHW	Number of Community Health workers	2001 VD
OTH_CNTR	Number of Other medical facilities	2001 VD
DRNK_WAT_F	Drinking Water facility (A/NA)	2001 VD
RANG_WAT_F	If not available, Provide the Range Code	2001 VD
TAP	Tap Water (T)	2001 VD
WELL	Well Water (W)	2001 VD
TANK	Tank Water (TK)	2001 VD
TUBEWELL	Tubewell Water (TW)	2001 VD
HANDPUMP	Handpump (HP)	2001 VD
RIVER	River Water(R)	2001 VD
CANAL	Canal (C)	2001 VD
LAKE	Lake (L)	2001 VD
SPRING	Spring (S)	2001 VD
OTHER	Other drinking water sources (O)	2001 VD
SOU_SUMM	Source of Drinking Water during Summer (indicate code from above)	2001 VD

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(1991, 2001)*

RANG_SS	If not available, Provide the Range Code	2001 VD
SS_CODE	Source code from above as applicable	2001 VD
P_T_FAC	Post, Telegraph and Telephone facilities (A/NA), if available	2001 VD
POST_OFF	Number of Post Office	2001 VD
RANG_PO	If not available, Provide the Range Code	2001 VD
TELE_OFF	Number of Telegraph Office	2001 VD
POST_TELE	Number of Post and Telegraph Office	2001 VD
PHONE	Number of Telephone connections	2001 VD
RANG_PHONE	If not available, Provide the Range Code	2001 VD
COMM_FAC	Communication (Y/N)	2001 VD
BS_FAC	Bus services	2001 VD
RANG_BS	If not available, Provide the Range Code	2001 VD
RS_FAC	Railways services	2001 VD
RANG_RS	If not available, Provide the Range Code	2001 VD
NW_FAC	Navigable water way including River, Canal etc.	2001 VD
RANG_NW	If not available, Provide the Range Code	2001 VD
BANK_FAC	Banking facility (Y/N)	2001 VD
COMM_BANK	Number of Commercial Bank	2001 VD
RANG_COMM	If not available, Provide the Range Code	2001 VD
COOP_BANK	Number of Co-operative Commercial Bank	2001 VD
RANG_COOP	If not available, Provide the Range Code	2001 VD
CRSOC_FAC	Credit Societies (Y/N)	2001 VD
AC_SOC	Number of Agricultural Credit Societies	2001 VD
RANG_ACS	If not available, Provide the Range Code	2001 VD
NAC_SOC	Number of Non Agricultural Credit Societies	2001 VD
RANG_NAC	If not available, Provide the Range Code	2001 VD
OTHER_SOC	Number of Other Credit Societies	2001 VD

NASA Socioeconomic Data and Applications Center (SEDAC)
 Documentation for the India Village-Level Geospatial Socio-Economic Data Set, v1
 (1991, 2001)

RANG_OTH	If not available, Provide the Range Code	2001 VD
RC_FAC	Recreational and Cultural facilities (Y/N)	2001 VD
C_V_HALL	Number of Cinema/Video-hall	2001 VD
RANG_CV	If not available, Provide the Range Code	2001 VD
SP_CL_FAC	Number of Sports Club	2001 VD
RANG_SPCL	If not available, Provide the Range Code	2001 VD
ST_AU_FAC	Number of Stadium/Auditorium	2001 VD
RANG_STAU	If not available, Provide the Range Code	2001 VD
Approach to Village (Y/N)		
APP_PR	Approach - Paved Road	2001 VD
APP_MR	Approach - Mud Road	2001 VD
APP_FP	Approach - Foot Path	2001 VD
APP_NAVRIV	Approach - Navigable River	2001 VD
APP_NAVCAN	Approach - Navigable Canal	2001 VD
APP_NW	Approach - Navigable water-way other than river or canal	2001 VD
NEAR_TOWN	Nearest Town	2001 VD
DIST_TOWN	Distance from the nearest Town (in Kilometer(s))	2001 VD
POWER_SUPL	Power supply (A/NA)	2001 VD
POWER_DOM	Electricity for Domestic use	2001 VD
POWER_AGR	Electricity of Agricultural use	2001 VD
POWER_OTH	Electricity of other purposes	2001 VD
POWER_ALL	Electricity for all purposes	2001 VD
PAP_MAG	Newspaper/Magazine (Y/N)	2001 VD
NEWS_PAP	News Paper (Indicate N, if arrived)	2001 VD
MAGAZINE	Magazine (indicate M, if arrived)	2001 VD
Income and Expenditure of the village (in Rs.' 00)		
A_INCEXP	Separate figures available (Y/N), if Yes:	2001 VD
TOT_INC	Total Income	2001 VD
TOT_EXP	Total Expenditure	2001 VD
Most Important Commodities manufactured		
MAN_COMM1	Manufactured Item No. 1	2001 VD
MAN_COMM2	Manufactured Item No. 2	2001 VD
MAN_COMM3	Manufactured Item No. 3	2001 VD

Land use (i.e. area under different types (rounded up to two decimal places)) in hectares		
LAND_FORES	Forest	2001 VD
Irrigated (by source)		
CANAL_GOVT	Government Canal	2001 VD
CANAL_PVT	Private Canal	2001 VD
WELL_WO_EL	Well (without electricity)	2001 VD
WELL_W_EL	Well (with electricity)	2001 VD
TW_WO_EL	Tube-well (without electricity)	2001 VD
TW_W_EL	Tube-well (with electricity)	2001 VD
TANK_IRR	Tank	2001 VD
RIVER_IRR	River	2001 VD
LAKE_IRR	Lake	2001 VD
W_FALL	Waterfall	2001 VD
OTH_IRR	Others	2001 VD
TOT_IRR	Total Irrigated Area	2001 VD
UN_IRR	Unirrigated Area	2001 VD
CULT_WASTE	Culturable waste (including gauchar and groves)	2001 VD
AREA_NA_CU	Area not available for cultivation	2001 VD

(Y/N) = YES/NO, (A/NA) = AVAILABLE/NOT AVAILABLE

Codes used for Y/N and A/NA:

- 1 - YES or AVAILABLE
- 2 - NO or NOT AVAILABLE
- 0 - NIL INFORMATION/ NOT AVAILABLE

Codes used for giving distance by ranges where amenities are not available:

- Range Code 1 - < 5 Km
- Range Code 2 - 5 to 10 Km
- Range Code 3 - > 10 Km

Note: In case the village has electricity for all purposes, code '1' is given in field "POWER_ALL" and code '0' is used in fields "POWER_DOM", "POWER_AGR" and "POWER_OTH" instead of code '1'.

Sources:

- http://latur.nic.in/html/Census2011/Population2011_latur.pdf
- http://www.sakti.in/index.php?option=com_content&view=article&id=302&catid=112

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