Appendix - A

Table 1 Available data of earthquakes in Saurashtra region from 1872 since 2020 compiled from various sources (after Vanik et al., 2021).

Year	Latitude	Longitude	Magnitude	Location	Source
1872	21.750	72.150	5	Bhavnagar	1
1883	21.700	71.970	4.4	Bhavnagar	7
1886	22.470	70.100	4.4	Jamnagar	7
1887	22.300	70.880	4.4	Rajkot	7
1891	21.330	71.370	4.4	Amreli	7
1919	21.700	72.250	5.7	Ghogha	1
1930	22.400	71.800	4.3	Paliyad	1
1938	22.400	71.800	5	Paliyad	1
1938	22.400	71.800	5.7	Paliyad	1
1940	22.500	70.400	5	Jamvanathali	1
1968	21.600	71.250	4.3	Amreli	3
1968	21.730	70.450	4.3	Dhoraji	3
1975	22.100	71.200	4.3	Jasdan	3
1979	21.330	72.150	3.3	Bhavnagar	2
1979	21.830	73.850	2.6	Rajpipla	2
1979	21.330	72.120	3.6	Bhavnagar	2
1979	21.750	72.150	3.3	Bhavnagar	2
1982	21.900	72.270	3.2	Bhavnagar	2
1982	21.860	72.040	3.5	Bhavnagar	2
1985	21.030	70.880	4.3	Visavadar	2
1986	20.600	71.400	3.8	Rajula	2
1993	20.600	71.400	3.1	Rajula	2
1993	20.600	71.400	5	Rajula	4
1993	21.120	72.720	4.1	Rajula	5
1993	20.641	71.365	5	Offshore	7
1998	22.420	70.860	4.4	Rajkot	4
1998	21.810	71.930	3	Bhavnagar	2
1999	21.700	72.100	2.5	Bhavnagar	2
2000	21.780	72.310	3.6	Bhavnagar	2
2000	21.458	71.123	4.7	S of Amreli	7
2000	21.020	70.990	4.6	Tulsi Shyam	5
2000	21.720	72.160	4.2	Bhavnagar	4
2001	23.019	70.484	4.8	NW of Morbi	7
2001	21.020	70.880	2.5	Tulsi Shyam,	2
2001	22.587	69.846	4	NW of Jamnagar	7
2001	23.045	70.521	4.2	NW of Morbi	7
2001	22.979	70.543	4.4	NW of Morbi	7
2003	22.300	70.930	2	Rajkot	2
2003	23.149	70.636	4.1	NNW of Morbi	7
2003	21.460	70.510	3.1	Haripur, Junagadh	4
2003	22.200	69.920	2.5	Lalpur	2
2004	21.000	70.500	3	Talala	2

2004	22.418	70.474	4.2	SSE of Dhrol	7
2006	22.310	70.210	4	Khankotda	6
2007	22.490	71.290	3.9	Paliyad	6
2007	22.330	70.220	3.2	Khankotda	6
2007	21.080	70.730	3.1	Ankolwadi	6
2007	21.120	70.510	4.8	Hirenvel	6
2007	21.160	70.540	5	Haripur	6
2007	21.229	70.898	4.9	S of Mithapur	7
2007	21.181	70.724	5.1	Sasan Gir	7
2007	21.930	69.820	2.9	Bhanwad	6
2008	21.790	71.760	2.8	Bhavnagar	6
2008	21.223	70.995	3.8	Facharia	7
2009	22.170	70.750	3	Rajkot	6
2011	21.270	70.490	4.1	Talala	6
2011	21.100	70.530	4	Talala	6
2011	22.430	70.930	2.6	Rajkot	6
2011	22.380	69.990	3.4	Lalpur	6
2011	22.650	72.470	1.5	Dholka	6
2011	21.260	71.190	3.1	Visavadar	6
2011	21.090	70.450	5.1	Talala	6
2012	21.109	70.518	3.2	Talala	6
2012	21.118	72.290	3.2	Offshore	6
2012	21.716	72.405	3	Offshore	6
2012	21.684	72.050	2.6	Bhavanagar	6
2012	22.487	71.549	2.4	Surendranagar	6
2012	22.259	69.930	3.7	Rajkot	6
2012	20.629	70.457	3	Offshore	6
2012	22.074	70.103	2.7	Jamnagar	6
2012	21.127	70.570	2.3	Talala	6
2013	22.560	68.820	3.3	Offshore	6
2013	21.990	69.850	2	Near Bhanvad	6
2013	21.130	70.570	2.2	NNE of Talala	6
2013	22.860	71.460	2.7	NNW of Surendranagar	6
2013	21.140	70.820	2.1	ENE of Talala	6
2013	21.670	71.990	2.2	SSE of Shihor	6
2013	21.180	70.570	2.3	NNE of Talala	6
2013	22.720	70.930	2.9	ESE of Morbi	6
2013	21.310	70.780	2.2	NNE of Talala	6
2013	22.460	71.630	2.5	SSE of Surendranagar	6
2013	21.150	70.700	2.3	ENE of Talala	6
2013	21.390	70.180	2.3	Bhanvad	6
2013	22.490	71.530	2.5	SSW of Surendranagar	6
2013	21.430	72.430	2.4	SSE of Bhavnagar	6
2013	23.200	70.980	2	NNE of Morbi	6
2013	21.670	72.020	2.1	WSW of Bhavnagar	6
2013	21.670	72.020	2	WSW of Bhavnagar	6

2013	21.080	70.690	2.8	ENE of Talala	6
2013	20.630	70.090	2.2	SSW of Mangrol	6
2013	21.870	70.520	2	ENE of Upleta	6
2013	21.180	70.610	3.4	NNE of Talala	6
2013	21.310	71.100	2	SSW of Amreli	6
2013	20.280	70.390	2.1	SSW of Talala	6
2013	22.210	71.260	2.2	WNW of Botad	6
2013	21.160	70.650	2.5	ENE of Talala	6
2013	21.010	69.630	2	WSW of Mangrol	6
2013	21.660	72.000	2.1	WSW of Bhavnagar	6
2013	21.240	70.460	2.2	NNW of Talala	6
2013	21.230	70.440	3.6	NNW of Talala	6
2013	21.130	71.160	2.1	NNE of Una	6
2013	21.710	71.990	2.4	WSW of Bhavnagar	6
2013	22.370	71.200	2.2	ENE of Rajkot	6
2013	22.440	71.270	2.5	WSW of Surendranagar	6
2013	22.450	71.290	2.6	WSW of Surendranagar	6
2013	20.590	71.430	2.1	ESE of Una	6
2016	21.002	69.642	4.4	Mangrol	6
2019	22.525	71.566	1.7	SSW of Surendranagar	6
2019	20.580	70.787	4.1	SSW of Una	6
2019	22.451	71.507	2	SSW of Surendranagar	6
2019	22.298	70.263	2.2	ESE of Jamnagar	6
2019	22.290	70.227	2.1	SSE of Jamnagar	6
2019	22.242	70.174	1.9	ENE of Lalpur	6
2020	20.840	70.004	4	Mangrol, Saurashtra	6
2020	22.157	70.888	4.8	Rajkot	6
2020	22.255	70.993	4.1	Rajkot	7
2020	22.190	770.854	2.1	Rajkot	6
2020	21.058	70.613	2.9	Talala	6
2020	22.405	71.013	2	W of Chotila	6
2020	22.269	70.186	2.2	WNW of Kalavad	6
2020	22.375	71.035	1.7	WSW of Chotila	6
2020	21.343	70.502	1.7	SSE of Junagadh	6
2020	22.246	70.171	2.1	ENE of Lalpur	6
2020	22.167	70.200	1.6	ENE of Lalpur	6
2020	22.219	70.228	1.8	ENE of Lalpur	6
2020	22.230	70.173	2.2	ENE of Lalpur	6
2020	21.757	71.997	1.9	N of Sihor	6
2020	22.233	70.260	2.0	ENE of Lalpur	6
2020	22.257	70.184	2.3	ENE of Lalpur	6
2020	22.267	70.243	3.1	ENE of Lalpur	6
2020	22.263	70.209	2.4	ENE of Lalpur	6
2020	22.313	70.235	2.1	ENE of Lalpur	6

2020	22.259	70.239	2.2	ENE of Lalpur	6
2020	22.256	70.238	2.4	ENE of Lalpur	6
2020	22.256	70.242	2.7	ENE of Lalpur	6
2020	22.242	70.243	2.2	ENE of Lalpur	6
2020	21.863	70.442	1.7	NE of Upleta	6
2020	22.234	70.241	3.5	ENE of Lalpur	6
2020	22.261	70.242	1.7	ENE of Lalpur	6
2020	22.224	70.241	2.8	ENE of Lalpur	6
2020	22.283	70.179	2.1	ENE of Lalpur	6
2020	22.277	70.201	2.3	SSE from Jamnagar	6
2020	22.295	70.169	2.3	SSE from Jamnagar	6
2020	22.252	70.174	2.4	ENE of Lalpur	6
2020	22.242	70.267	2.5	ENE of Lalpur	6
2020	22.262	70.235	2.5	ENE of Lalpur	6

1- CHAN- Umesh Chandra, 1977, *Bulletin of Seismological Society of America*, 67 (5), 1387-1413

2- GERI- Gujarat Engineering Research Institute, Gujarat, India

3- GSI- Geological Survey of India, Seismotectonic atlas of India and its environs, 2000

4- IMD- India Meteorological Department, New Delhi, India

5- ISC- International Seismological Center, U.K.

6- ISR- Institute of Seismological Research (ISR), Gandhinagar, Gujarat

7- USGS- United States Geological Survey (USGS), National Earthquake Information Center