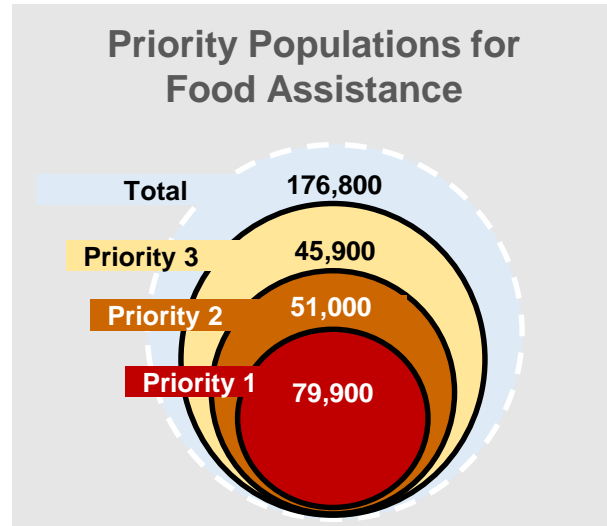


Priority	Palika	Households	Population	Children under 5	PLW
1	34	13,800	79,900	9,700	3,800
2	51	9,700	51,000	6,200	2,500
3	64	9,500	45,900	5,500	1,400
Total	149	33,000	176,800	21,400	7,700



Heavy rainfall on 11-12 July caused landslides and flooding in 32 Districts across Nepal. Flooding was most severe in 11 Terai districts of Provinces 1 and 2. Extensive damages to assets, housing, water and sanitation infrastructure, food stocks, crop and livestock all have a significant impact on food security in the region.

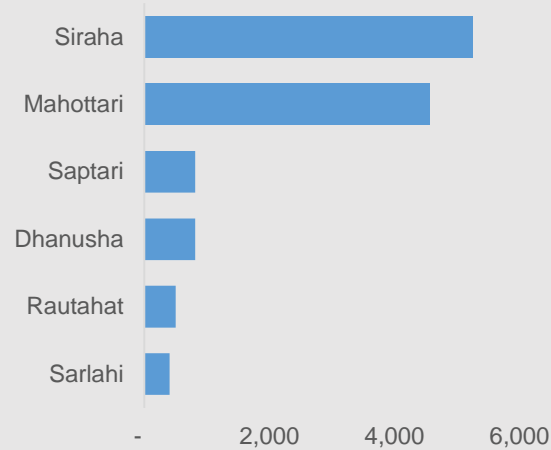
An estimated 176,800 people's food security is currently significantly affected as a result of the flooding, of which 79,900 people, or 13,800 households, are deemed to be the most in need of assistance.



Overview

Shelter and Displacement

Displaced Families



Immediately after the flood, many of the affected households initially took shelter on higher ground in schools, tents, community and public buildings. Above 20,000 families were first estimated displaced.

At least 12,000 households are estimated displaced in six Districts as of 29 July, a majority of whom are in Siraha (5,300) and Mahottari (4,600) Districts. The number of displaced has decreased as water recedes and households who are able move back.

However many homes are still partially damaged or destroyed. Consultations within the most affected communities in each District suggest that close to half of all homes in affected areas of Rautahat, Siraha and Mahottari are either severely damaged or destroyed. An estimated one quarter of all houses in Sarlahi and Sunsari Districts' most affected communities were severely damaged or destroyed.

Accessibility and Markets

Road connectivity has greatly improved as receding waters and early road repairs increased physical access. Most municipalities are now either fully or partially accessible by vehicle. The East-West Highway still has connectivity problems, though smaller link roads are more accessible.

However, physical access in Udayapur District has deteriorated since the flooding, with damaged roads cutting off several communities in four municipalities, also crippling market functionality notably in Limchunbung and Tapli municipalities.

Eight Districts still have pockets of only partially functioning markets, in which supply constraints are still affecting the amount and type of food commodities available.

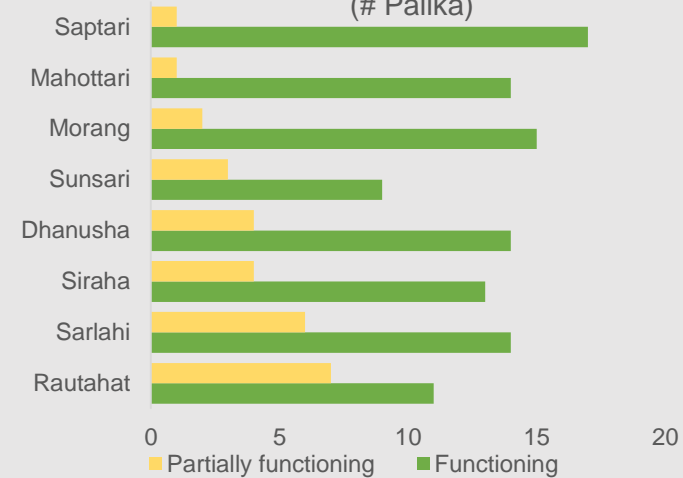
Food commodity price changes were noted during field verification. Overall, staple commodity prices including rice and lentils increased by up to 20%, while prices of vegetables saw increases of up to 50% (in Saptari and Siraha Districts) and by more than 100% (in Parsa and Bara Districts).

Post-flooding District-level food prices

	Rice-coarse	Rice-medium	Wheat flour	Broken lentil	Potato	Soybean oil
Parsa	45	66	50	110	40	170
Bara	48	70	50	110	40	170
Rautahat	50	70	50	120	45	160
Sarlahi	48	70	50	110	40	160
Mahottari	42	60	60	120	50	140
Dhanusha	42	60	55	110	40	140
Siraha	40	65	60	110	50	130
Saptari	40	60	60	110	50	140
Unit	Kg	Kg	Kg	Kg	Kg	Litre

Market Functionality

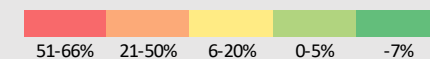
(# Palika)



Within those municipalities most affected by the flooding and which recorded large food stock losses, the prices of lentils and soybean oil in particular were 10-40% higher than the rest of the district.

Market functionality is expected to keep improving in the coming days, with commodity prices regaining normal levels. Humanitarian assistance may also temporarily increase market demand in affected areas.

Data (left) are shown for primary markets in each District. Colors represent the percentage change in price compared to pre-flood prices, as of 18-24 July.

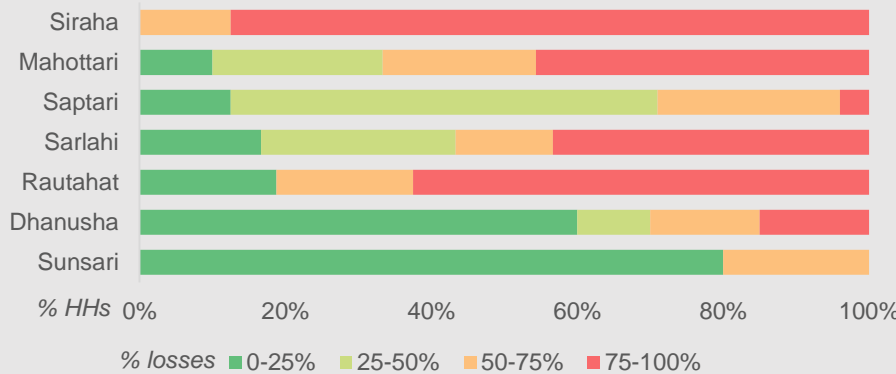


Source: DDRC, NRCS, NeKSAP

Overview

Food Security

Household food stock losses in most affected communities (% of households)



Food stock and food assistance

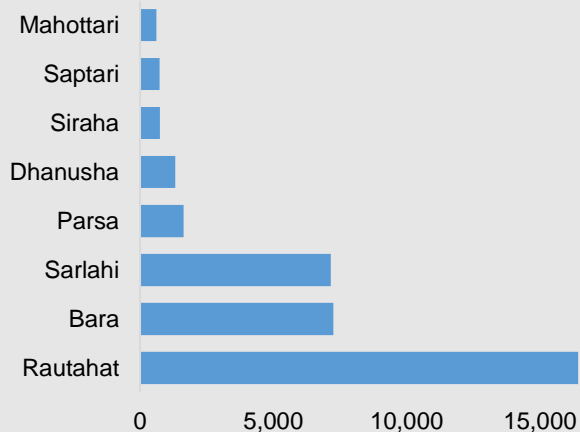
Many households in flooded areas have lost food stock from the winter harvest (wheat), together with stored commodities such as rice, pulses and vegetables. Within the most affected communities of each District, losses were largest in Siraha, Rautahat, Sarlahi and Mahottari, with

between 40-80% of households having lost upwards of 75% of their food stock. Many people in the flood affected areas are now depending on relief food distributed by the government and I/NGOs, for the most part consisting of dry food goods.

Summer rice cultivation

July is in the lean season and also a peak period for the plantation of rice in the Terai. Rice plan-

Rice losses (Ha.)



-tation in the Terai accounts for 70% of the country, and is normally harvested in October/November. At the time of the flooding, the Ministry of Agriculture and Livestock Development estimates that 35% of rice plantation was completed in the Terai (July 16 report).

It is estimated that the flood damaged 50% of planted rice. Agricultural Knowledge Centres (AKC) in affected areas have estimated that rice crop losses alone cover almost 36,000 hectares in these districts. The largest estimated rice crop losses are concentrated in Rautahat (16,400 Ha.) Bara (7,300 Ha.) and Sarlahi (7,200 Ha.) Districts.

Resilience Profile

Most of the districts in Terai rate relatively low as measured by the Human Development Index (HDI): Rautahat, Mahottari, Saptari, Sarlahi, Siraha and Dhanusa are among the 25 districts in Nepal with the lowest HDI rating.

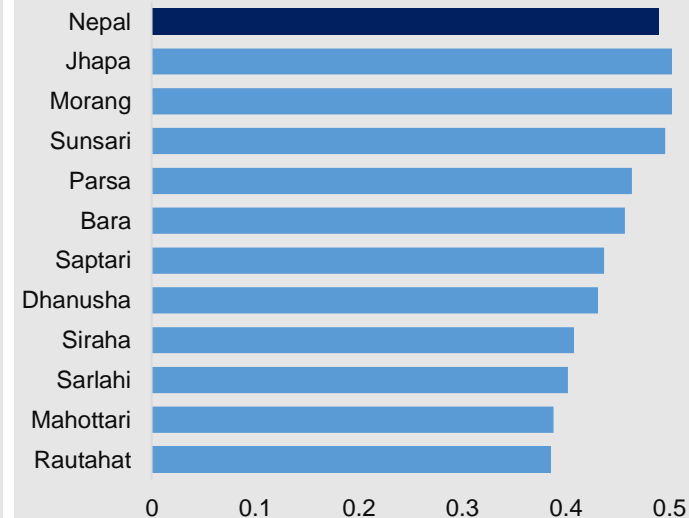
Population living in poverty

More than 20 percent of the population in Mahottari, Bara, Parsa, Rautahat, and Sarlahi live below the poverty line. The poorest are hardest hit by the flood.

Housing conditions are poor

60-70 percent of households in Jhapa, Morang, Sunsari, Siraha, Saptari, Dhanusa, Mahottari, Sarlahi, and Rautahat; 50-60 percent in Bara and Parsa; live in poor housing structures unable to withstand flooding.

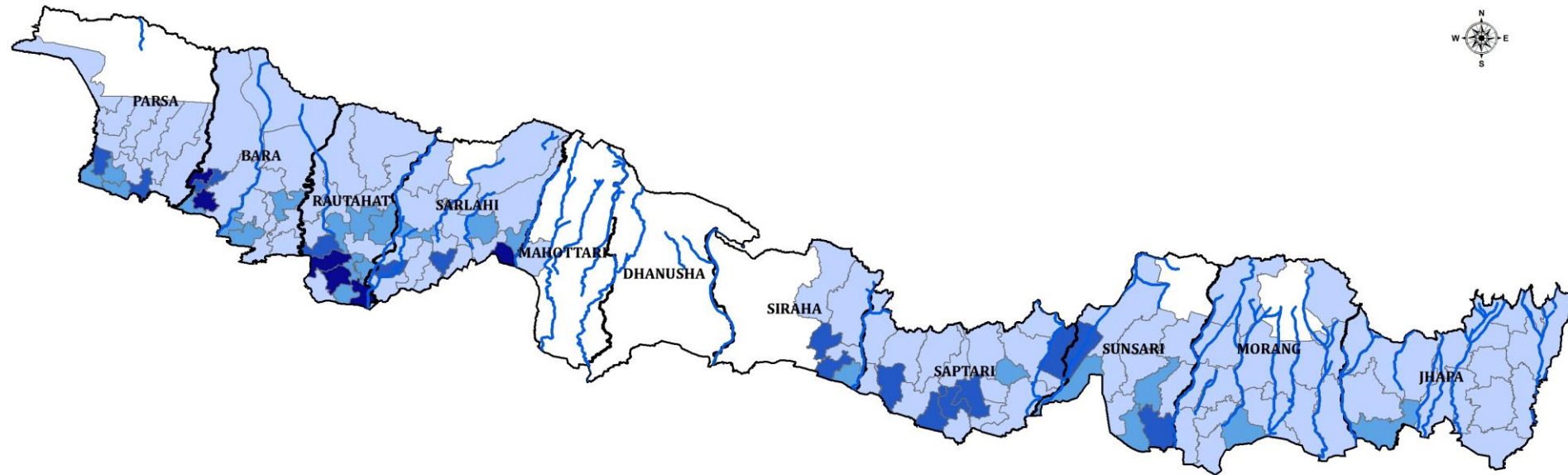
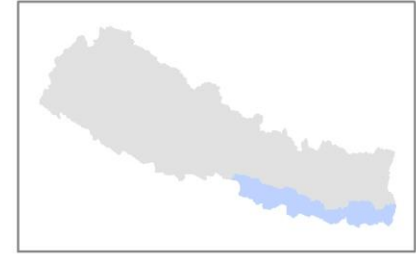
Human Development Index



Inundation area (12-13 July)

Flood Inundation Area in Terai Districts

(12 - 13 July 2019)



Legend

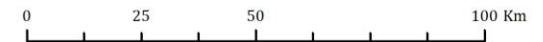
— Major rivers

Inundation

Higher

Lower

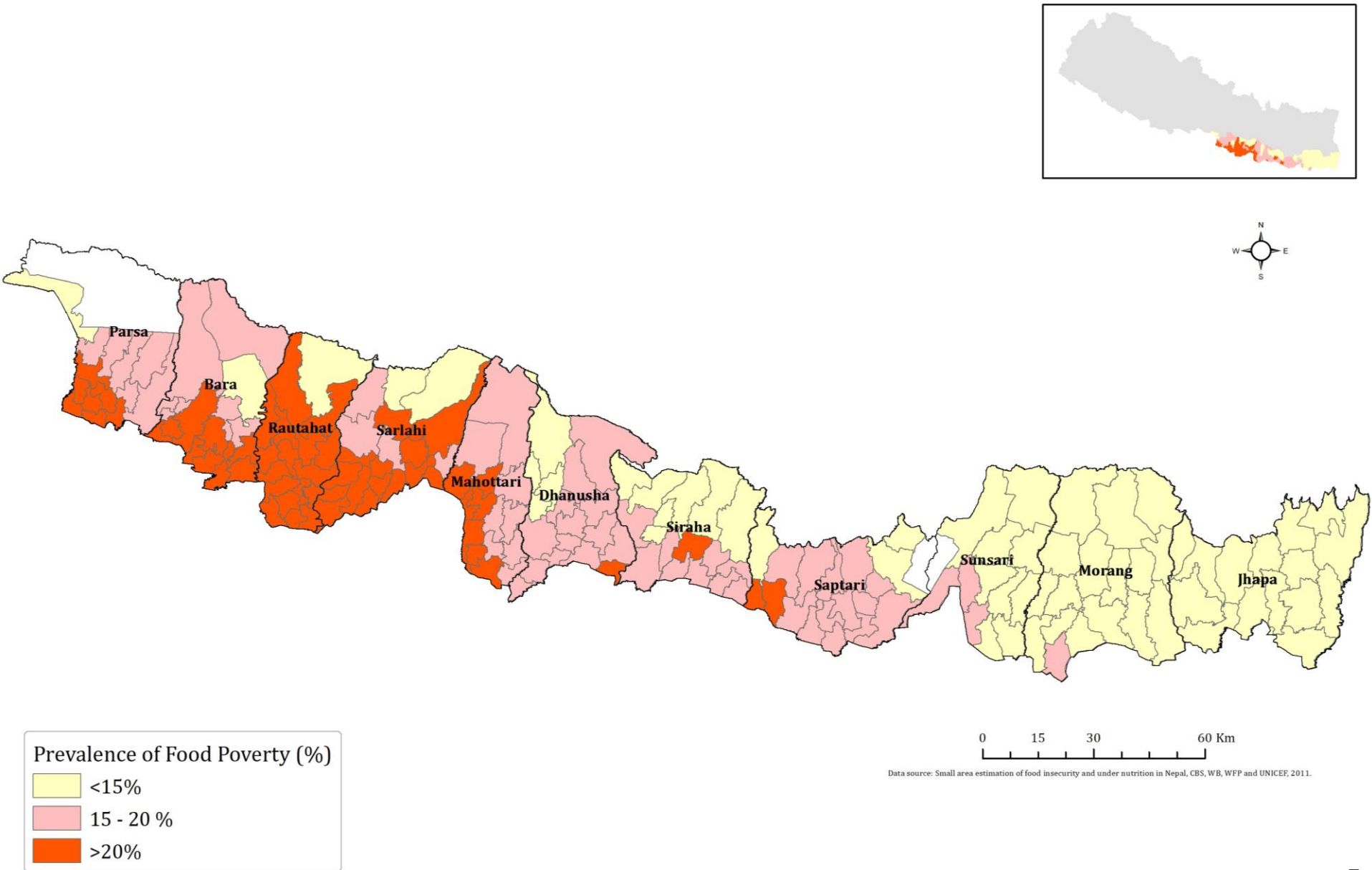
NA



Data Sources: EPI/VAM, WFP Nepal, Sentinel-1 image
12 & 13 July 2019, ICIMOD 2010, DoS 2017

Food poverty prevalence

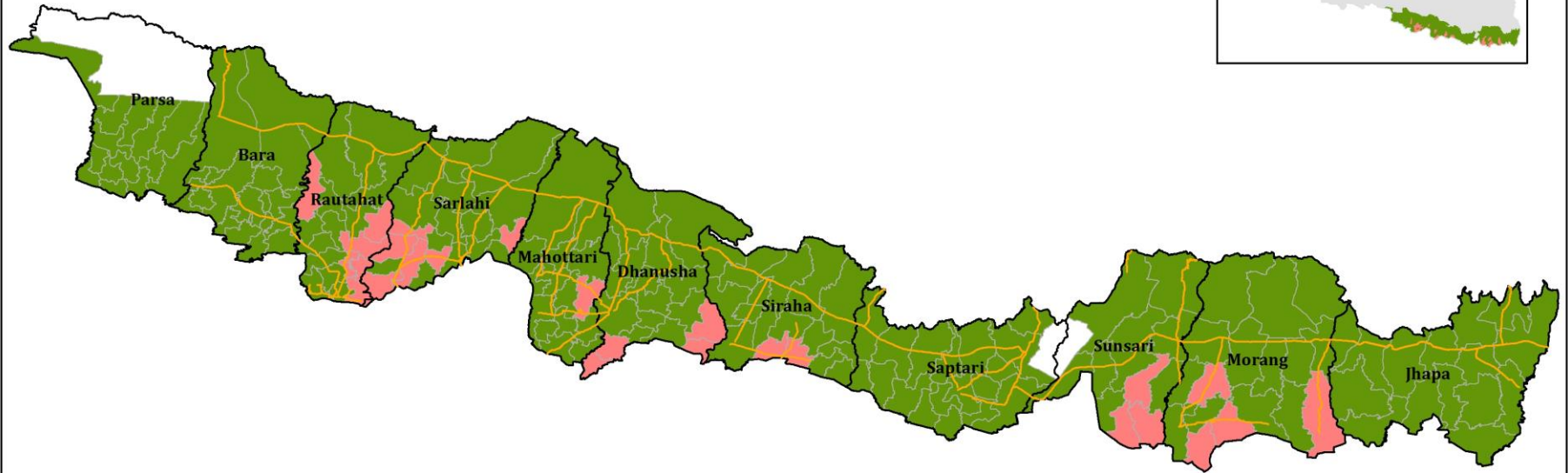
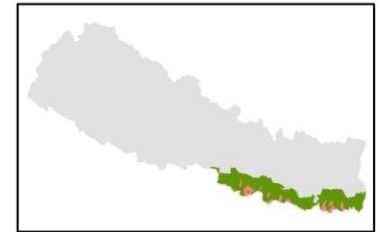
Prevalence of Food Poverty in Flood Affected Districts of Terai



Road connectivity (29 July)

Inaccessible Palikas in Flood Affected Terai Districts

(As of 29 July 2019)



Accessibility status

- Accessible
- Partially accessible
- Not accessible
- Not applicable
- Highway

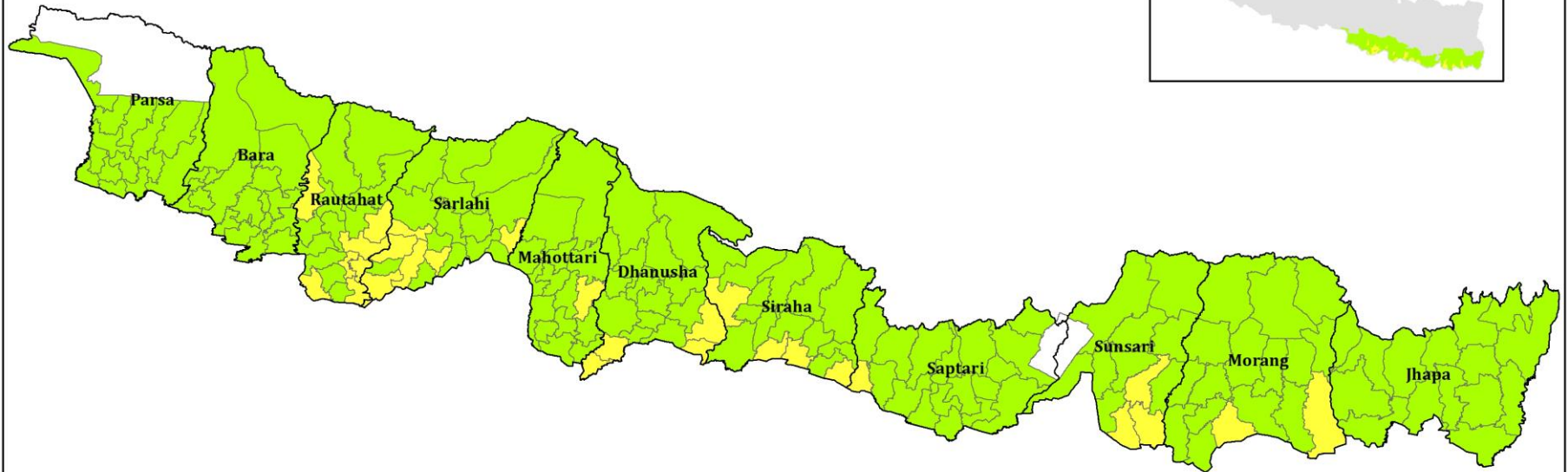
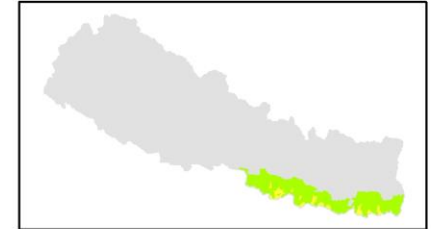


Data sources: DDMC, DAO, LG, AKC, Livestock Office (GoN); WFP Nepal, NeKSAP Field Staff, NRCS, Local NGOs, Traders

Market functionality (29 July)

Market Functionality in Flood Affected Terai Districts

(As of 29 July 2019)



Market functionality

- Functioning
- Partially functioning
- Not functioning
- Not applicable

0 210 420 840 Km

Data sources: DDMC, DAO, LG, AKC, Livestock Office (GoN); WFP Nepal, NeKSAP Field Staff, NRCS, Local NGOs, Traders

Methodology

WFP's 72-hour Approach

Initial estimations of area inundated were calculated by processing Sentinel-1 satellite images of 12-13 July. The inundation surface layer was then overlaid with settlement data to estimate the affected population. Priority population estimates were derived by overlaying the affected populations with small area estimates of food poverty at Municipality level (derived from the Small Area Estimation of Food Insecurity and Under-nutrition study, 2011), as well as with information from the Central Bureau of Statistics on types of building and building materials by municipality. Children under 5 years of age and pregnant and lactating women (PLW) were identified among the targeted population.

The identification and ranking by areas and population of prioritization is based on cutoffs used, namely—above 20% prevalence of food poverty, above 70% of building materials classified as poor, to identify the highest priority population.

From these initial population estimates WFP undertook extensive ground verification and consultations with local government, District Disaster Management Committees, I/NGOs and the Nepal Red Cross Society, to produce revised and updated estimates of priority populations.

Focus group discussions were conducted across the most affected communities, defined as those areas generally within Priority 1 municipalities, identified by assessment teams in consultation with local authorities as having sustained the most damage to food stores and housing, the highest displacement, the lowest market functionality and in general with residents in most need of assistance.

More on WFP's 72-hour rapid assessment approach can be found at:

<https://www.wfp.org/72-hours-emergency-assessment>

Acknowledgement

Funding from the UK government has remained critical for supporting the capacity of the Nepal Food Security Monitoring system (NeKSAP), which was mobilized to produce this 72-hour assessment. NeKSAP is operated by the Ministry of Agriculture and Livestock Development (MoALD) with the strategic guidance of the National Planning Commission (NPC). WFP provides technical assistance.

Situation updates received from the Nepal Red Cross Society (NRCS) were used to supplement this report, namely through estimates of population displacement, casualties and asset losses/damages.

Satellite images received from Sentinel-1 SAR (European Space Agency) were used to map the inundation surface in the flood-affected Terai districts.



नेपाल खाद्य सुरक्षा अनुगमन प्रणाली
Nepal Khadhyo Surakshya Anugaman Pranali (NeKSAP)
Nepal Food Security Monitoring System

ANNEX

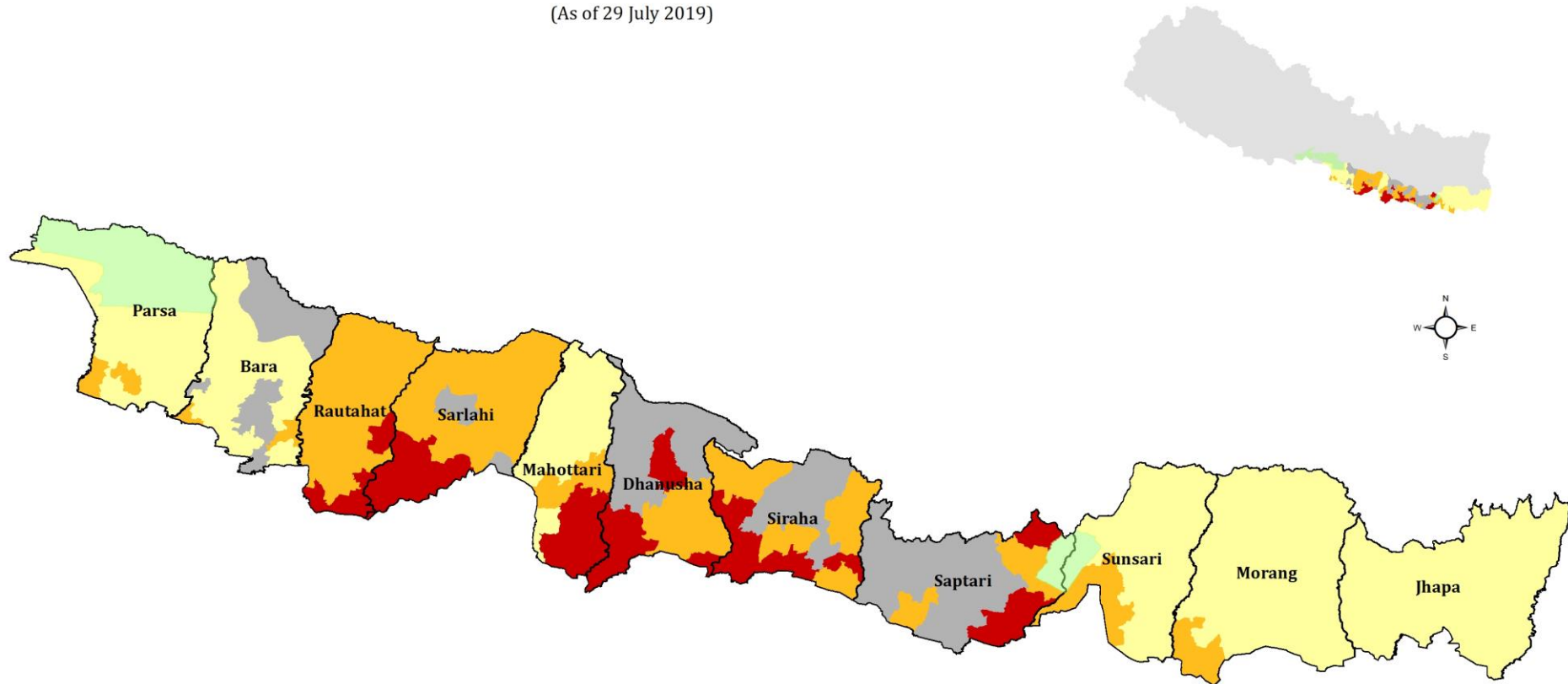
ANNEX 1 Priority Population

District	Priority 1					Priority 2					Priority 3					Total		
	Palika	Population	HHs	Children <5yrs	PLW	Palika	Population	HHs	Children <5yrs	PLW	Palika	Population	HHs	Children <5yrs	PLW	Palika	Population	HHs
Siraha	5	25,746	4,291	3,136	1,273	7	7,146	1,191	870	352	-	-	-	-	-	12	32,892	5,482
Mahottari	7	18,354	3,059	2,235	890	3	6,708	1,118	816	325	5	2,364	394	289	115	15	27,426	4,571
Sarlahi	8	10,722	1,950	1,307	501	10	1,341	243	162	62	-	-	-	-	-	18	12,063	2,193
Rautahat	5	10,121	2,023	1,233	465	13	6,451	1,287	786	296	-	-	-	-	-	18	16,572	3,310
Dhanusha	6	9,246	1,541	1,127	440	6	6,486	1,081	790	309	-	-	-	-	-	12	15,732	2,622
Saptari	3	5,730	955	697	278	2	432	72	53	21	-	-	-	-	-	5	6,162	1,027
Bara	-	-	-	-	-	2	1,635	233	199	76	9	2,340	333	286	108	11	3,975	566
Jhapa	-	-	-	-	-	-	-	-	-	-	15	3,874	884	469	196	15	3,874	884
Morang	-	-	-	-	-	2	5,084	1,133	619	250	15	5,501	1,227	670	271	17	10,585	2,360
Parsa	-	-	-	-	-	3	1,147	164	140	52	11	3,203	458	391	144	14	4,350	622
Sunsari	-	-	-	-	-	3	14,616	3,150	1,780	715	9	28,571	6,156	3,478	1,399	12	43,187	9,306
Total	34	79,919	13,819	9,735	3,847	51	51,046	9,672	6,215	2,458	64	45,853	9,452	5,583	2,233	149	176,818	32,943

ANNEX 2 Priority areas (29 July)

Priority Area in Flood Affected Terai Districts

(As of 29 July 2019)



Legend

- Priority 1
- Priority 2
- Priority 3
- Least priority
- Protected areas

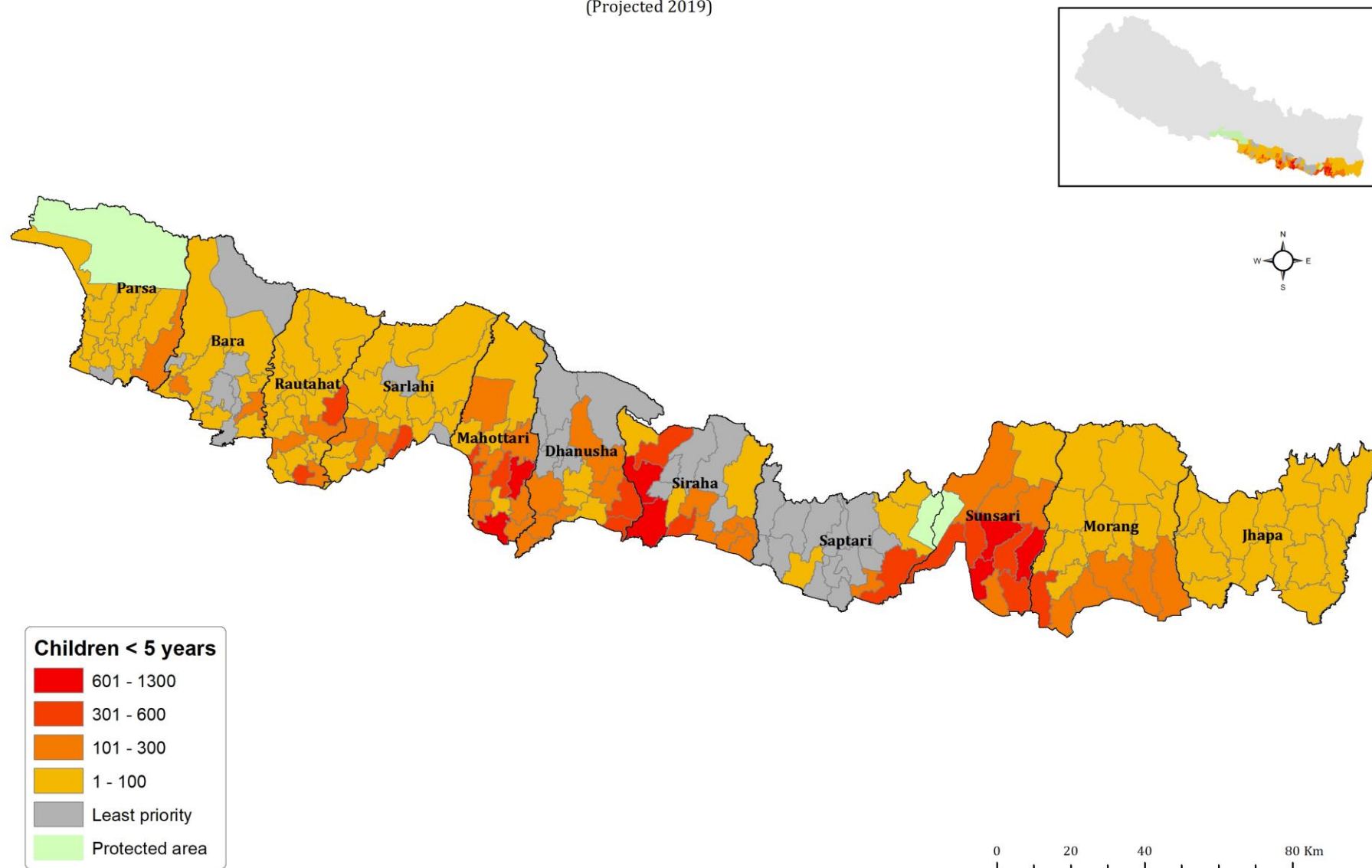
0 20 40 80 Km

Data sources: Sentinel - 1 satellite image 12 & 13 July 2019, WorldPop 2019, DoS 2017/JRA/DMCLG/WFP/MoALD Assessment

ANNEX 2 Children under 5 years in affected population

Children under 5 years of age within affected population

(Projected 2019)



Children < 5 years

- 601 - 1300
- 301 - 600
- 101 - 300
- 1 - 100
- Least priority
- Protected area

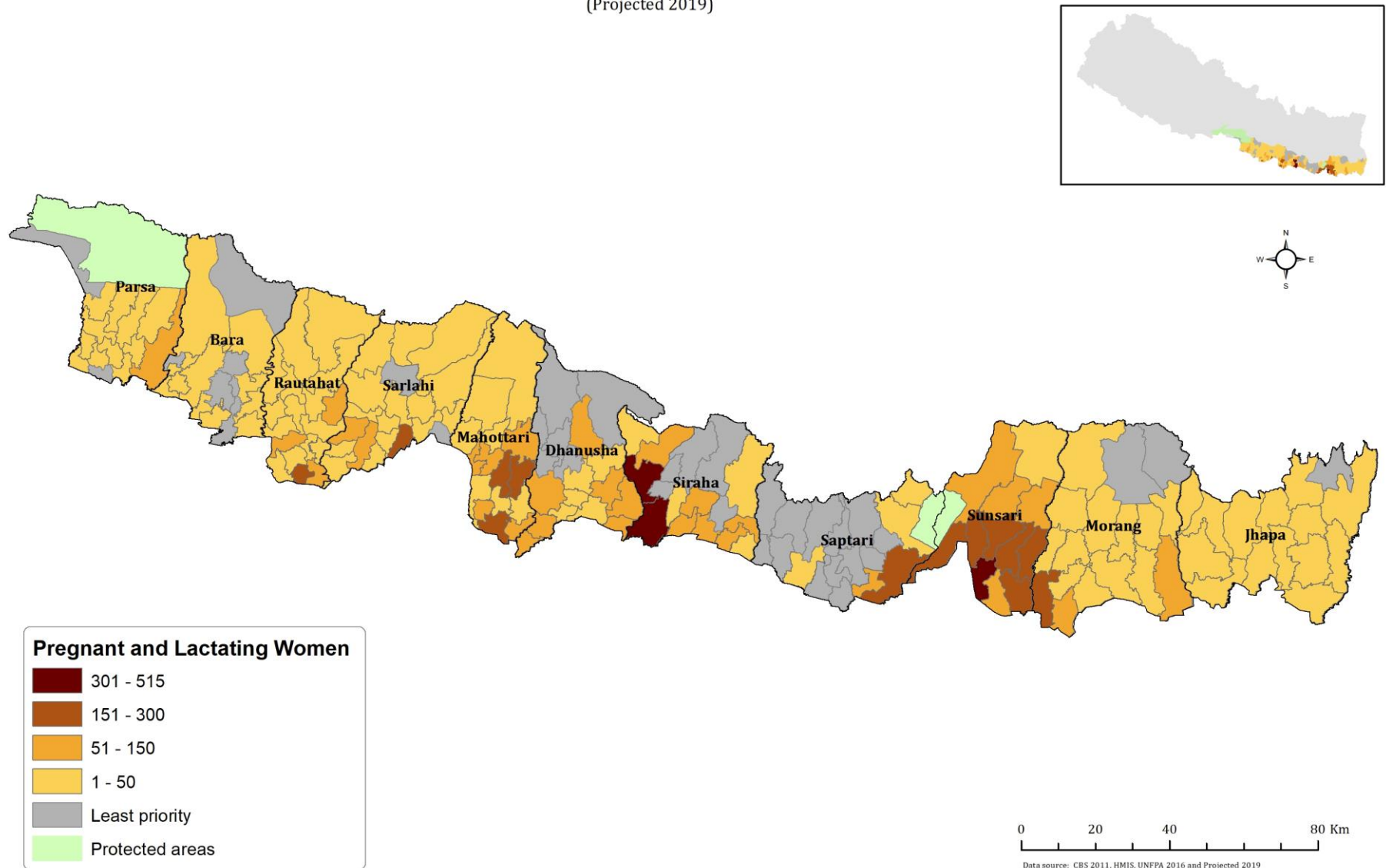
0 20 40 80 Km

Data source: CBS 2011 and Projected 2019

ANNEX 4 Pregnant and lactating women in affected population

Pregnant and lactating women within affected population

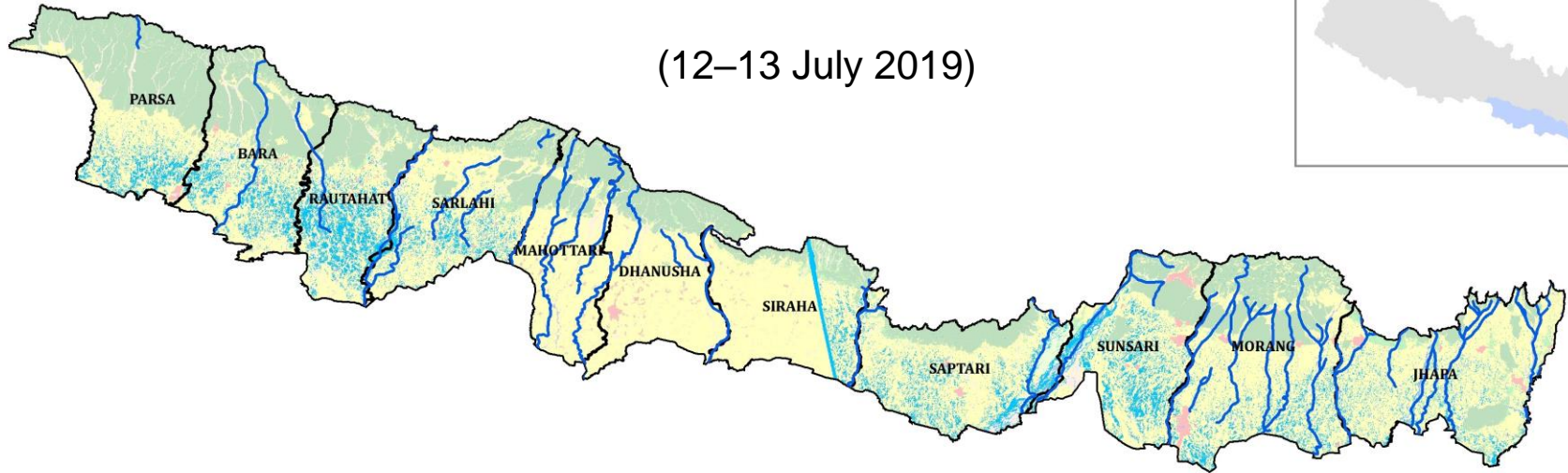
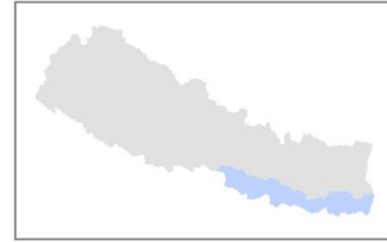
(Projected 2019)



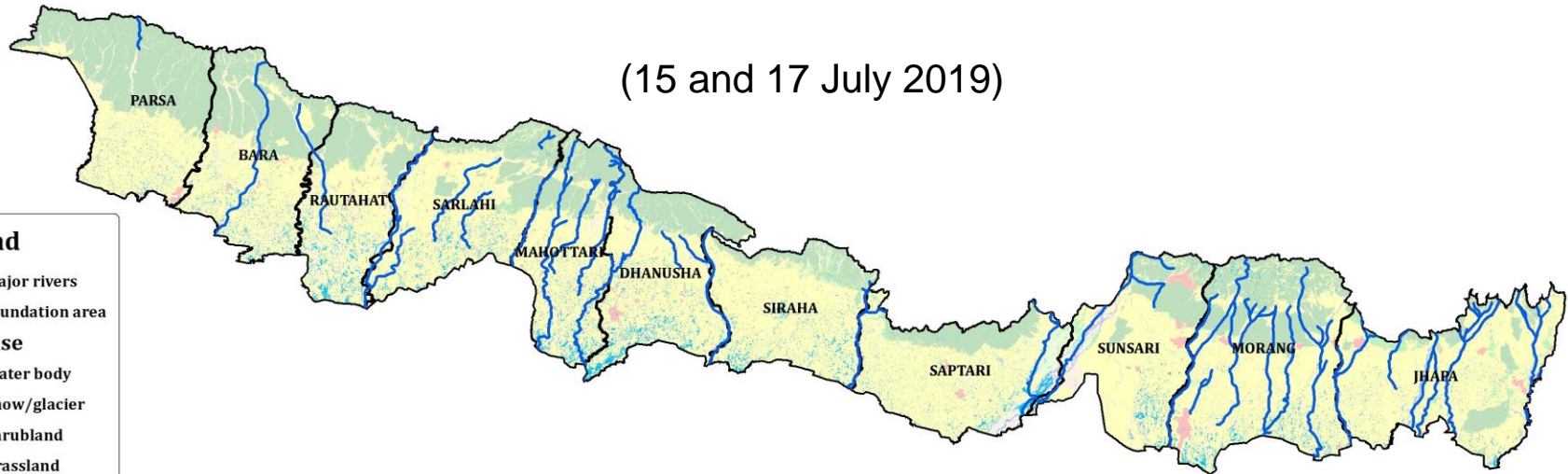
ANNEX 5 Inundation Area

Flood Inundation Area

(12–13 July 2019)



(15 and 17 July 2019)



Legend

- Major rivers
- Inundation area
- Land use
 - Water body
 - Snow/glacier
 - Shrubland
 - Grassland
 - Forest
 - Built-up area
 - Barren area
 - Agriculture area

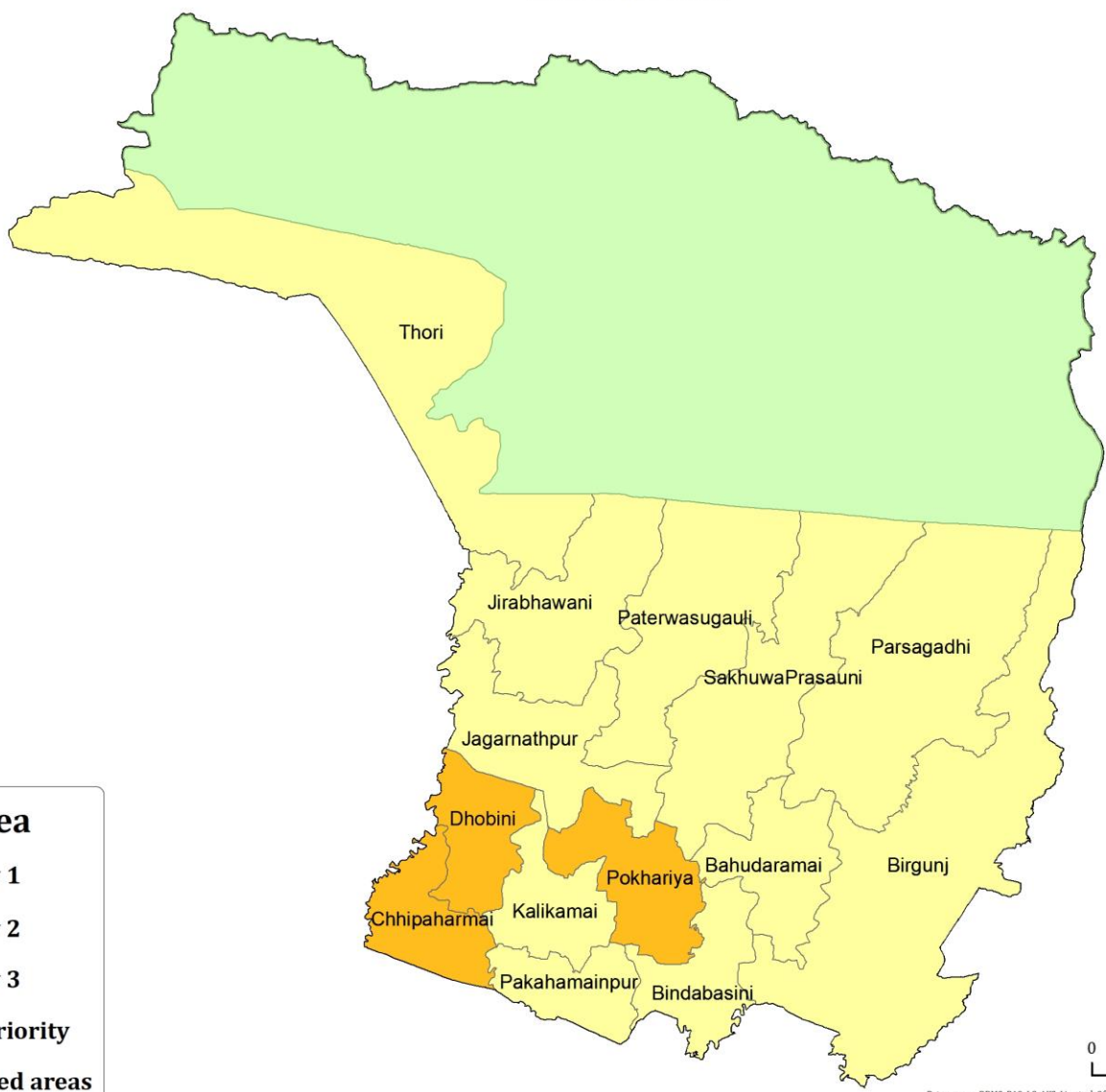
0 25 50 100 Km

Data Sources: EPI/VAM, WFP Nepal, Sentinel-1 image
15 & 17 July 2019, ICIMOD 2010, DoS 2017

ANNEX 6.a Parsa (29 July)

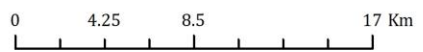
Priority Areas Based on Flood Affected Population and Prevalence of Food Poverty in Parsa District

(As of 29 July 2019)



Priority area

- Priority 1
- Priority 2
- Priority 3
- Least priority
- Protected areas

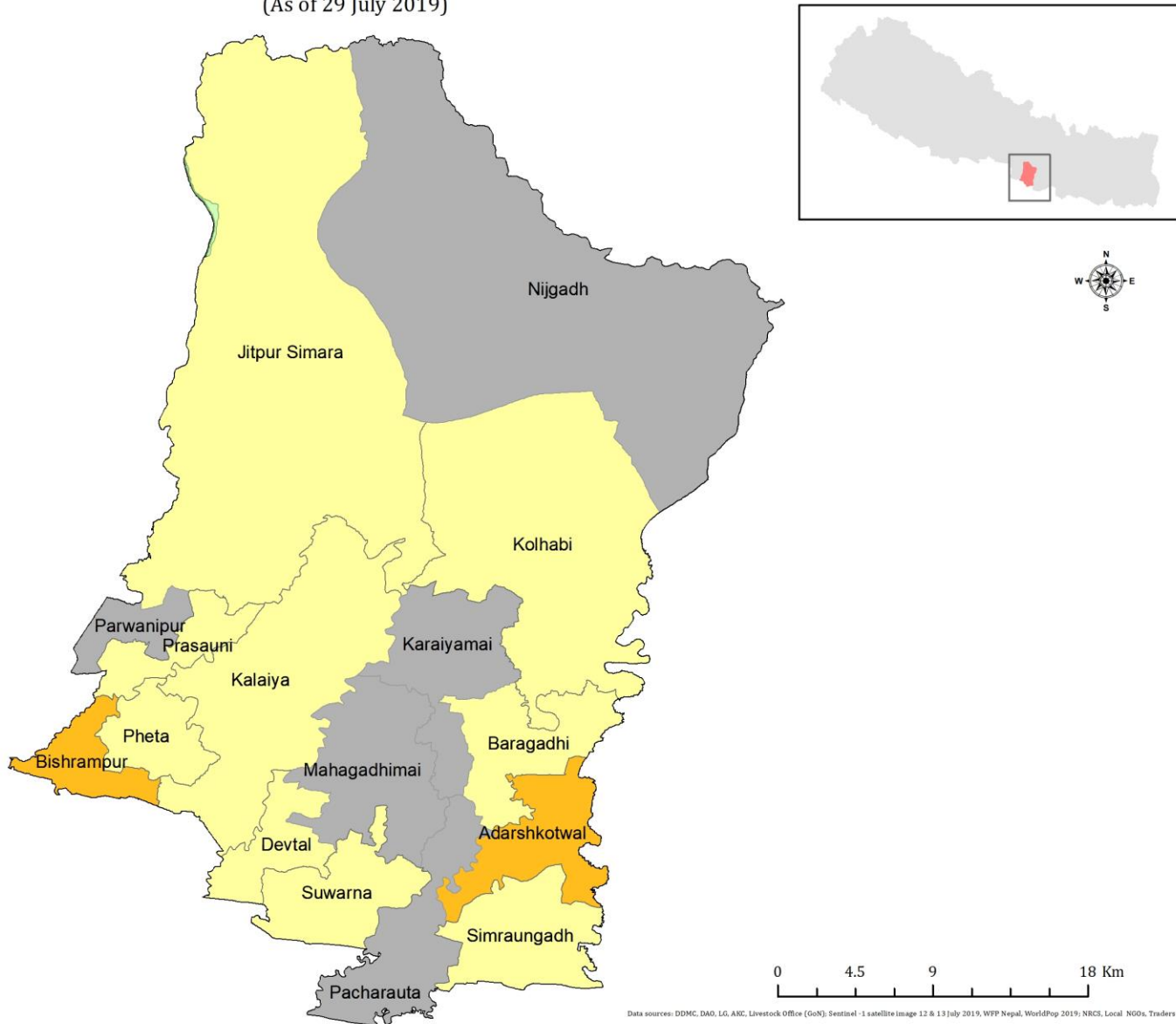


Data sources: DDNC, DAO, LG, ANC, Livestock Office (GoN); Sentinel-1 satellite image 12 & 13 July 2019, WFP Nepal, WorldPop 2019; NRCS, Local NGOs, Traders

ANNEX 6.b Bara (29 July)

Priority Areas Based on Flood Affected Population and Prevalence of Food Poverty in Bara District

(As of 29 July 2019)



Priority area

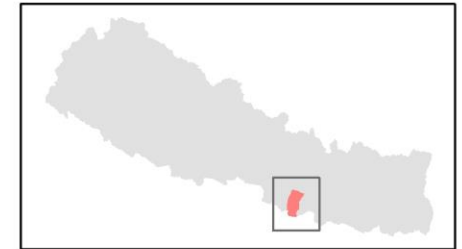
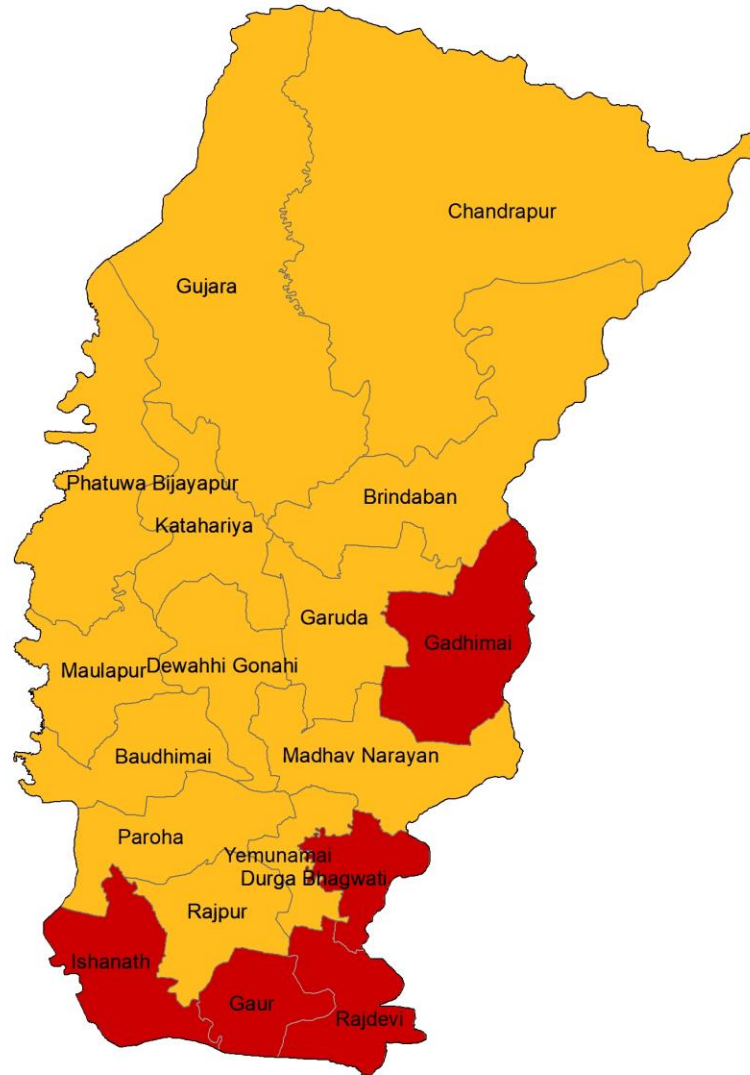
- Priority 1
- Priority 2
- Priority 3
- Least priority
- Protected areas

Data sources: DDNC, DAO, LG, ASC, Livestock Office (GoN); Sentinel-1 satellite image 12 & 13 July 2019, WFP Nepal, WorldPop 2019; NRCS, Local NGOs, Traders






ANNEX 6.c Rautahat (29 July)

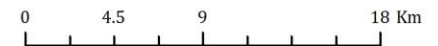
Priority Areas Based on Flood Affected Population and Prevalence of Food Poverty in Rautahat District

(As of 29 July 2019)



Priority area

-  Priority 1
-  Priority 2
-  Priority 3
-  Least priority
-  Protected areas

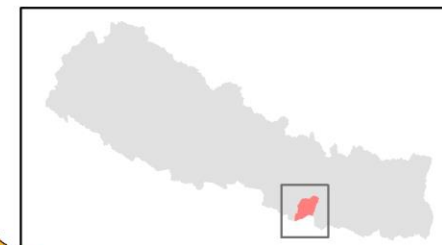


Data sources: DDNC, DAO, LG, ANC, Livestock Office (GoN), Sentinel-1 satellite image 12 & 13 July 2019, WFP Nepal, WorldPop 2019, NRCS, Local NGOs, Traders

ANNEX 6.d Sarlahi (29 July)

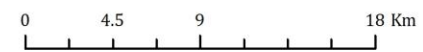
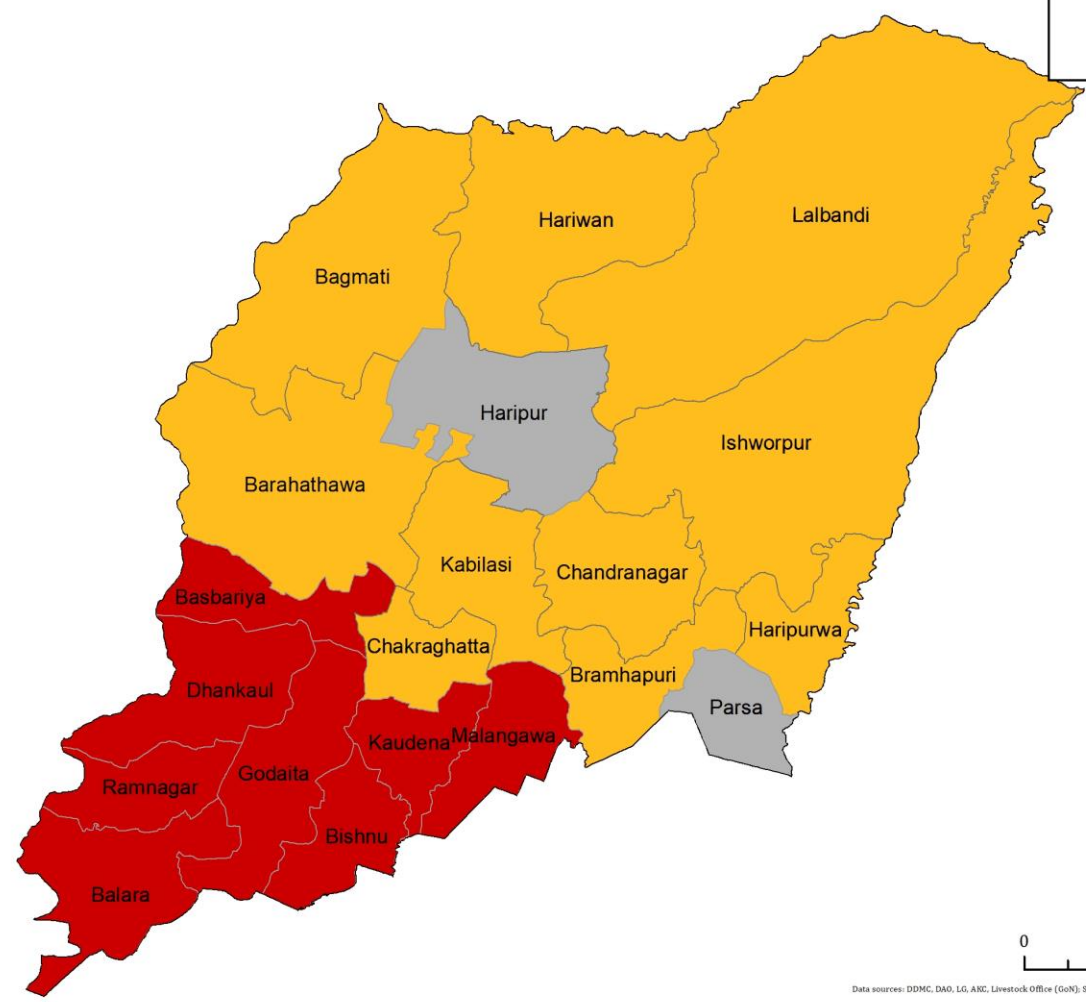
Priority Areas Based on Flood Affected Population and Prevalence of Food Poverty in Sarlahi District

(As of 29 July 2019)



Priority area

- Priority 1
- Priority 2
- Priority 3
- Least priority
- Protected areas

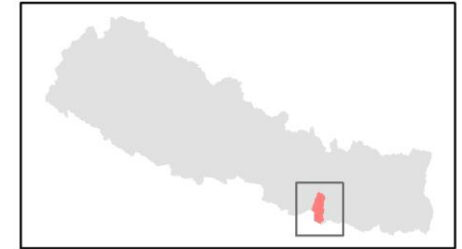
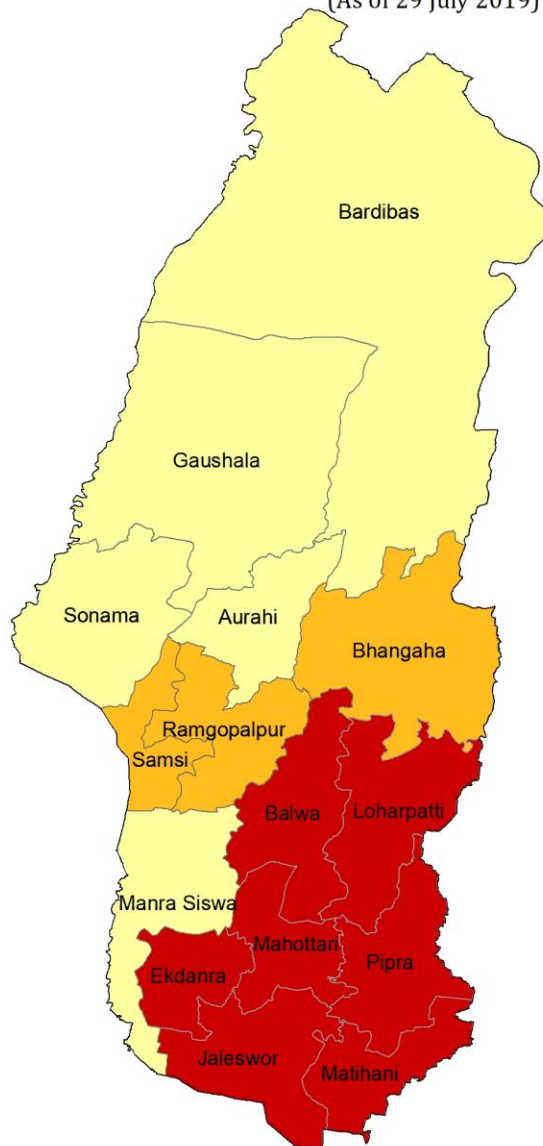


Data sources: DDNC, DAO, LG, ANC, Livestock Office (GoN), Sentinel-1 satellite image 12 & 13 July 2019, WFP Nepal, WorldPop 2019, NRCS, Local NGOs, Traders






ANNEX 6.e Mahottari (29 July)

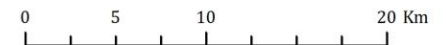
Priority Areas Based on Flood Affected Population and Prevalence of Food Poverty in Mahottari District

(As of 29 July 2019)



Priority area

-  Priority 1
-  Priority 2
-  Priority 3
-  Least priority
-  Protected areas

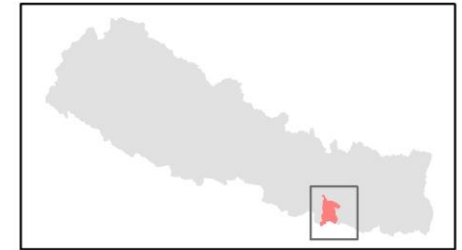
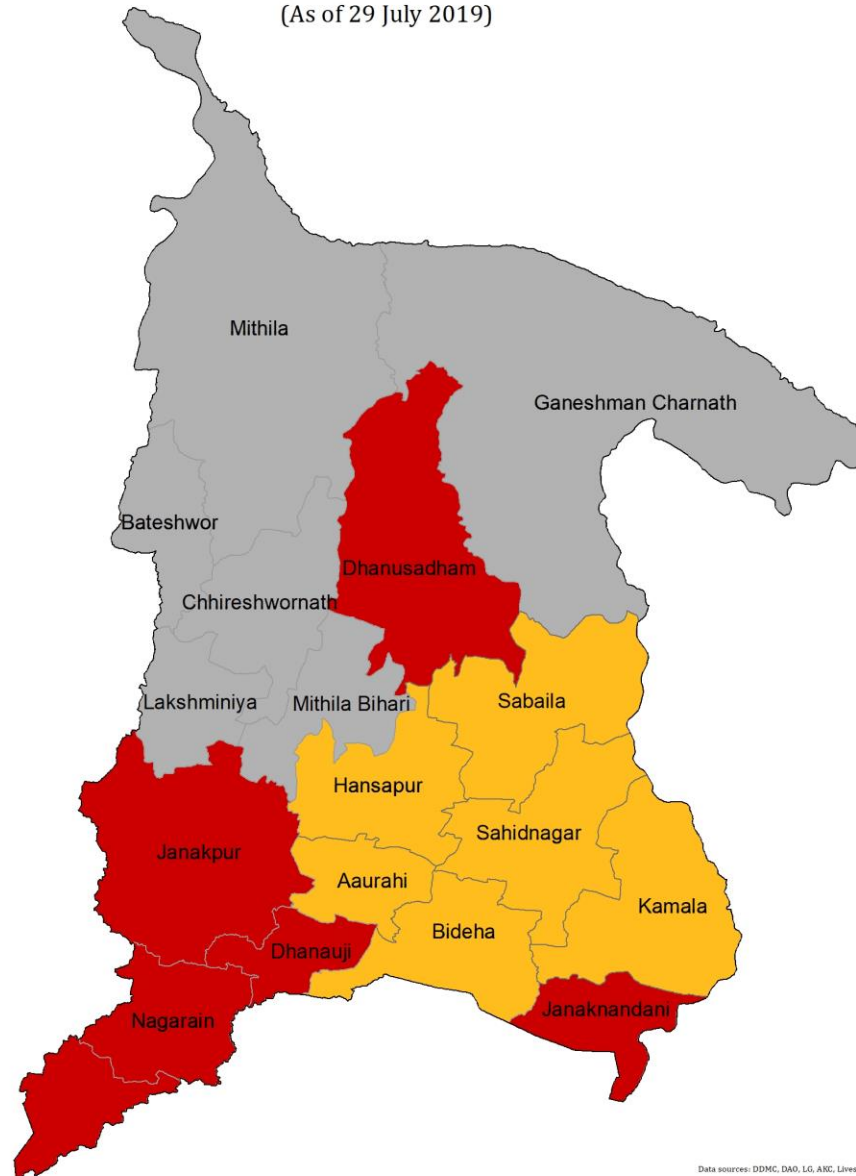


Data sources: DDNC, DAO, LG, ANC, Livestock Office (GoN), Sentinel-1 satellite image 12 & 13 July 2019, WFP Nepal, WorldPop 2019, NRCS, Local NGOs, Traders






ANNEX 6.f Dhanusha (29 July)

Priority Areas Based on Flood Affected Population and Prevalence of Food Poverty in Dhanusha District

(As of 29 July 2019)



Priority area

-  Priority 1
-  Priority 2
-  Priority 3
-  Least priority
-  Protected areas

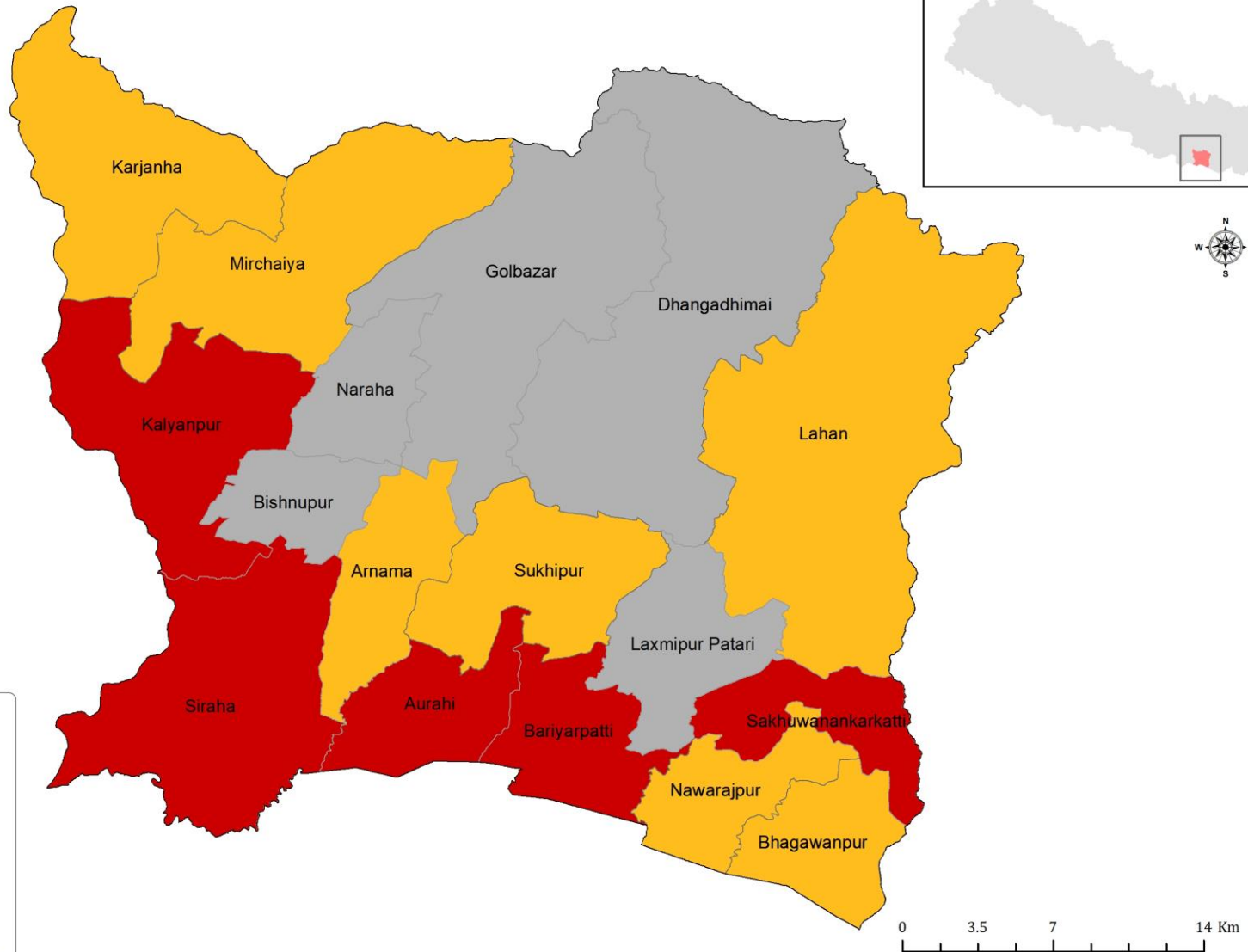
0 4.75 9.5 19 Km

Data sources: DDNC, DAO, LG, A&C, Livestock Office (GoN), Sentinel-1 satellite image 12 & 13 July 2019, WFP Nepal, WorldPop 2019, NRCS, Local NGOs, Traders






ANNEX 6.g Siraha (29 July)

Priority Areas Based on Flood Affected Population and Prevalence of Food Poverty in Siraha District

(As of 29 July 2019)



Priority area

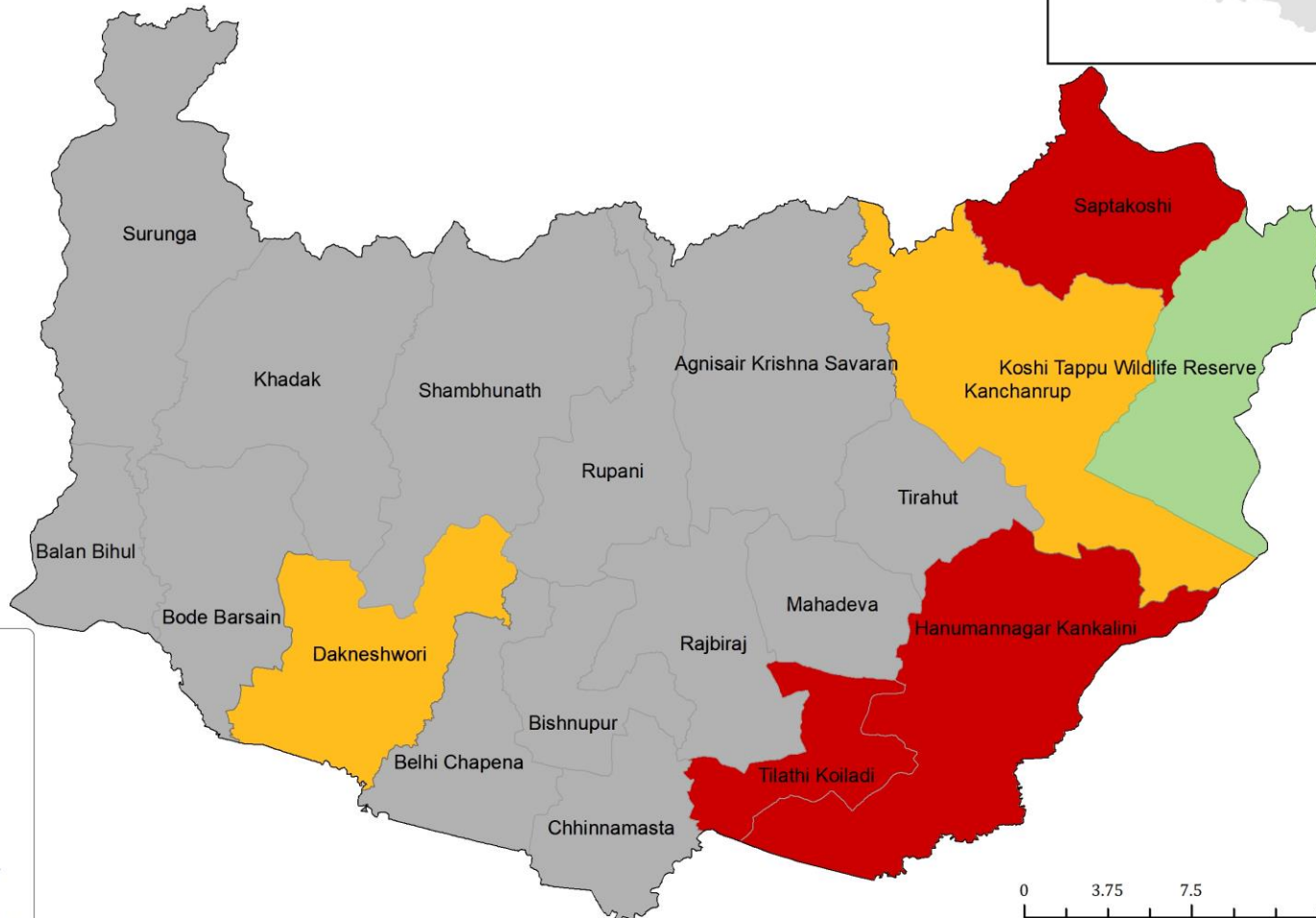
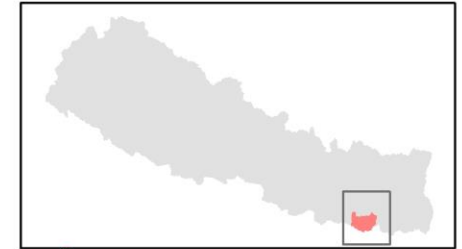
-  Priority 1
-  Priority 2
-  Priority 3
-  Least priority
-  Protected areas

Data sources: DDNC, DAO, LG, ANC, Livestock Office (GoN), Sentinel-1 satellite image 12 & 13 July 2019, WFP Nepal, WorldPop 2019, NRCS, Local NGOs, Traders

ANNEX 6.h Saptari (29 July)

Priority Areas Based on Flood Affected Population and Prevalence of Food Poverty in Saptari District

(As of 29 July 2019)



Priority area

- Priority 1
- Priority 2
- Priority 3
- Least priority
- Protected areas

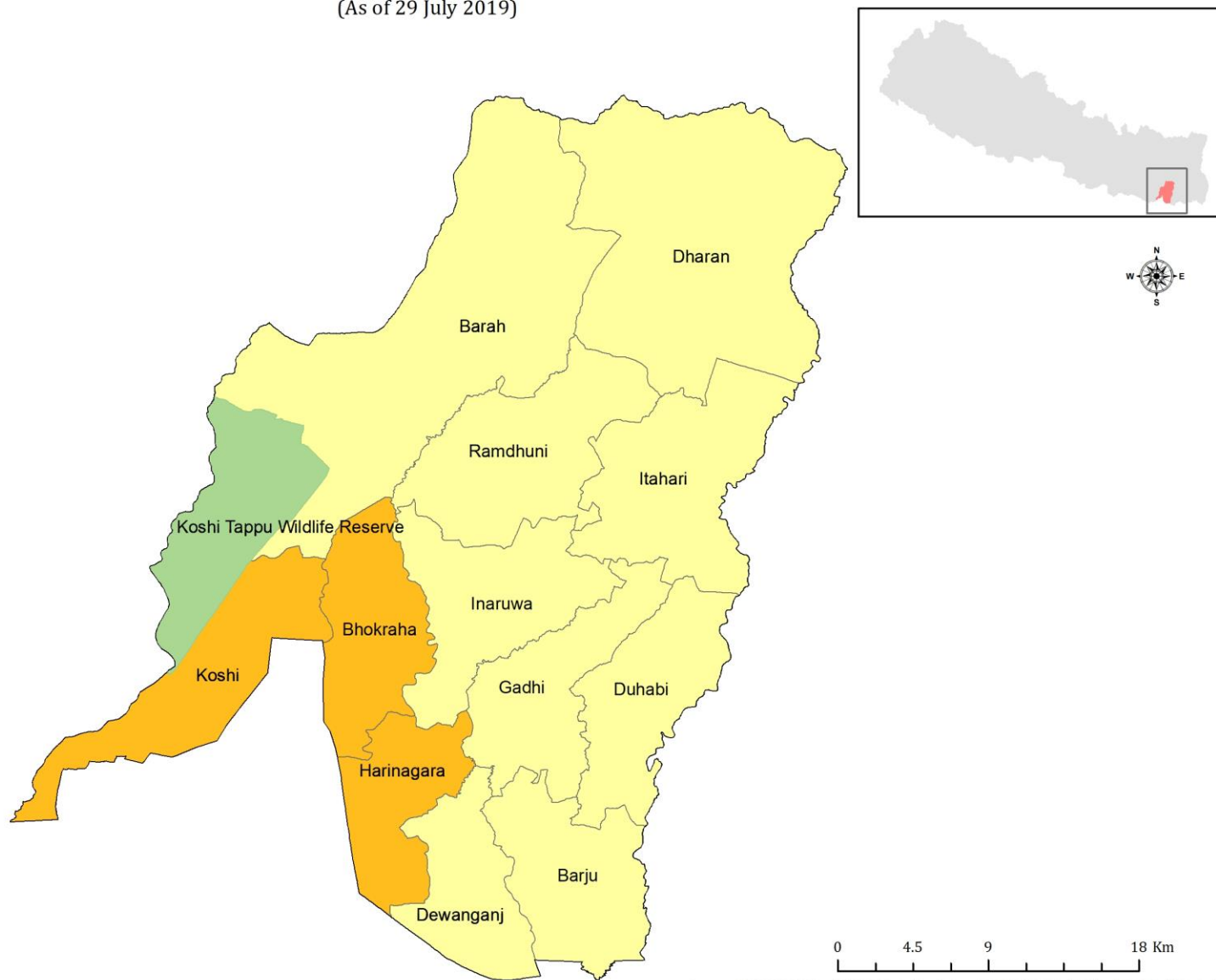
0 3.75 7.5 15 Km

Data sources: DDNC, DAO, LG, ANC, Livestock Office (GoN), Sentinel-1 satellite image 12 & 13 July 2019, WFP Nepal, WorldPop 2019, NRCS, Local NGOs, Traders

ANNEX 6.i Sunsari (29 July)

Priority Areas Based on Flood Affected Population and Prevalence of Food Poverty in Sunsari District

(As of 29 July 2019)



Priority area

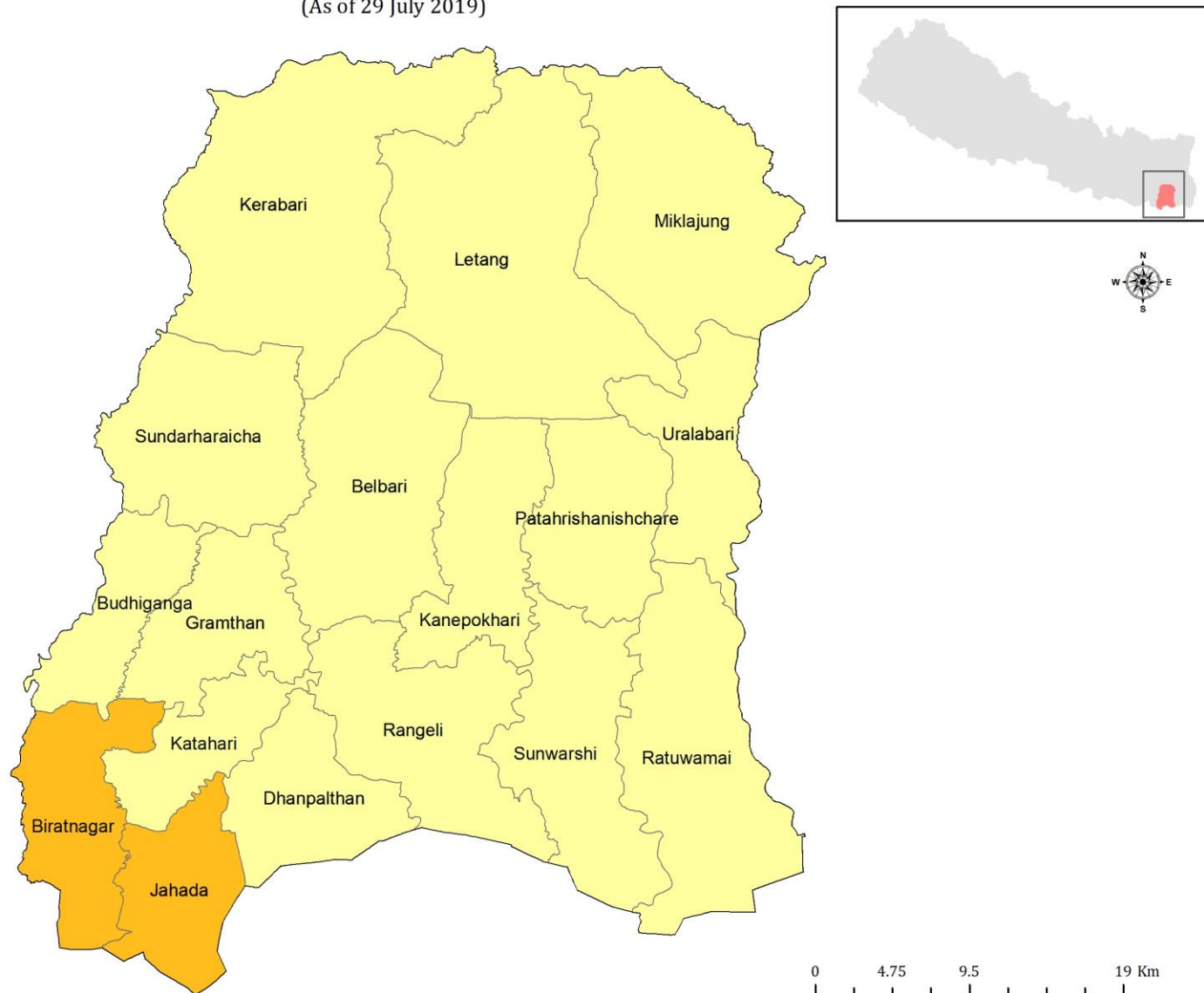
- Priority 1
- Priority 2
- Priority 3
- Least priority
- Protected areas

Data sources: DDNC, DAO, LG, ANC, Livestock Office (GoN), Sentinel-1 satellite image 12 & 13 July 2019, WFP Nepal, WorldPop 2019, NRCS, Local NGOs, Traders






ANNEX 6.j Morang (29 July)

Priority Areas Based on Flood Affected Population and Prevalence of Food Poverty in Morang District

(As of 29 July 2019)



Priority area

-  Priority 1
-  Priority 2
-  Priority 3
-  Least priority
-  Protected areas

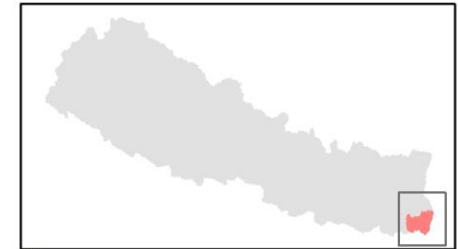
0 4.75 9.5 19 Km

Data sources: DDNC, DAO, LG, ANC, Livestock Office (GoN), Sentinel-1 satellite image 12 & 13 July 2019, WFP Nepal, WorldPop 2019, NRCS, Local NGOs, Traders






ANNEX 6.k Jhapa (29 July)

Priority Areas Based on Flood Affected Population and Prevalence of Food Poverty in Jhapa District

(As of 29 July 2019)



Priority area

-  Priority 1
-  Priority 2
-  Priority 3
-  Least priority
-  Protected areas

0 4.75 9.5 19 Km

Data sources: DDNC, DAO, LG, ABC, Livestock Office (GoN), Sentinel-1 satellite image 12 & 13 July 2019, WFP Nepal, WorldPop 2019, NRCS, Local NGOs, Traders