



**GOVERNMENT OF PAKISTAN
MINISTRY OF WATER AND POWER
PROJECT MANAGEMENT & POLICY IMPLEMENTATION UNIT (PMPIU)**

**Water Sector Capacity Building and Advisory
Services Project (WCAP)**

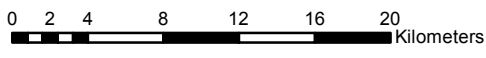
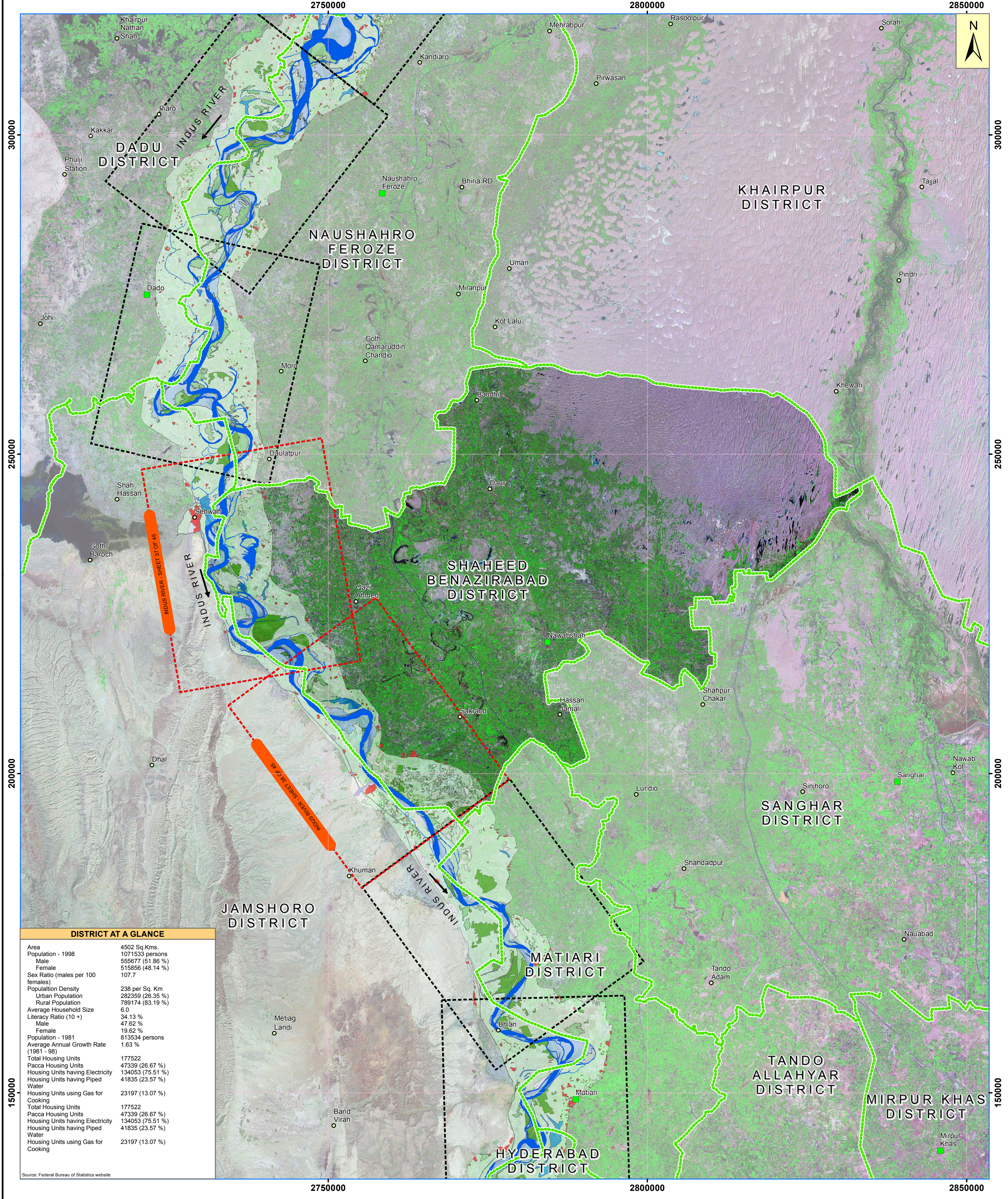
**Development of National Flood Protection Plan-IV (NFPP-IV)
and Related Studies to Enhance the Capacity of
Federal Flood Commission-FFC**

**LANDUSE AND
DISTRICT LEVEL SUBMERGENCE PLANS**

**DISTRICT SHAHEED BENAZIRABAD
SINDH PROVINCE**

JUNE 2015

DISTRICT SHAHEED BENAZIRABAD



DEVELOPMENT OF NATIONAL FLOOD PROTECTION PLAN-IV (NFPP-IV) AND RELATED STUDIES TO ENHANCE THE CAPACITY OF FEDERAL FLOOD COMMISSION-FFC

DISTRICT SHAHEED BENAZIRABAD

Client :
FEDERAL FLOOD COMMISSION
Ministry of Water & Power

Consultants:
NATIONAL ENGINEERING SERVICES PAKISTAN (PVT) LIMITED
1-C , Block-N, Model Town Extension,
Lahore - Pakistan.

in association with
DELTAES, THE NETHERLANDS

Rev.	Date:	Description	Ckd.	Ver.

Source of Information: 1. Topographic sheets of Survey of Pakistan 2. Freely available satellite imagery	Coordinate System PROJECTION: Lambert Conformal Conic (LMPAK-II) , DATUM: WGS84 Grid Reference is in meters	Date: March 16, 2015
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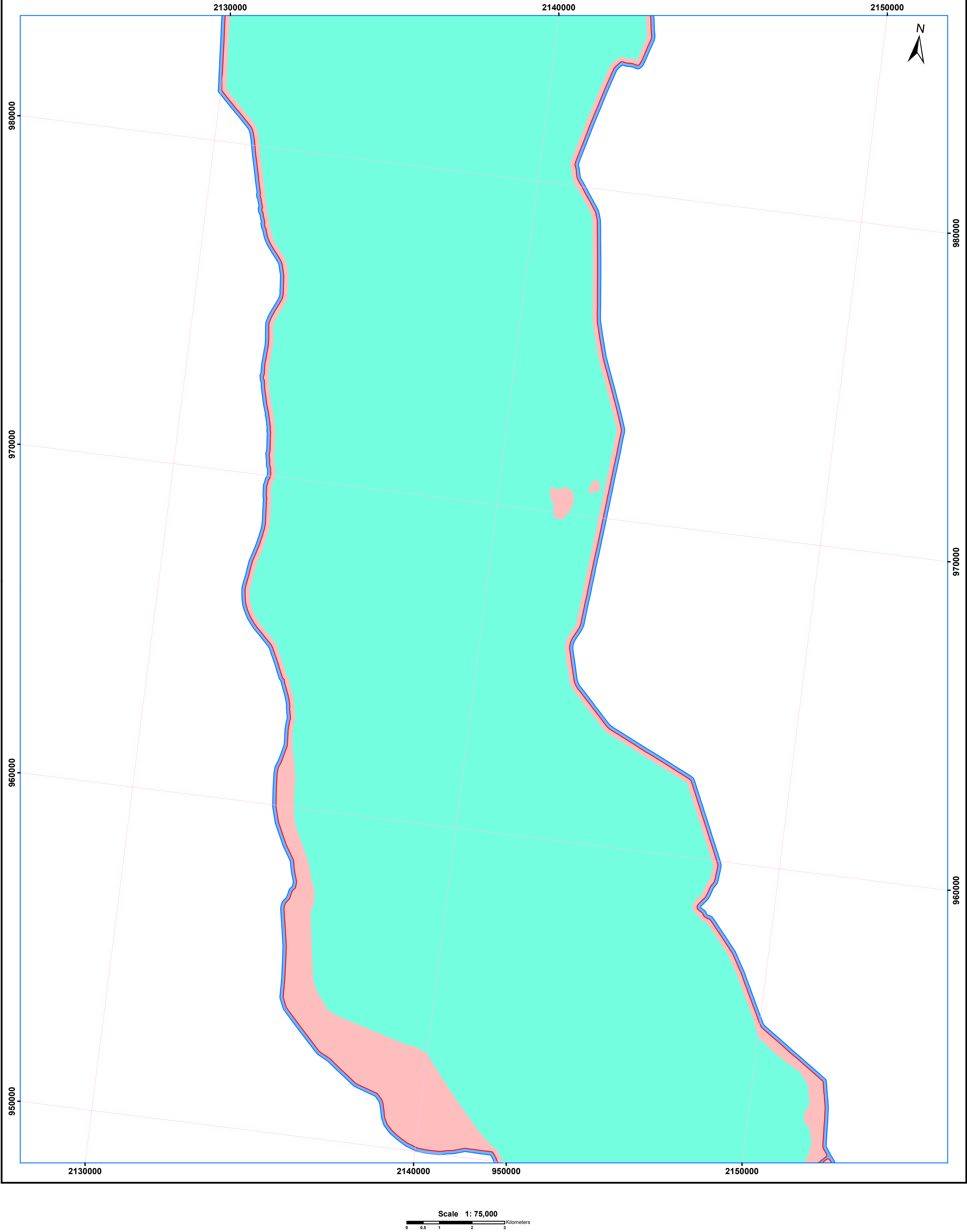
Existing Flood Structures Inventory

Sheet No. 37

Structure No.	Existing Flood Structure	Inventory Code
339	Larkana Sehwan Bund	S255
344	Sehwani Loop Bund Mile 0/0 to 1/0 Second Defence Line.	S191
346	S.M Bund Mile 68/0 to 75/1 First Defence Line.	S75
347	Daulatpur Loop Bund Mile 0/0 to 1/5 First Defence Line.	S76
348	S.M Bund Mile 76/2 to 80/0 First Defence Line.	S77
349	S.M Bund Mile 80/0 to 99/0 First Defence Line.	S78

Sheet No. 38

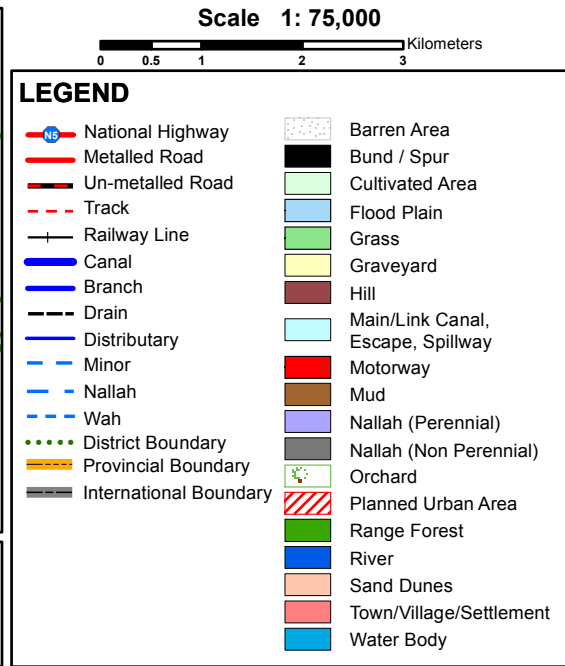
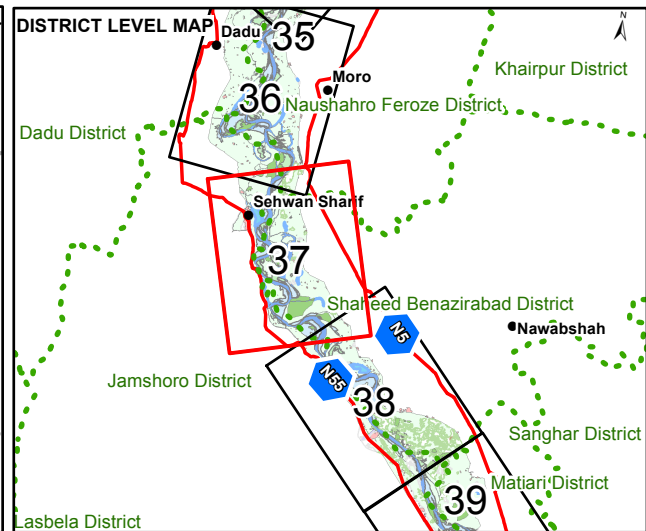
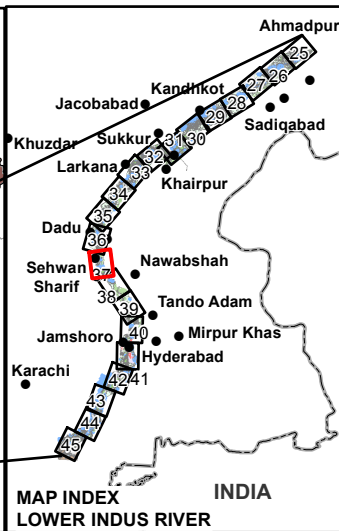
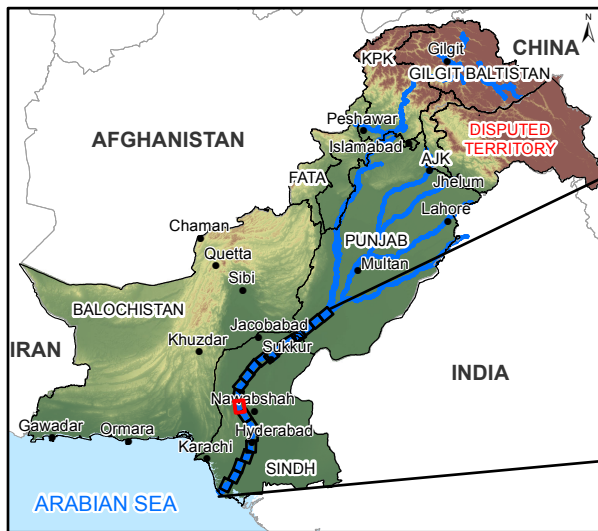
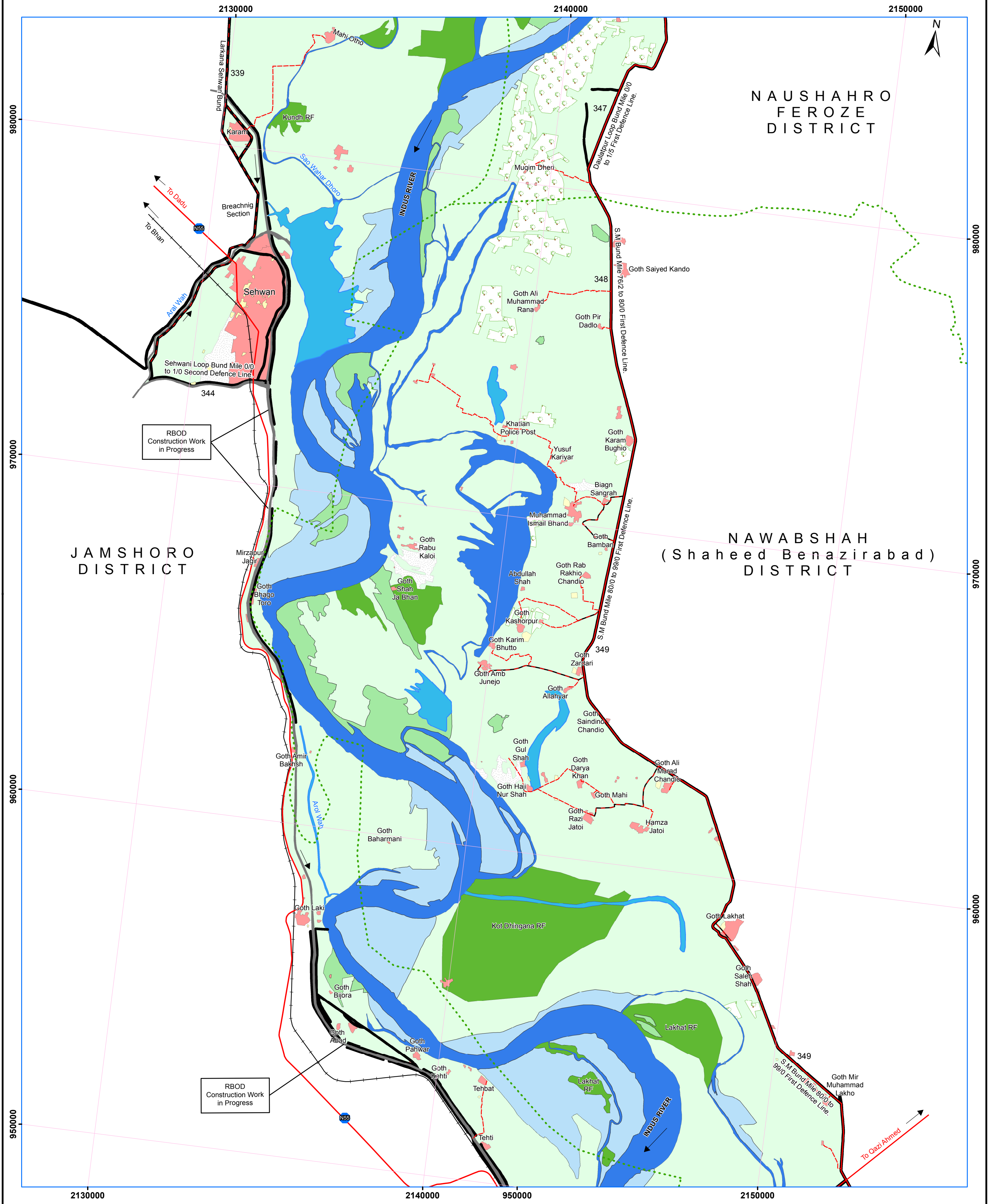
Structure No.	Existing Flood Structure	Inventory Code
349	S.M Bund Mile 80/0 to 99/0 First Defence Line.	S78
350	Chattan Shah Loop Bund Mile 0/0 to 4/4 Second Defence Line.	S113
351	Old Mud Loop Bund Mile 0/0 to 2/2 (Acting as Front Line Bund).	S80
352	Rahib Shah Loop Bund Mile 0/0 to 2/7 Second Defence Line.	S114
353	New Mud Loop Bund Mile 0/0 to 2/1 (Acting as Front Line Bund).	S81
354	Jiand Loop Bund Mile 0/0 to 1/0 Second Defence Line.	S115
355	S.M Bund Mile 104/6 to 123/0 First Defence Line.	S79
356	Sann Veeh Dari Bund	S260



LEGEND

- High Risk Zone (Inundation Extent Corresponding to discharge of 803,000 cusecs below Sukkur)
- Medium Risk Zone (Inundation Extent Corresponding to discharge of 1,122,000 cusecs below Sukkur)
- Low Risk Zone (Inundation Extent Corresponding to discharge of 1,455,000 cusecs below Sukkur)

(Please note that discharge values are based on breachless conditions)



DEVELOPMENT OF NATIONAL FLOOD PROTECTION PLAN-IV (NFPP-IV) AND RELATED STUDIES TO ENHANCE THE CAPACITY OF FEDERAL FLOOD COMMISSION-FFC

LANDUSE MAP
LOWER INDUS RIVER

Client :
FEDERAL FLOOD COMMISSION
Ministry of Water & Power

Consultants:
NATIONAL ENGINEERING SERVICES PAKISTAN (PVT) LIMITED
1-C, Block-N, Model Town Extension,
Lahore - Pakistan.

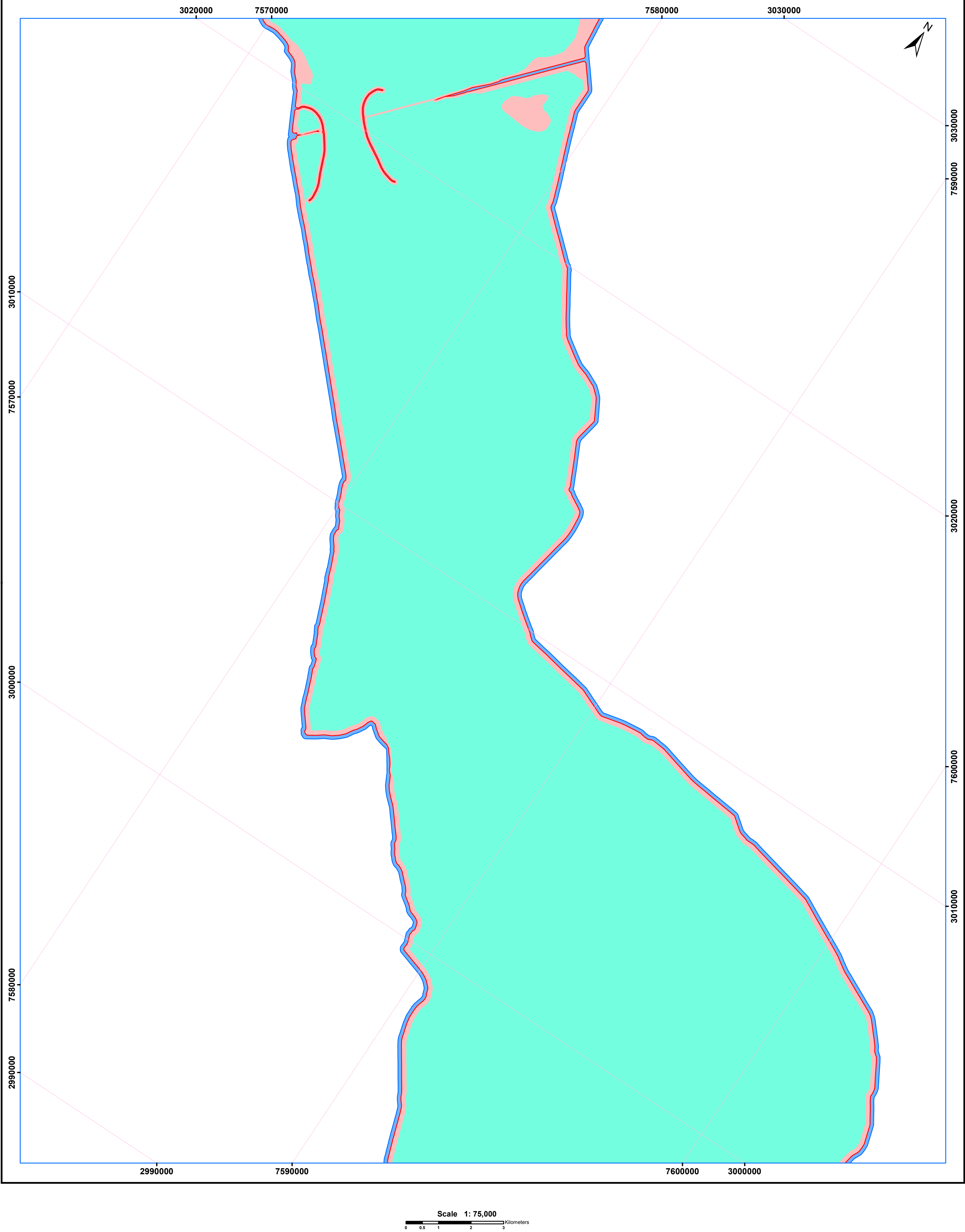
in association with
DELTAES, THE NETHERLANDS

Rev.	Date:	Description	Ckd.	Ver.

Source of Information:
1. Topographic sheets of Survey of Pakistan
2. Freely available satellite imagery
3. FPSP-II GIS data
4. Shuttle Radar Topographic Mission Data (Resolution:90 m)
5. Survey data of Flood protection embankments and structures

Coordinate System
PROJECTION: Lambert Conformal Conic (LMPAK-II) ,
DATUM: WGS84
Grid Reference is in meters

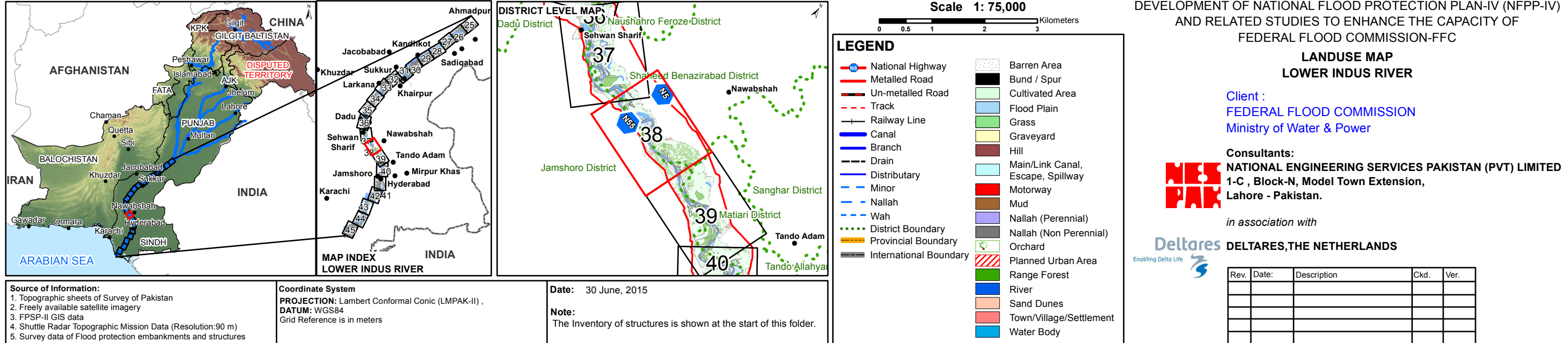
Date: 30 June, 2015
Note: The Inventory of structures is shown at the start of this folder.



LEGEND

- High Risk Zone (Inundation Extent Corresponding to discharge of 803,000 cusecs below Sukkur)
- Medium Risk Zone (Inundation Extent Corresponding to discharge of 1,122,000 cusecs below Sukkur)
- Low Risk Zone (Inundation Extent Corresponding to discharge of 1,455,000 cusecs below Sukkur)

(Please note that discharge values are based on breachless conditions)



Inundation Depth of Settlements in District Shaheed Benazirabad

Lower Indus River - Sheet No. 37

Sr. No.	Name	Zone*	District	Inundation Depth at Discharge of 803,000 Cusec below Sukkur		Inundation Depth at Discharge of 1,122,000 Cusec below Sukkur		Inundation Depth at Discharge of 1,455,000 Cusec below Sukkur	
				Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)
1	Abdullah Shah	H,M,L	Shaheed Benaziraba	0.31	2.19	1.18	3.06	1.78	3.66
2	Goth Ali Muhammad Rano	H,M,L	Shaheed Benaziraba	0.78	1.22	1.64	2.09	2.24	2.69
3	Goth Ali Murad Chandio	H,M,L	Shaheed Benaziraba	0.00	0.03	0.00	0.14	0.00	0.55
4	Goth Allahyar	H,M,L	Shaheed Benaziraba	0.00	0.04	0.00	0.89	0.00	1.49
5	Goth Amb Junejo	H,M,L	Shaheed Benaziraba	0.00	1.07	0.43	1.93	1.03	2.53
6	Goth Amir Bakish	H,M,L	Shaheed Benaziraba	0.91	0.99	1.77	1.85	2.37	2.45
7	Goth Baharmani	H,M,L	Shaheed Benaziraba	0.00	0.26	0.65	1.12	1.25	1.72
8	Goth Baniban	H,M,L	Shaheed Benaziraba	0.00	0.01	0.76	0.88	1.36	1.48
9	Goth Darya Khan and nearby 3 Settlements	H,M,L	Shaheed Benaziraba	0.04	0.49	0.89	1.34	1.49	1.94
10	Goth Gul Shah	H,M,L	Shaheed Benaziraba	0.17	0.59	1.02	1.44	1.62	2.04
11	Goth Haji Nur Shah and nearby 1 Settlement	H,M,L	Shaheed Benaziraba	0.29	0.43	1.14	1.29	1.74	1.89
12	Goth Karam Bugho and nearby 1 Settlement	H,M,L	Shaheed Benaziraba	0.00	0.08	0.00	0.31	0.00	0.48
13	Goth Karim Bhutto	H,M,L	Shaheed Benaziraba	0.00	1.51	0.71	2.37	1.31	2.97
14	Goth Kashorpur and nearby 1 Settlement	H,M,L	Shaheed Benaziraba	0.00	0.31	0.00	0.65	0.00	1.25
15	Goth Mahi	H,M,L	Shaheed Benaziraba	0.67	0.85	1.53	1.70	2.13	2.30
16	Goth Mir Muhammad Lakho and nearby 1 Settlement	H,M,L	Shaheed Benaziraba	0.21	2.18	1.07	3.04	1.65	3.62
17	Goth Pir Dadlo	H,M,L	Shaheed Benaziraba	0.00	0.26	0.00	0.35	0.00	0.84
18	Goth Rab Rakhio Chandio	H,M,L	Shaheed Benaziraba	0.00	0.03	0.00	0.63	0.00	0.92
19	Goth Rabu Kaloi and nearby 5 Settlements	H,M,L	Shaheed Benaziraba	0.00	1.57	0.00	2.44	0.23	3.03
20	Goth Razi Jatoi and nearby 1 Settlement	H,M,L	Shaheed Benaziraba	0.42	1.13	1.27	1.99	1.87	2.59
21	Goth Shah Ja Bhan and nearby 1 Settlement	H,M,L	Shaheed Benaziraba	0.00	0.47	0.00	0.50	0.00	1.10
22	Goth Zardani	H,M,L	Shaheed Benaziraba	0.00	0.02	0.00	0.14	0.00	0.69
23	Hamza Jatoi and nearby 2 Settlements	H,M,L	Shaheed Benaziraba	0.00	0.64	0.00	1.50	0.32	2.10
24	Khatian Police Post and nearby 6 Settlements	H,M,L	Shaheed Benaziraba	0.33	0.71	1.20	1.57	1.79	2.16
25	Natan Mahr	H,M,L	Shaheed Benaziraba	0.28	0.46	1.13	1.31	1.73	1.91
26	Yusuf Karhyar	H,M,L	Shaheed Benaziraba	0.00	0.37	0.00	0.83	0.96	1.43
27	Biago Sangrah	M,L	Shaheed Benaziraba	0.00	0.00	0.00	0.14	0.00	0.58
28	Goth Bhago Toro	M,L	Shaheed Benaziraba	0.00	0.00	0.00	0.35	0.00	0.95
29	Muhammad Ismail Bhand	M,L	Shaheed Benaziraba	0.00	0.00	0.00	0.26	0.00	0.85

Lower Indus River - Sheet No. 38

Sr. No.	Name	Zone*	District	Inundation Depth at Discharge of 803,000 Cusec below Sukkur		Inundation Depth at Discharge of 1,122,000 Cusec below Sukkur		Inundation Depth at Discharge of 1,455,000 Cusec below Sukkur	
				Min (m)	Max (m)	Min (m)	Max (m)	Min (m)	Max (m)
1	1 Settlement nearby Mehrabpur	H,M,L	Shaheed Benazirabo	0.00	1.05	0.00	1.81	0.00	1.98
2	1 Settlement nearby Murad Ali	H,M,L	Shaheed Benaziraba	0.00	0.46	0.66	1.26	1.20	1.79
3	Goth Mohsin Shah	H,M,L	Shaheed Benaziraba	0.53	2.63	1.38	3.48	1.96	4.06
4	Goth Pakhial	H,M,L	Shaheed Benaziraba	0.00	0.09	0.00	0.67	0.56	1.15
5	Jan Muhammad Lashari	M,L	Shaheed Benaziraba	0.00	0.00	0.98	2.97	1.56	3.55
6	Muhammad Qasim Marri	M,L	Shaheed Benaziraba	0.00	0.00	2.66	2.83	3.24	3.41
7	Nazar Muhammad Shah	M,L	Shaheed Benaziraba	0.00	0.00	1.45	1.84	2.03	2.42
8	Nazar Muhammad Shah and nearby 1 Settlement	M,L	Shaheed Benaziraba	0.00	0.00	1.05	1.67	1.63	2.25
9	Jalal Khan Makrani	L	Shaheed Benaziraba	0.00	0.00	0.00	0.00	0.00	1.10

Zone*

H= High Risk Inundation Zone corresponds to 5 yr return period flood

M=Medium Risk Inundation Zone corresponds to 15 yr return period flood

L= Low Risk Inundation Zone corresponds to 50 yr return period flood