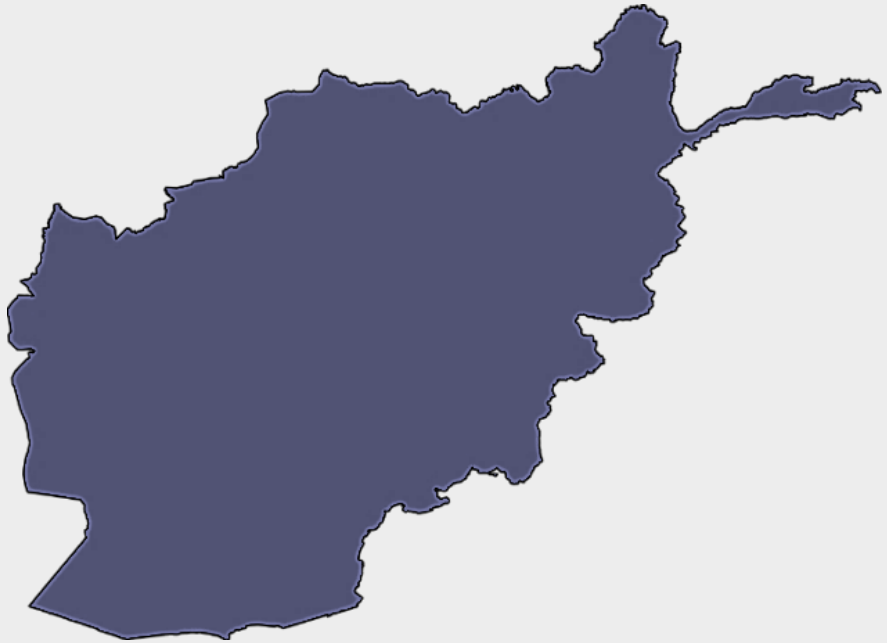
Islamic Republic of Afghanistan
Office of State Minister for Disaster Management & Humanitarian Affairs



Enhancing Preparedness for Climate Related Disasters Using Space-Based Technologies

www.andma.gov.af

Remote assessment System

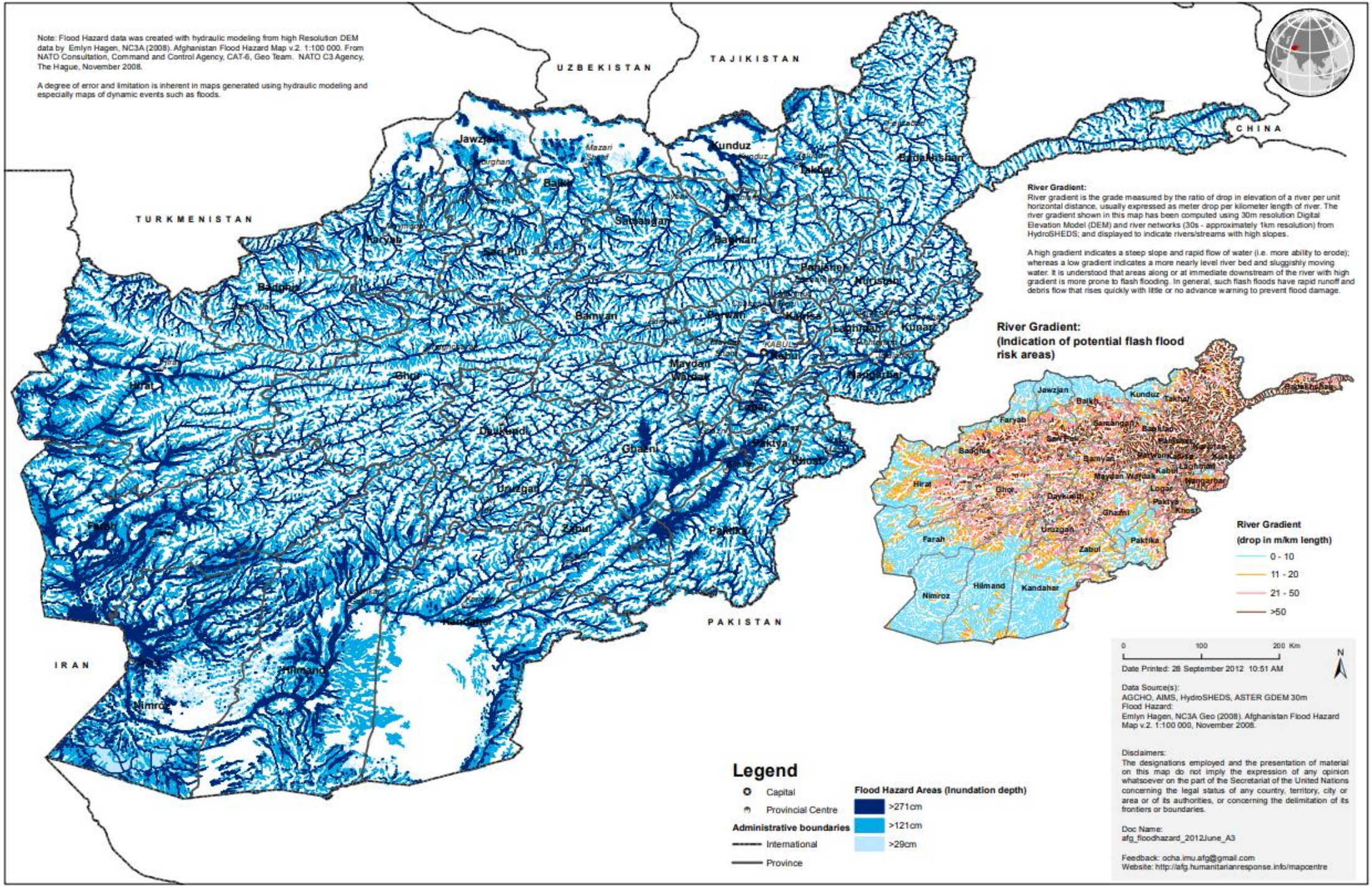
Hazards

Population

Accessibility

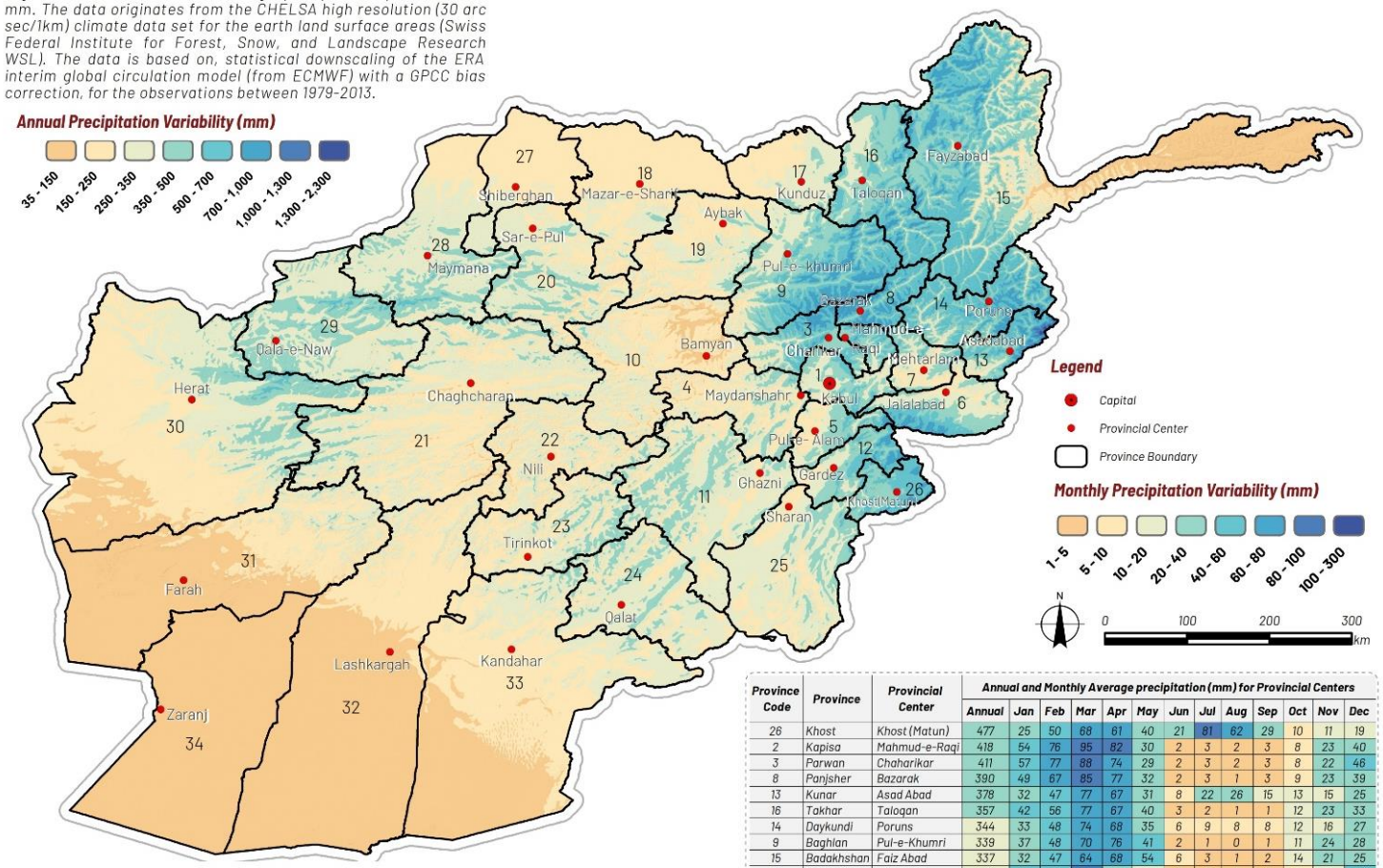
anhdc.andma.gov.af

Flood Hazard and River Gradient

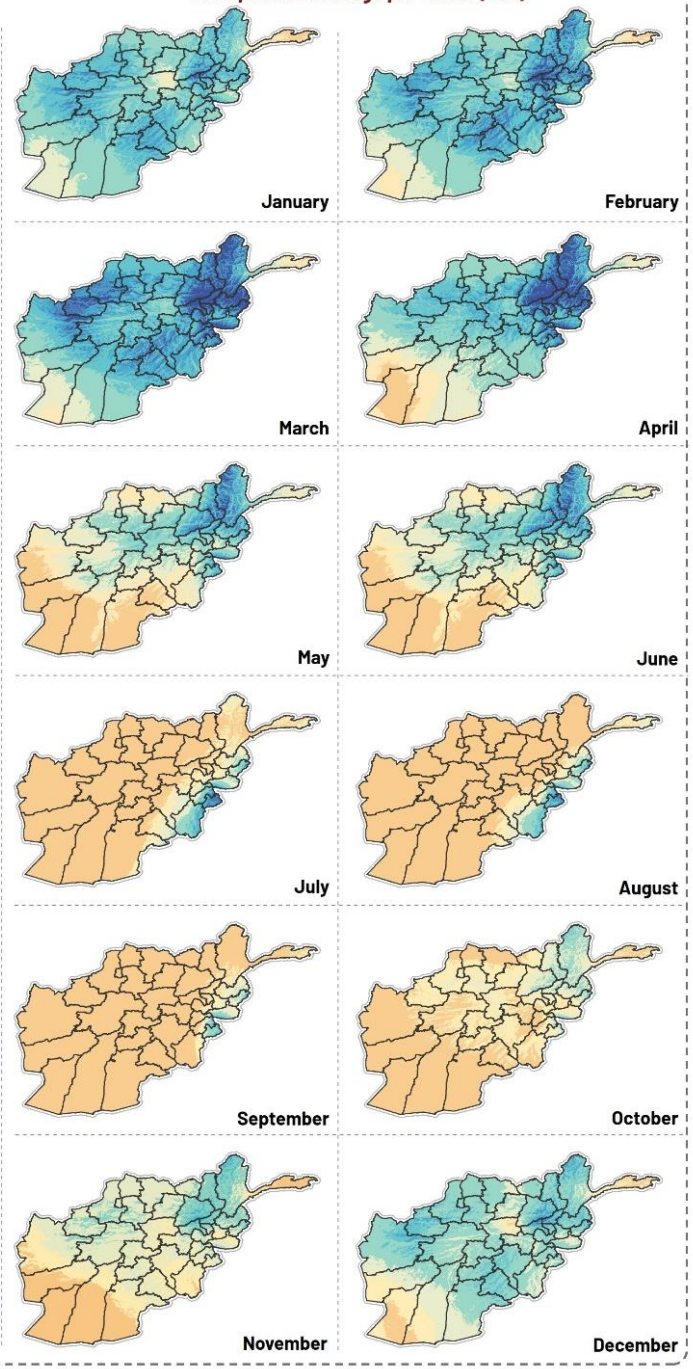


Annual and Monthly Average Precipitation In Afghanistan

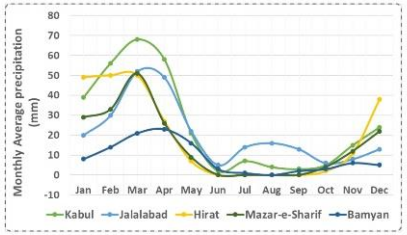
This map shows the average annual total precipitation in Afghanistan as well as the average precipitation per month in mm. The data originates from the CHELSA high resolution (30 arc sec/1km) climate data set for the earth land surface areas (Swiss Federal Institute for Forest, Snow, and Landscape Research WSL). The data is based on, statistical downscaling of the ERA interim global circulation model (from ECMWF) with a GPCC bias correction, for the observations between 1979-2013.



Precipitation Average per Month (mm)



Major Cities Monthly Average Precipitation



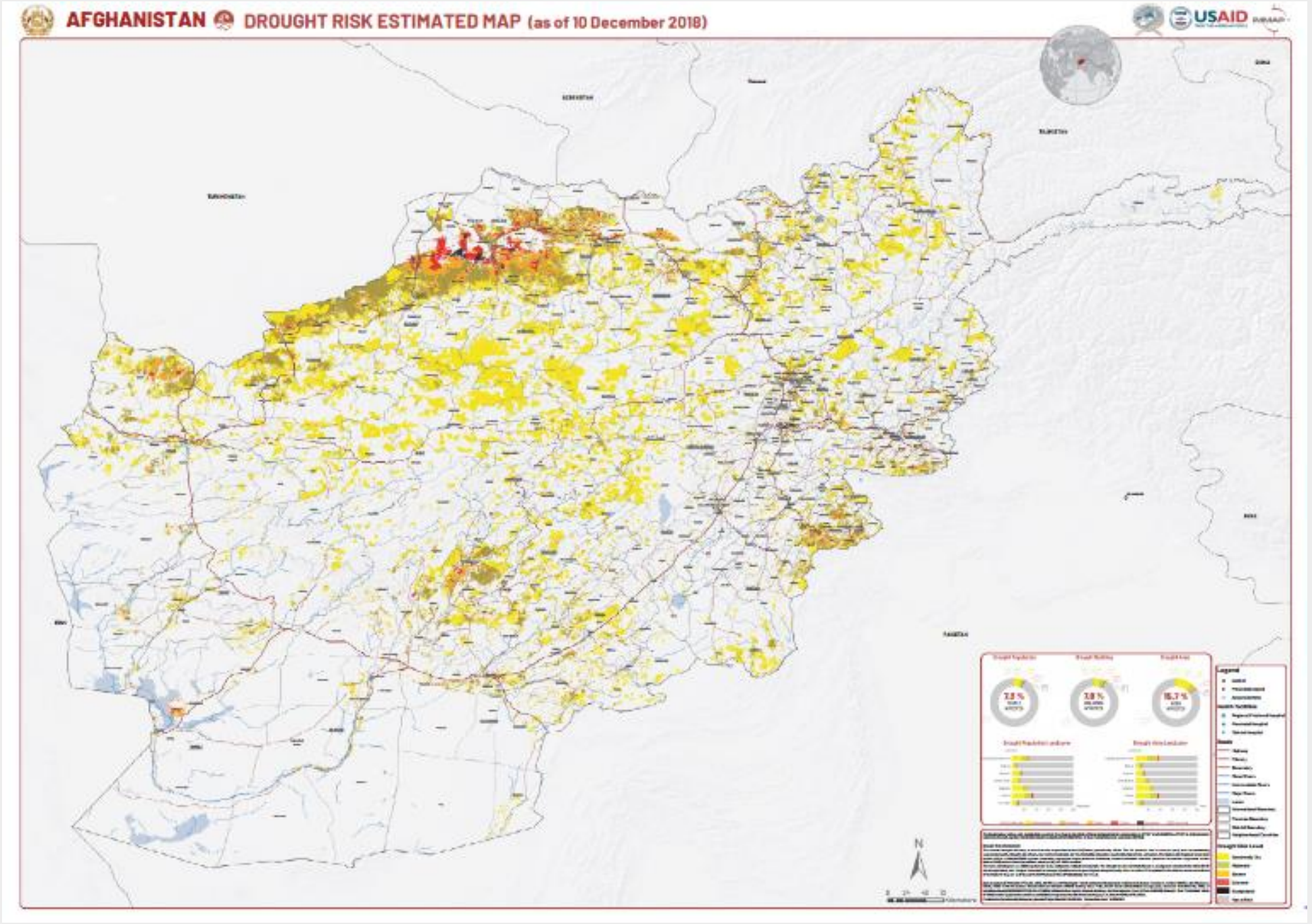
Major Cities Annual Average Precipitation

Province Code	Province	Provincial Center	Annual and Monthly Average precipitation (mm) for Provincial Centers												
			Annual	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
26	Khost	Khost (Matun)	477	25	50	68	61	40	21	81	62	29	10	11	19
2	Kapisa	Mahmud-e-Raqi	418	54	76	95	82	30	2	3	2	3	8	23	40
3	Parwan	Chaharikar	411	57	77	88	74	29	2	3	2	3	8	22	46
8	Panjsher	Bazarak	390	49	67	85	77	32	2	3	1	3	9	23	39
13	Kunar	Asad Abad	378	32	47	77	67	31	8	22	26	15	13	15	25
16	Takhar	Talogan	357	42	56	77	67	40	3	2	1	1	12	23	33
14	Daykundi	Poruns	344	33	48	74	68	35	6	9	8	8	12	16	27
9	Baghlan	Pul-e-Khumri	339	37	48	70	76	41	2	1	0	1	11	24	28
15	Badakhshan	Faiz Abad	337	32	47	64	68	54	6	3	1	2	14	21	25
29	Badghis	Qala-e-naw	310	51	60	82	40	12	0	0	0	1	6	16	42
1	Kabul	Kabul	302	39	56	68	58	21	2	7	4	3	5	15	24
28	Faryab	Maymana	300	45	50	76	46	20	1	0	0	0	8	19	35
17	Kunduz	Kunduz	297	42	52	72	48	23	0	1	0	0	8	21	30
12	Paktya	Gardez	291	31	52	62	54	16	5	19	12	3	4	11	22
24	Zabul	Qalat	262	58	64	59	19	3	0	5	4	0	3	10	37
6	Nangarhar	Jalalabad	248	20	30	52	49	22	5	14	16	13	6	8	13
27	Jawzjan	Shiberghan	241	44	43	61	28	11	0	0	0	0	7	15	32
4	Wardak	Maydan Shahr	240	33	46	56	45	15	1	5	3	1	3	12	20
7	Laghman	Mehtarlam	239	25	35	52	50	18	3	7	8	9	5	9	18
20	Sar-e-Pul	Sar-e-pul	238	40	41	59	31	15	0	0	0	0	9	14	29
30	Hirat	Herat	234	49	50	50	27	7	0	0	0	0	2	11	38
11	Ghazni	Ghazni	232	33	45	53	36	10	1	12	7	0	4	10	21
23	Uruzgan	Tirin Kot	213	42	51	54	17	7	0	1	0	0	4	11	26
33	Kandahar	Kandahar	212	48	47	54	20	5	0	2	0	0	2	8	26
5	Logar	Pul-e-Alam	203	27	38	42	39	13	2	9	5	1	2	9	16
25	Paktika	Sharan	201	27	39	45	25	7	2	17	12	1	4	7	15
19	Samangan	Aybak	194	24	30	47	38	19	0	0	0	0	6	13	17
18	Balkh	Mazar-e-Sharif	186	29	33	51	26	9	0	0	0	0	4	12	22
22	Nuristan	Nili	185	33	39	36	25	12	1	0	0	0	5	9	25
21	Ghor	Chaghcharan	169	32	28	34	29	12	1	0	0	0	3	11	19
32	Hilmand	Lashkar Gah	136	31	31	36	10	5	0	0	0	0	2	4	17
10	Bamyan	Bamyan	102	8	14	21	23	16	3	1	0	2	3	6	5
31	Farah	Farah	96	24	22	27	7	2	0	0	0	0	1	3	10
34	Nimroz	Zaranj	48	15	10	13	3	0	0	0	0	0	1	1	5

Datum/projection: WGS84/Geographic
Data Sources: CHELSA, AGCHO
Date Created: 20/July/2020

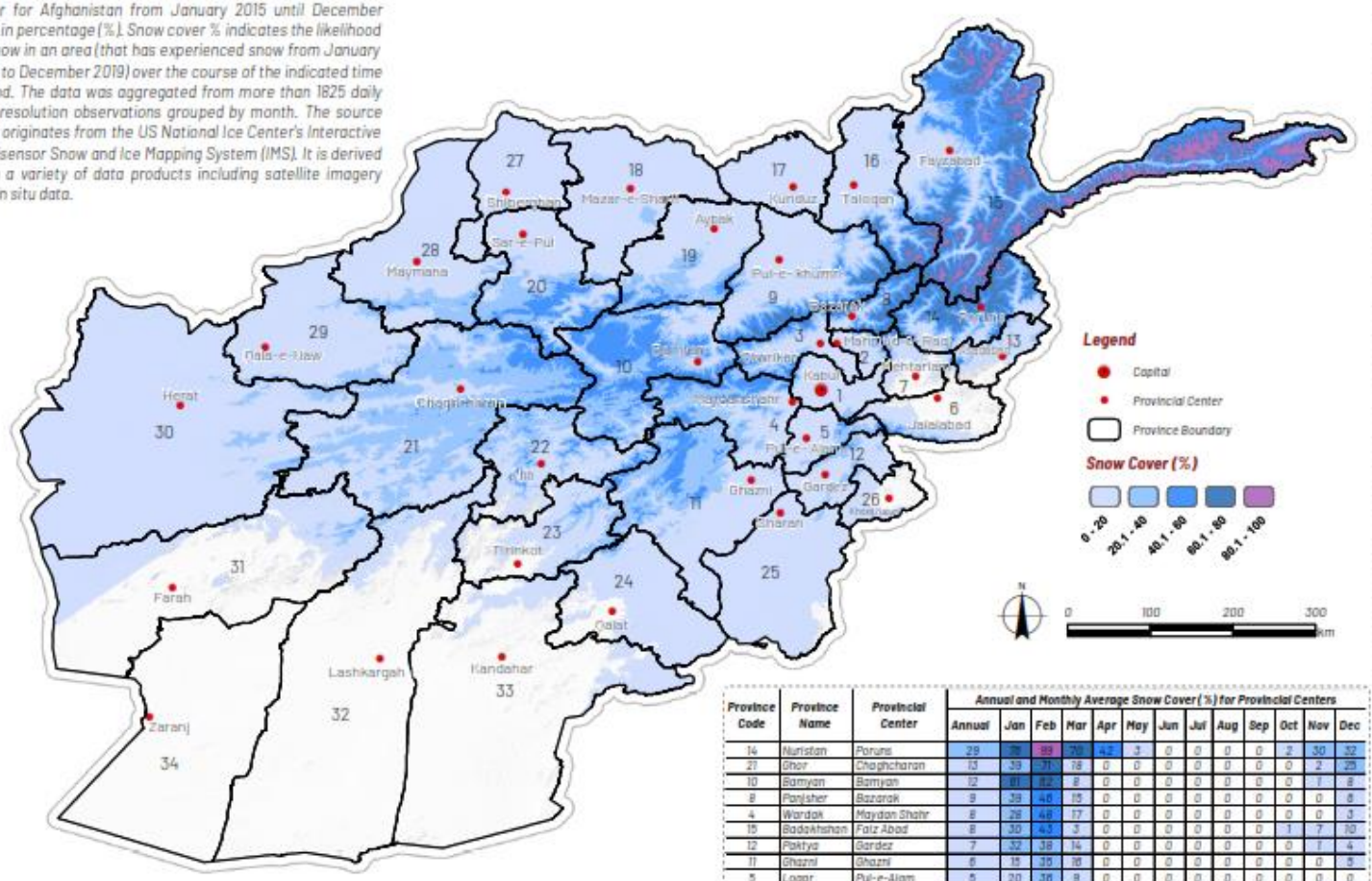
Feedback: afghanistan@immap.org

Drought Risk

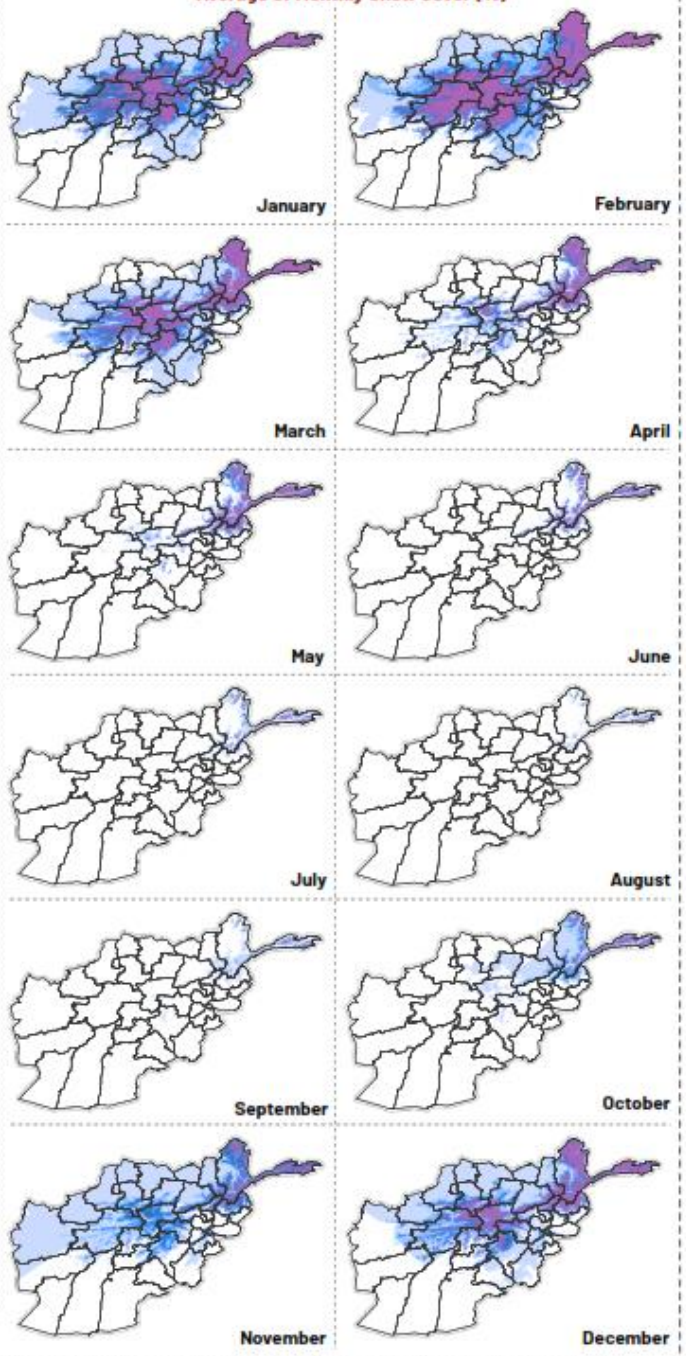


Annual and Monthly Average Snow Cover in Afghanistan

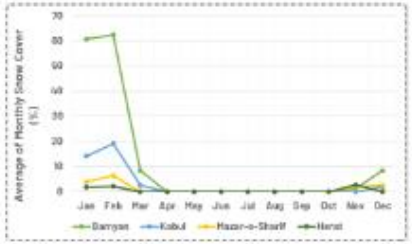
This map shows annual and monthly average snow and ice cover for Afghanistan from January 2015 until December 2019 in percentage (%). Snow cover % indicates the likelihood of snow in an area (that has experienced snow from January 2015 to December 2019) over the course of the indicated time period. The data was aggregated from more than 1825 daily 1km resolution observations grouped by month. The source data originates from the US National Ice Center's Interactive Multisensor Snow and Ice Mapping System (IMS). It is derived from a variety of data products including satellite imagery and in situ data.



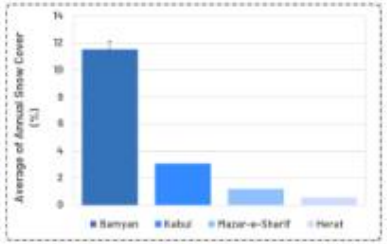
Average of Monthly Snow Cover (%)



Major Cities Monthly Average Snow Cover



Major Cities Annual Average Snow Cover

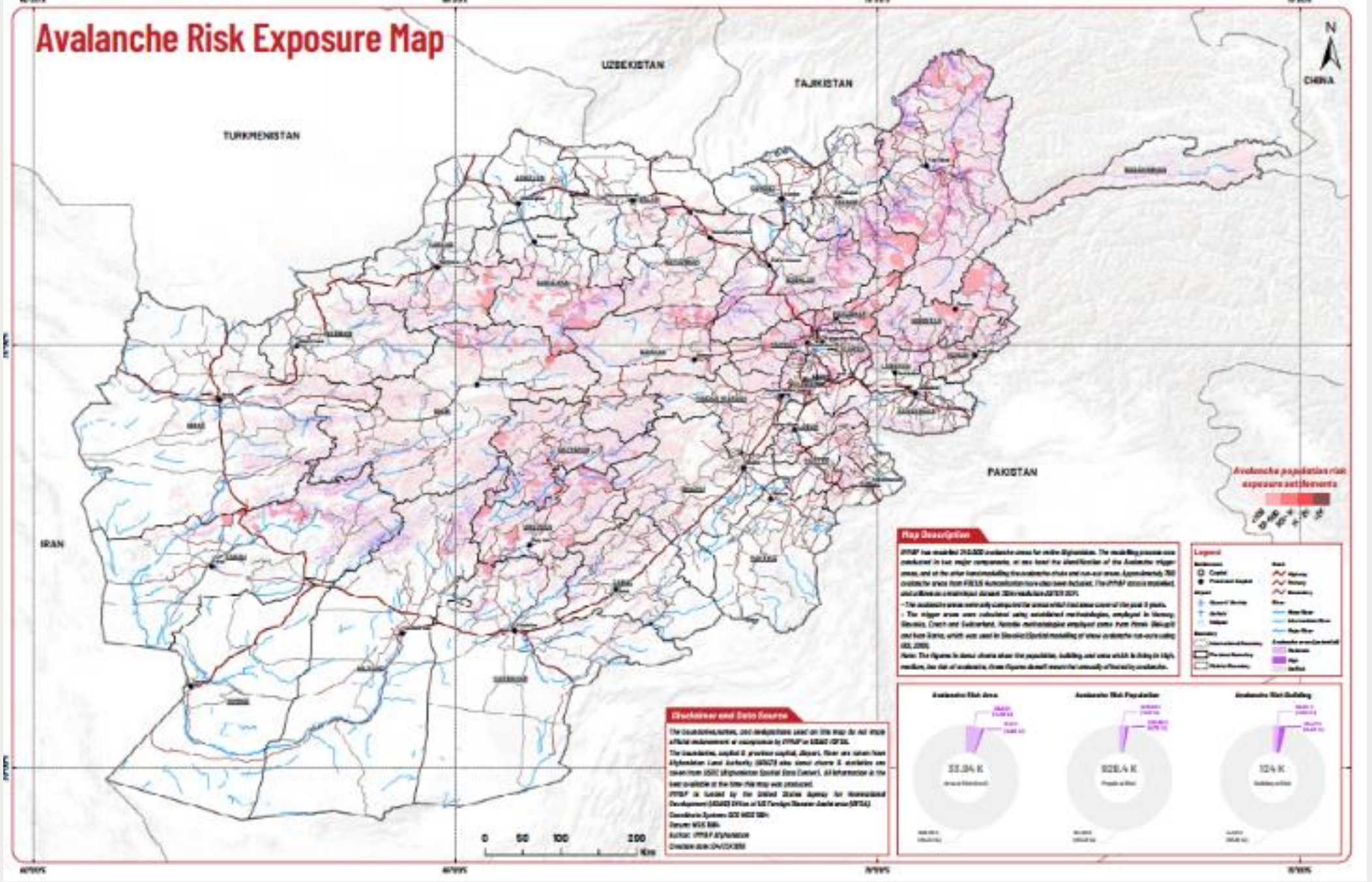


Province Code	Province Name	Provincial Center	Annual and Monthly Average Snow Cover (%) for Provincial Centers											
			Annual	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
14	Nuristan	Parun	29	35	39	30	42	3	0	0	0	0	2	30	32
21	Ghor	Chaghcharan	13	39	31	16	0	0	0	0	0	0	0	2	25
10	Bamyan	Bamyan	12	81	82	8	0	0	0	0	0	0	0	1	8
8	Panjsher	Bazarak	9	39	46	15	0	0	0	0	0	0	0	0	6
4	Wardak	Maydan Shahr	8	29	48	17	0	0	0	0	0	0	0	0	3
15	Badakhshan	Faiz Abad	8	30	43	3	0	0	0	0	0	0	1	7	10
12	Paktya	Gardez	7	32	38	14	0	0	0	0	0	0	0	1	4
11	Ghazni	Ghazni	6	15	35	16	0	0	0	0	0	0	0	0	5
5	Logar	Pul-e-Alam	5	20	36	9	0	0	0	0	0	0	0	0	0
25	Paktika	Sharan	5	15	31	15	0	0	0	0	0	0	0	3	1
19	Samangan	Aybak	5	13	26	4	0	0	0	0	0	0	1	7	14
9	Baghlan	Pul-e-Khumri	5	8	25	7	0	0	0	0	0	0	1	6	8
16	Takhar	Taloqan	4	8	26	1	0	0	0	0	0	0	1	7	3
29	Badghis	Qala-e-naw	4	13	20	5	0	0	0	0	0	0	0	6	3
28	Faryab	Maymana	4	8	20	2	0	0	0	0	0	0	0	9	5
1	Kabul	Kabul	3	14	19	3	0	0	0	0	0	0	0	0	2
20	Sar-e-Pul	Sar-e-pul	3	5	19	0	0	0	0	0	0	0	0	9	5
3	Parwan	Charikar	3	10	13	12	0	0	0	0	0	0	0	0	2
17	Kunduz	Kunduz	3	8	16	0	0	0	0	0	0	0	0	7	5
2	Kapisa	Mahmud-e-Raqi	3	11	13	6	0	0	0	0	0	0	0	0	0
22	Daykundi	Nili	2	10	11	3	0	0	0	0	0	0	0	0	0
27	Jowzjan	Shibirghan	1.3	5	7	0	0	0	0	0	0	0	0	1	3
18	Balkh	Mazar-e-sharif	1.2	4	6	0	0	0	0	0	0	0	0	2	3
30	Hirat	Herat	0.5	2	2	0	0	0	0	0	0	0	0	3	0
13	Kunar	Asad Abad	0.3	2	1	0	0	0	0	0	0	0	0	0	0
34	Nimroz	Zaranj	0	0	0	0	0	0	0	0	0	0	0	0	0
33	Kandahar	Kandahar	0	0	0	0	0	0	0	0	0	0	0	0	0
32	Hilmand	Lashkar Gah	0	0	0	0	0	0	0	0	0	0	0	0	0
31	Farah	Farah	0	0	0	0	0	0	0	0	0	0	0	0	0
26	Khost	Khost (Matun)	0	0	0	0	0	0	0	0	0	0	0	0	0
24	Zabul	Qalat	0	0	0	0	0	0	0	0	0	0	0	0	0
23	Urozgan	Tirin Kot	0	0	0	0	0	0	0	0	0	0	0	0	0
7	Laghman	Mehtarlam	0	0	0	0	0	0	0	0	0	0	0	0	0
8	Nangarhar	Jalalabad	0	0	0	0	0	0	0	0	0	0	0	0	0

Datum/projection: WGS84/Geographic
Data Sources: NSIDC, AGCHO
Date Created: July 9, 2020

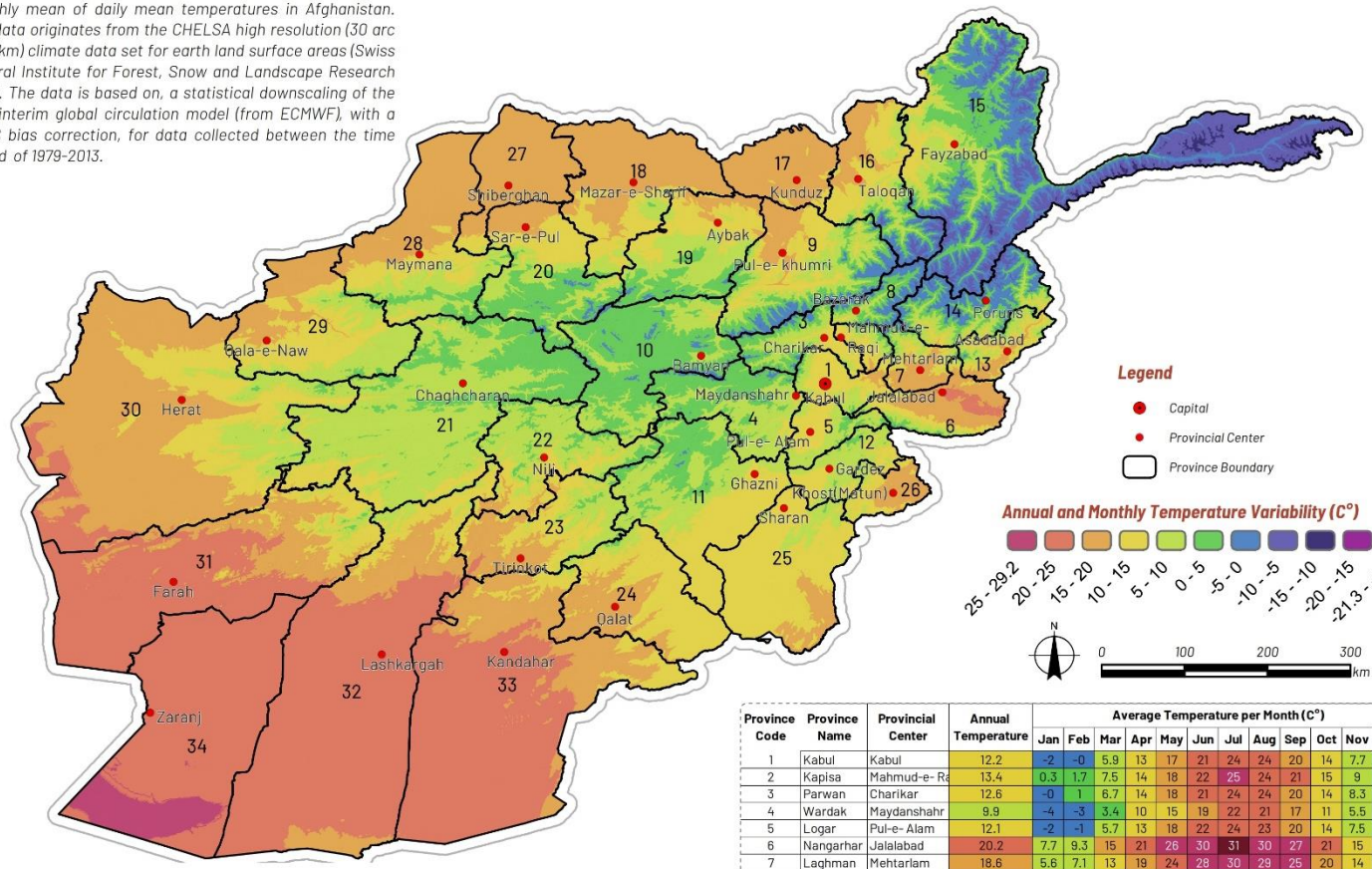
Feedback: afghanistan@immap.org

Avalanche Risk Exposure Map

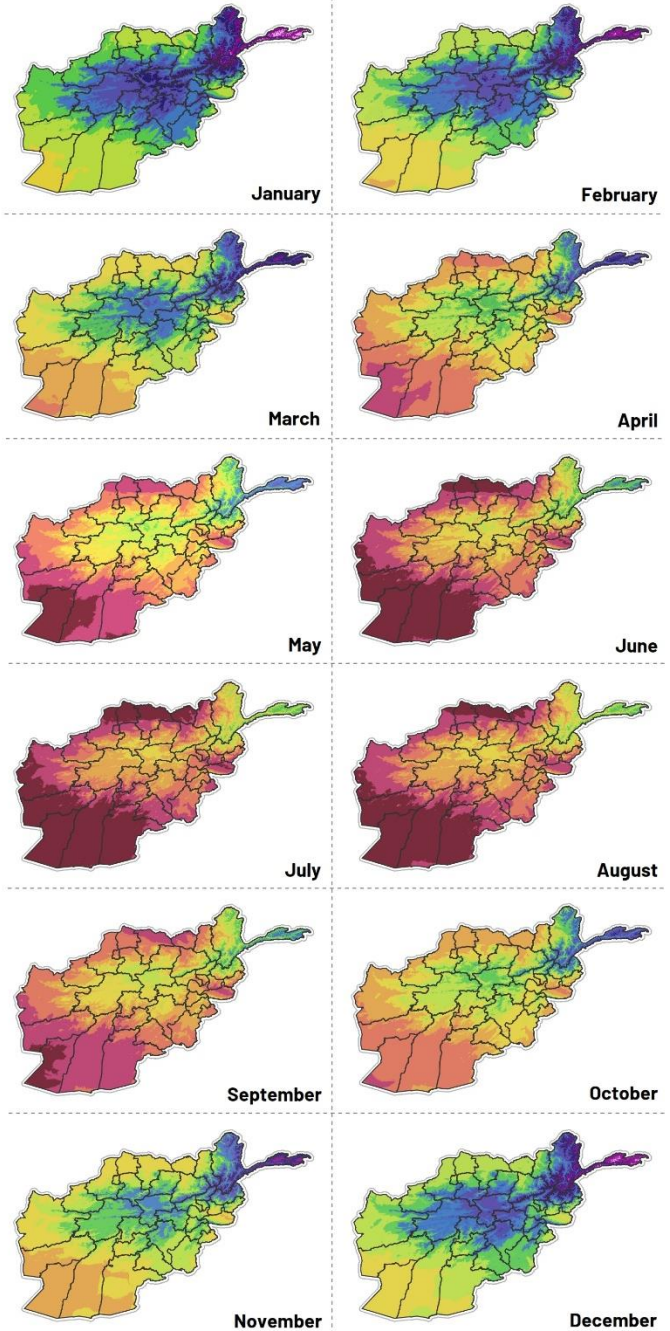


Annual and Monthly Mean Temperatures in Afghanistan

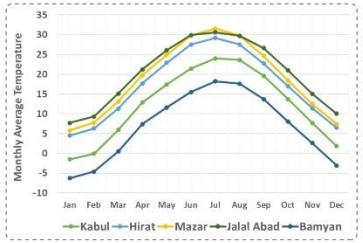
This map shows the annual mean temperatures and the monthly mean of daily mean temperatures in Afghanistan. The data originates from the CHELSA high resolution (30 arc sec/1km) climate data set for earth land surface areas (Swiss Federal Institute for Forest, Snow and Landscape Research WSL). The data is based on, a statistical downscaling of the ERA interim global circulation model (from ECMWF), with a GPCC bias correction, for data collected between the time period of 1979-2013.



Temperature Average per Month (C°)



Major Cities Monthly Average Temperature



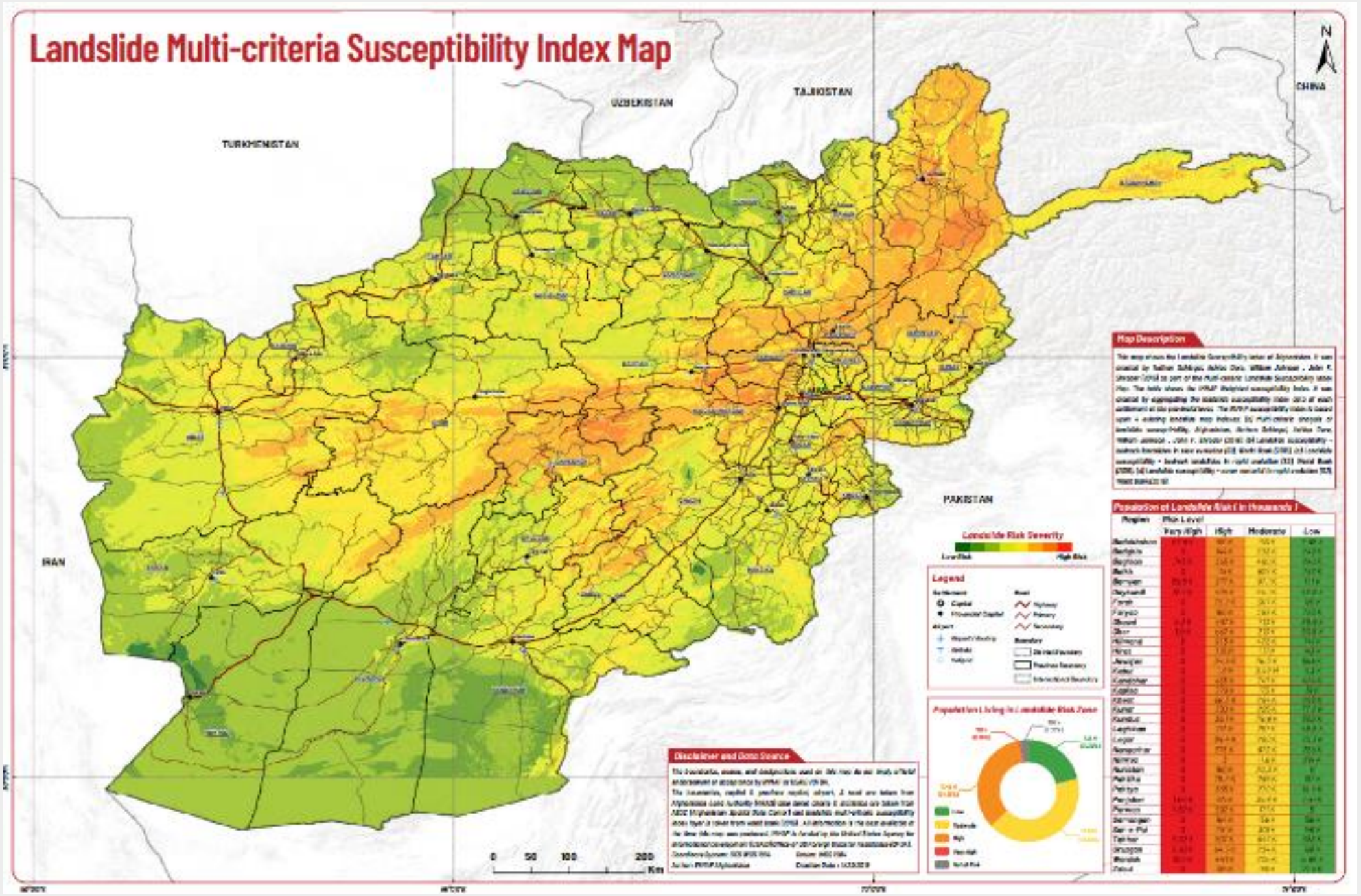
Major Cities Annual Average Temperature

Province Code	Province Name	Provincial Center	Annual Temperature	Average Temperature per Month (C°)											
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Kabul	Kabul	12.2	-2	-0	5.9	13	17	21	24	24	20	14	7.7	1.8
2	Kapisa	Mahmud-e- Ra	13.4	0.3	1.7	7.5	14	18	22	25	24	21	15	9	3.3
3	Parwan	Charikar	12.6	-0	1	6.7	14	18	21	24	24	20	14	8.3	2.7
4	Wardak	Maydanshahr	9.9	-4	-3	3.4	10	15	19	22	21	17	11	5.5	-1
5	Logar	Pul-e- Alam	12.1	-2	-1	5.7	13	18	22	24	23	20	14	7.5	1.5
6	Nangarhar	Jalalabad	20.2	7.7	9.3	15	21	26	30	31	30	27	21	15	10
7	Laghman	Mehtarlam	18.6	5.6	7.1	13	19	24	28	30	29	25	20	14	8.2
8	Panjsher	Bazarak	9.9	-3	-1	4.2	11	15	18	21	21	17	11	5.4	0.2
9	Baghlan	Pul-e- khumri	16.7	4.7	6.1	12	18	22	25	28	27	23	17	12	7
10	Bamyan	Bamyan	6.8	-6	-5	0.5	7.4	12	16	18	18	14	8	2.6	-3
11	Ghazni	Ghazni	11.0	-3	-2	4.3	11	17	21	23	23	19	13	6.2	0.3
12	Paktya	Gardez	10.4	-3	-2	4.4	11	16	20	22	21	17	12	5.5	0.1
13	Kunar	Asadabad	17.8	6.3	8.1	13	19	23	27	28	27	24	18	13	8.2
14	Nuristan	Porun	5.4	-6	-5	0	5.2	9.6	14	17	16	12	5.6	0.1	-4
15	Badakhsha	Fayzabad	11.6	-1	1.2	5.9	12	16	21	23	23	19	12	6.3	0.9
16	Takhar	Taloqan	15.7	3.2	4.7	10	17	21	25	27	27	22	16	10	5.1
17	Kunduz	Kunduz	18.5	5.6	7.3	13	19	24	29	31	30	25	19	13	7.5
18	Balkh	Mazar-e-Shari	18.8	5.8	7.8	13	20	25	30	32	30	25	18	13	7.4
19	Samangan	Aybak	14.9	2.8	4.3	9.5	16	20	24	27	26	21	15	9.4	4.6
20	Sar-e-Pul	Sar-e-Pul	16.5	4.6	6.4	11	18	22	26	28	26	22	16	11	6.3
21	Ghor	Chaghcharan	7.9	-4	-3	2.4	8.3	12	17	19	18	14	8.9	3.8	-1
22	Daykundi	Nili	11.4	-3	-1	4.8	12	16	21	24	23	19	13	6.6	0.8
23	Uruzgan	Tirinkot	18.4	4	6.2	12	19	25	29	32	31	26	19	13	6.8
24	Zabul	Qalat	17.3	3.1	5.2	11	18	24	28	31	29	25	18	12	5.9
25	Paktika	Sharan	11.9	-2	-0	5.7	12	18	22	24	23	19	13	7	1.4
26	Khost	Khost(Matun)	17.3	4.8	6.7	13	19	24	27	27	26	23	18	12	7.2
27	Jawzjan	Shiberghan	18.4	5.5	7.5	13	20	25	30	31	29	24	18	12	7
28	Faryab	Maymana	15.0	3.3	5	9.8	16	20	25	26	25	20	15	9.7	5.1
29	Badghis	Qala-e-Naw	15.7	3.9	5.6	10	16	21	26	27	26	21	16	11	5.9
30	Hirat	Herat	17.0	4.5	6.3	11	18	23	28	29	28	23	17	11	6.5
31	Farah	Farah	22.7	8.4	11	17	24	30	34	36	34	29	23	16	10
32	Hilmand	Lashkargah	22.9	8.5	11	17	24	30	35	36	34	29	23	16	11
33	Kandahar	Kandahar	21.5	7.4	9.8	15	22	29	33	35	33	28	22	15	9.6
34	Nimroz	Zaranj	24.6	11	14	20	27	32	36	37	36	30	24	18	12

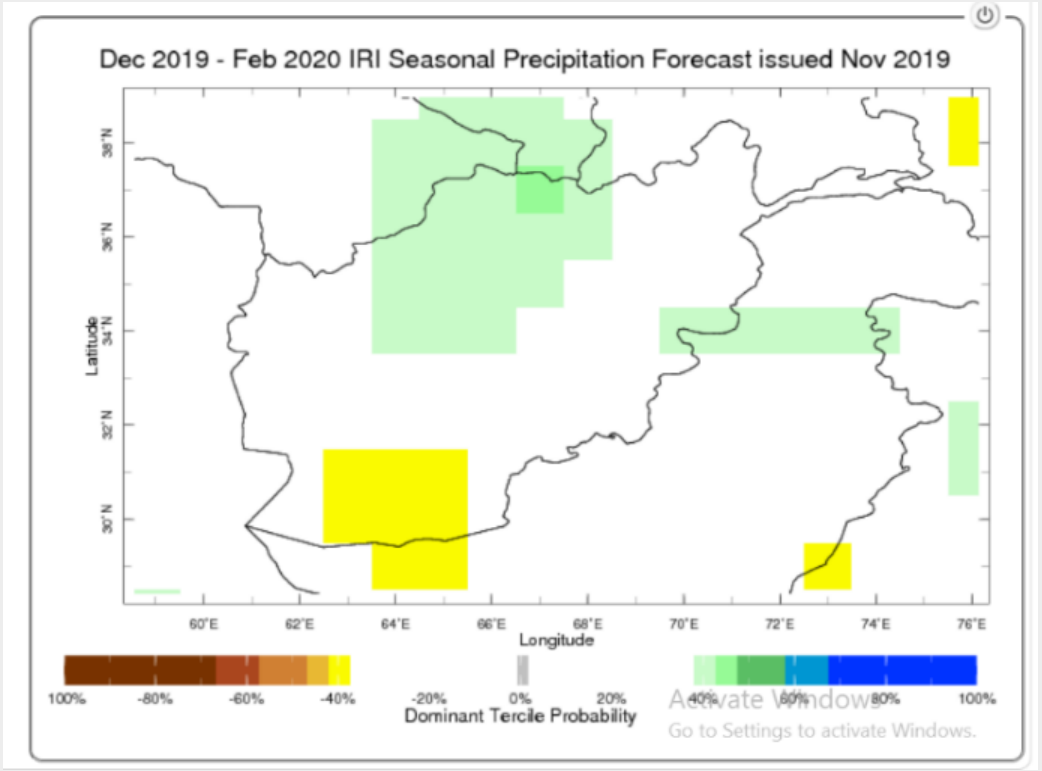
Datum/projection: WGS84/Geographic
Data Sources: CHELSA, AGCHO
Date Created: July 9, 2020

Feedback: afghanistan@immap.org

Landslide Multi-Criteria Susceptibility



Key Activities in terms of Preparedness



Weather Forecasting (Daily, Weekly and Seasonally)

-Afghanistan Meteorological Department

- IMD, GFS, NOAA, IRI, UK Met Office, WMO and etc..

Compilation and Publication of Afghanistan Hazards Atlas

Early Warning Sources

RIMES and NCMRWF

IMD

IRI

UK Met Office

NOAA

Fews Net

USGS

WMO Lead Centers.

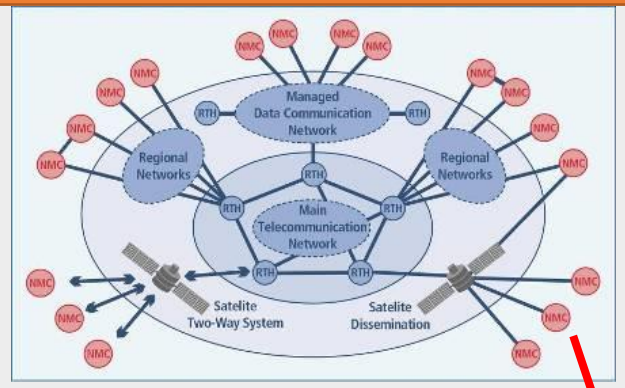
Korea Met (KMA)

CMA

MEW

MAIL

AMD



National Meteorological and Hydrological Services

Media

General public

Private sector

Government and civil defence authorities

World of Thanks

جهاني سپاس

نړی مننه