

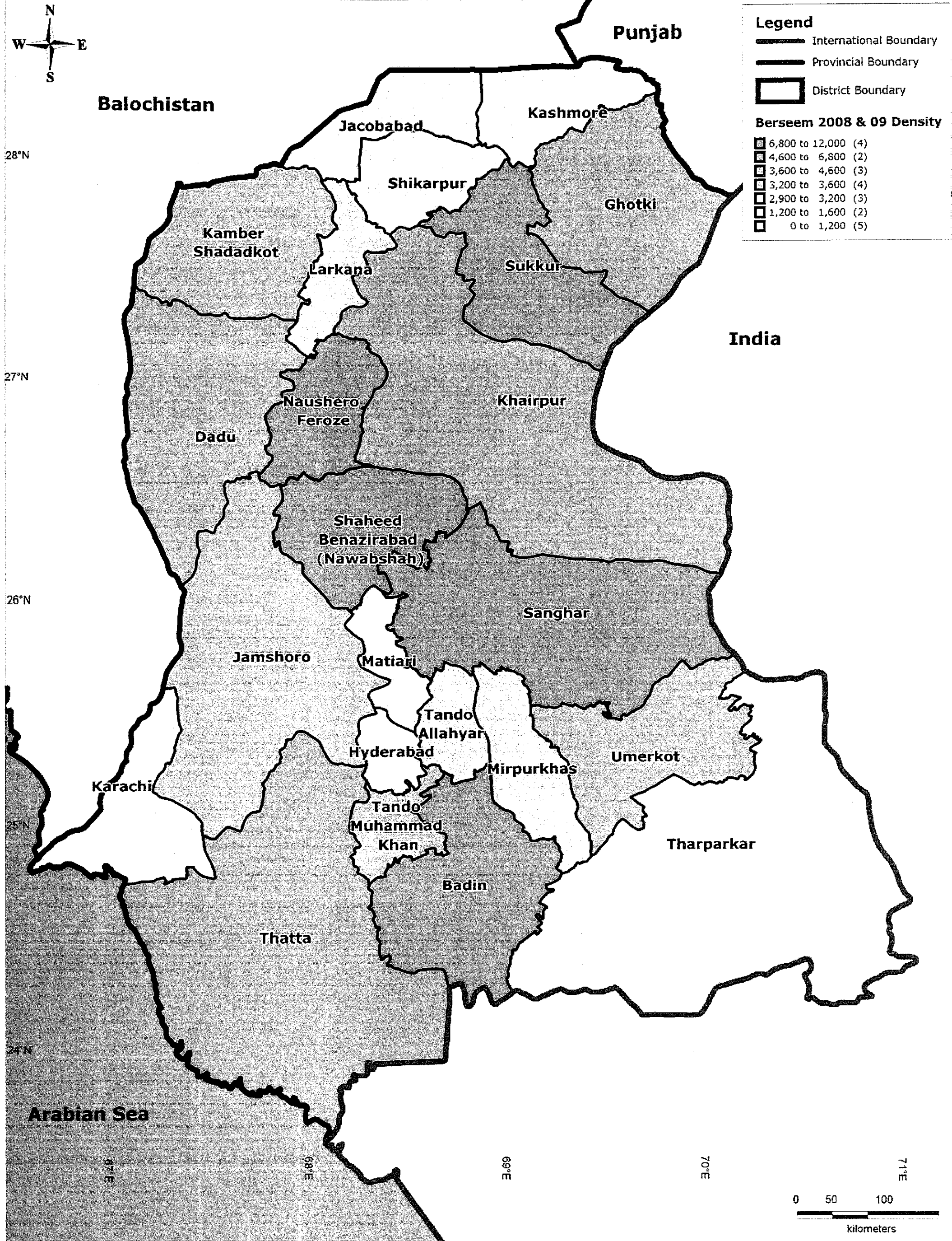


**Legend**

- International Boundary
- Provincial Boundary
- District Boundary

**Berseem 2008 & 09 Density**

- 6,800 to 12,000 (4)
- 4,600 to 6,800 (2)
- 3,600 to 4,600 (3)
- 3,200 to 3,600 (4)
- 2,900 to 3,200 (3)
- 1,200 to 1,600 (2)
- 0 to 1,200 (5)



**JICA Project Team:**  
 Kaihatsu Management Consulting, Inc.  
 C.D.C. International Corporation

**Prepared By:**  
 Exponent Engineers (Pvt.) Ltd

**The Project for the Master Plan Study on  
 Livestock, Meat and Dairy Development in Sindh  
 Province**

**District-wise Berseem Density 2008 & 09**



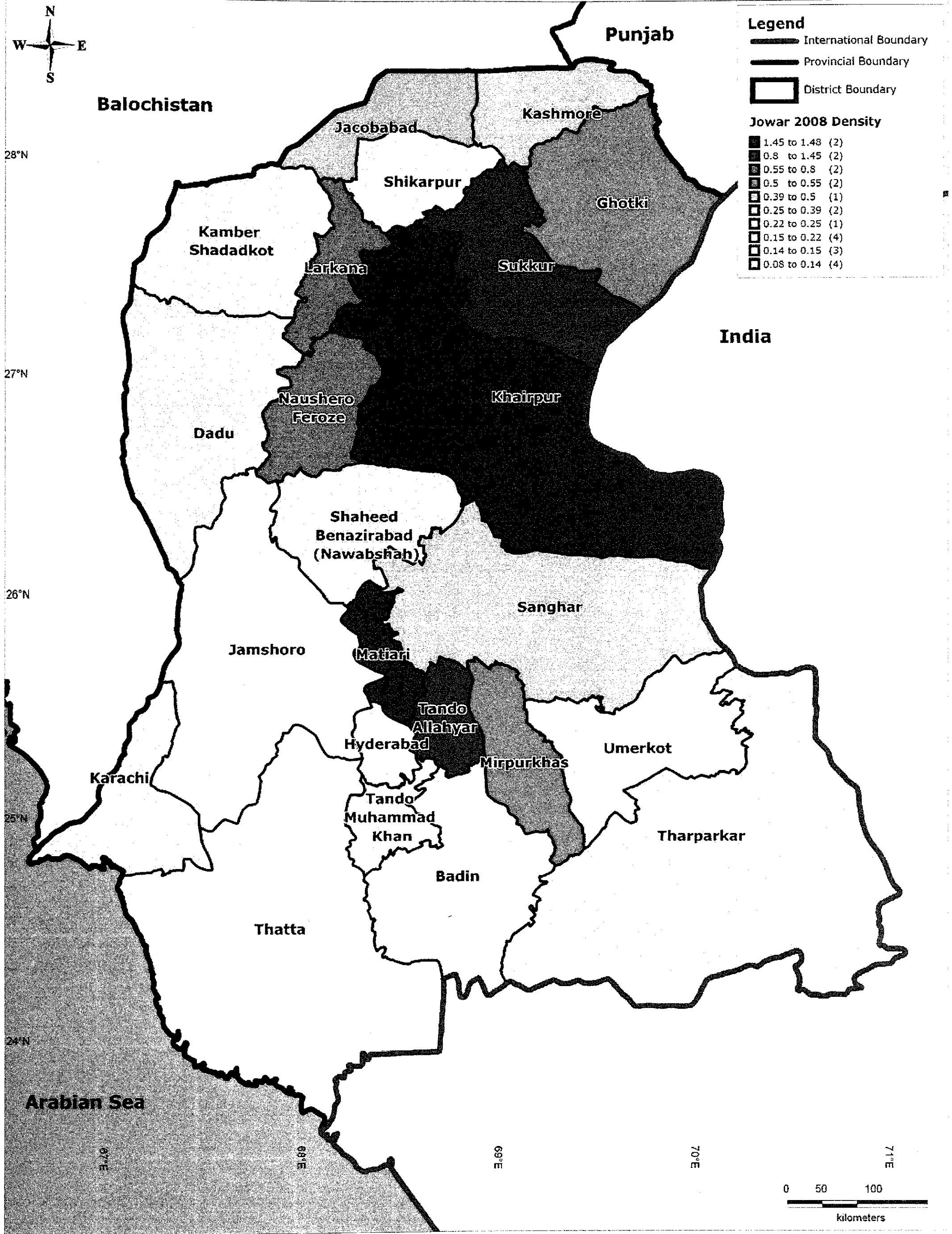


**Legend**

- International Boundary
- Provincial Boundary
- District Boundary

**Jowar 2008 Density**

	1.45 to 1.43	(2)
	0.8 to 1.45	(2)
	0.55 to 0.8	(2)
	0.5 to 0.55	(2)
	0.39 to 0.5	(1)
	0.25 to 0.39	(2)
	0.22 to 0.25	(1)
	0.15 to 0.22	(4)
	0.14 to 0.15	(3)
	0.08 to 0.14	(4)



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**District-wise Jowar Density in Sindh**







**Legend**

- International Boundary
- Provincial Boundary
- District Boundary

**Lucerne 2008 & 09 Density**

- 0.96 to 3.2 (2)
- 0.75 to 0.96 (2)
- 0.7 to 0.75 (1)
- 0.6 to 0.7 (3)
- 0.47 to 0.6 (1)
- 0.42 to 0.47 (3)
- 0.34 to 0.42 (2)
- 0.25 to 0.34 (3)
- 0.1 to 0.25 (1)
- 0 to 0.1 (5)

28°N

27°N

26°N

25°N

24°N

**Balochistan**

**Punjab**

**India**

**Arabian Sea**

Karachi

Dadu

Kamber  
Shadadkot

Larkana

Shaheed  
Benazirabad  
(Nawabshah)

Jamshoro

Hyderabad

Thatta

Matiari

Tando  
Allahyar

Tando  
Muhammad  
Khan

Badin

Jacobabad

Shikarpur

Kashmore

Sukkur

Ghotki

Khairpur

Sanghar

Mirpurkhas

Umerkot

Tharparkar

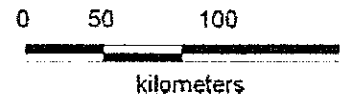
67°E

68°E

69°E

70°E

71°E



DIRECTORATE GENERAL LIVESTOCK  
Sindh-Hyderabad

**JICA Project Team:**

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**Prepared By:**  
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Province**

**District-wise Lucerne Density in Sindh**



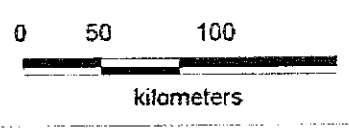
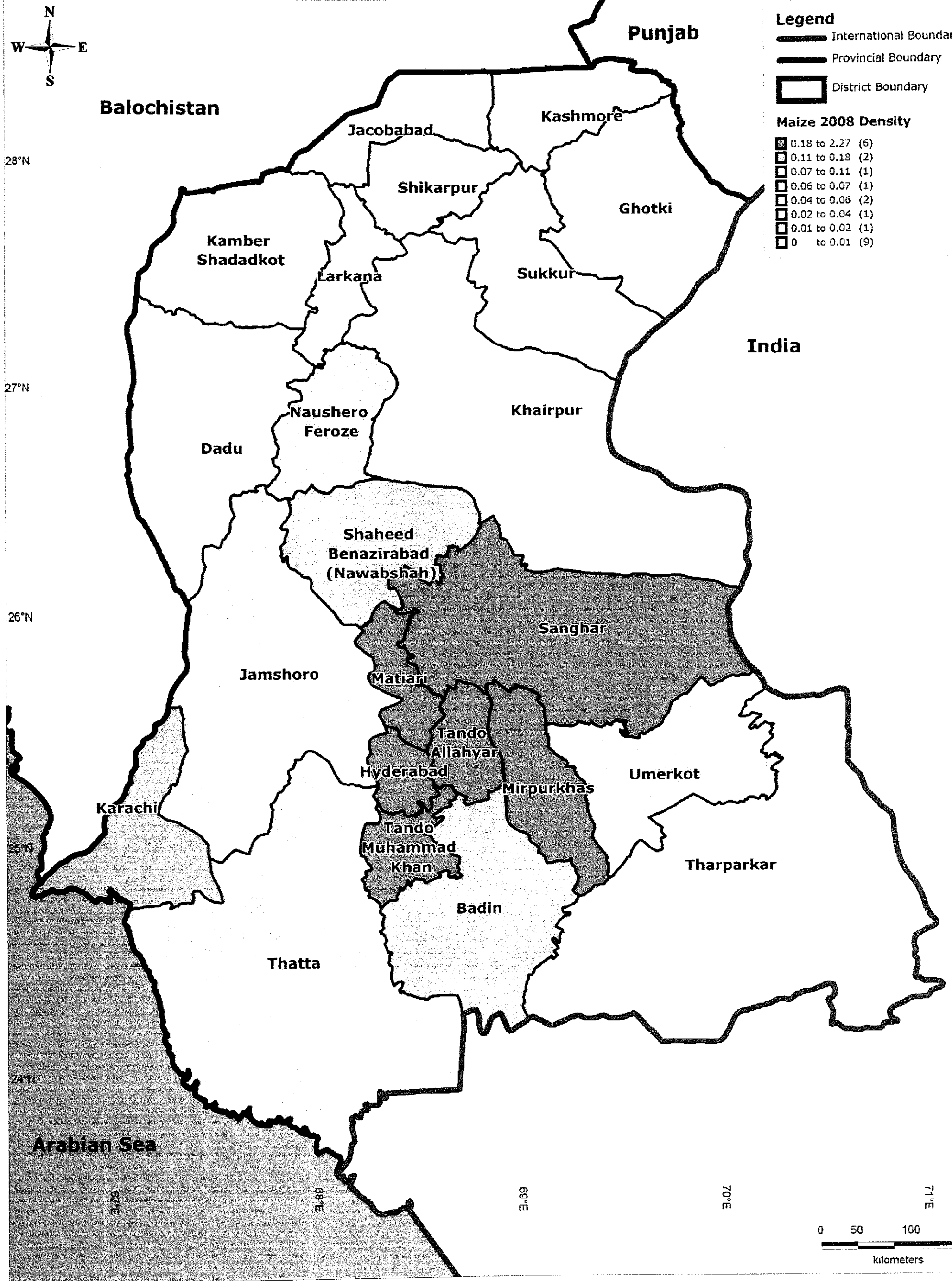


**Legend**

- International Boundary
- Provincial Boundary
- District Boundary

**Maize 2008 Density**

- 0.18 to 2.27 (6)
- 0.11 to 0.18 (2)
- 0.07 to 0.11 (1)
- 0.06 to 0.07 (1)
- 0.04 to 0.06 (2)
- 0.02 to 0.04 (1)
- 0.01 to 0.02 (1)
- 0 to 0.01 (9)



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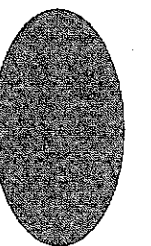
**Prepared By:**  
Exponent Engineers (Pvt.) Ltd

The Project for the Master Plan Study on  
Livestock, Meat and Dairy Development in Sindh  
Province

District-wise Maize Density in Sindh



**9 - WATER**







Balochistan

Punjab

**Legend**

**Boundaries**

International Boundary

Provincial Boundary

District Boundary

**Ground Water Potential**

- Yield b/w 100 to 300 cubic meter per hour
- Yield b/w 50 to 100 cubic meter per hour
- Yield b/w 10 to 50 cubic meter per hour
- Yield less than 10 cubic meter per hour

28°N

27°N

26°N

India

Karachi

Arabian Sea

67°E

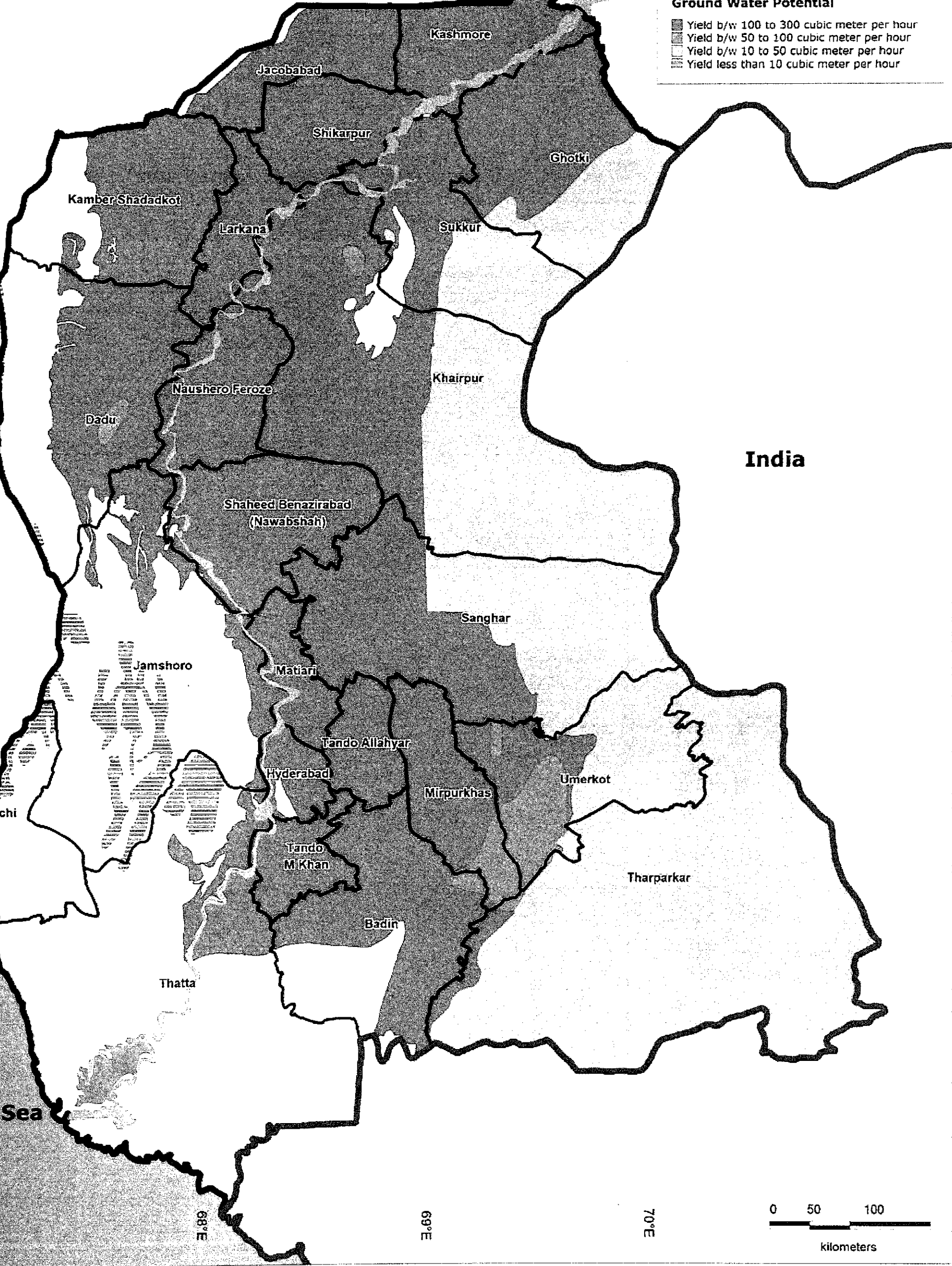
68°E

69°E

70°E

0 50 100

kilometers



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Sindh-Hyderabad

JICA Project Team:

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C.D.C. International Corporation

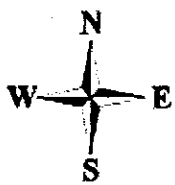
Prepared By:  
Exponent Engineers (Pvt.) Ltd

The Project for the Master Plan Study on  
Livestock, Meat and Dairy Development in Sindh  
Province

Groundwater Potential in Districts of Sindh

Source: WAPDA, (1991) 'Hydrogeological Map of Pakistan', Printed at the Survey of Pakistan,  
Rawalpindi, Pakistan





Balochistan

Punjab

**Legend**

**Boundaries**

— International Boundary

— Provincial Boundary

□ District Boundary

**Groundwater Quality**

■ Polluted Ground water in city

□ Isocon (mg/l)

■ Area where Saline water is overlain by fresh water

■ Localised saline pockets

28°N

27°N

26°N

India

Arabian Sea

Karachi

Thatta

Tando M Khan

Badin

Hyderabad

Tando Allahyar

Matiari

Jamshoro

Sanghar

Shaheed Benazirabad (Nawabshah)

Dadu

Naushero Feroze

Khairpur

Sukkur

Larkana

Kamber Shadadkot

Shikarpur

Jacobabad

Kashmore

Ghotki

Umerkot

Tharparkar

Mirpurkhas

70°E

69°E

68°E

67°E

0 50 100

kilometers



DIRECTORATE GENERAL LIVESTOCK & POULTRY  
Sindh, Hyderabad

JICA Project Team:

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C.D.C. International Corporation

Prepared By:  
Exponent Engineers (Pvt.) Ltd

The Project for the Master Plan Study on  
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Province

Groundwater Quality in Districts of Sindh

Source: WAPDA (1982) 'Investigation on Map of Pakistan'. Printed at the Survey of Pakistan, Islamabad, Pakistan.





Balochistan

Punjab

**Legend**

- International Boundary
- Provincial Boundary
- District Boundary

**Depth in "cm"**

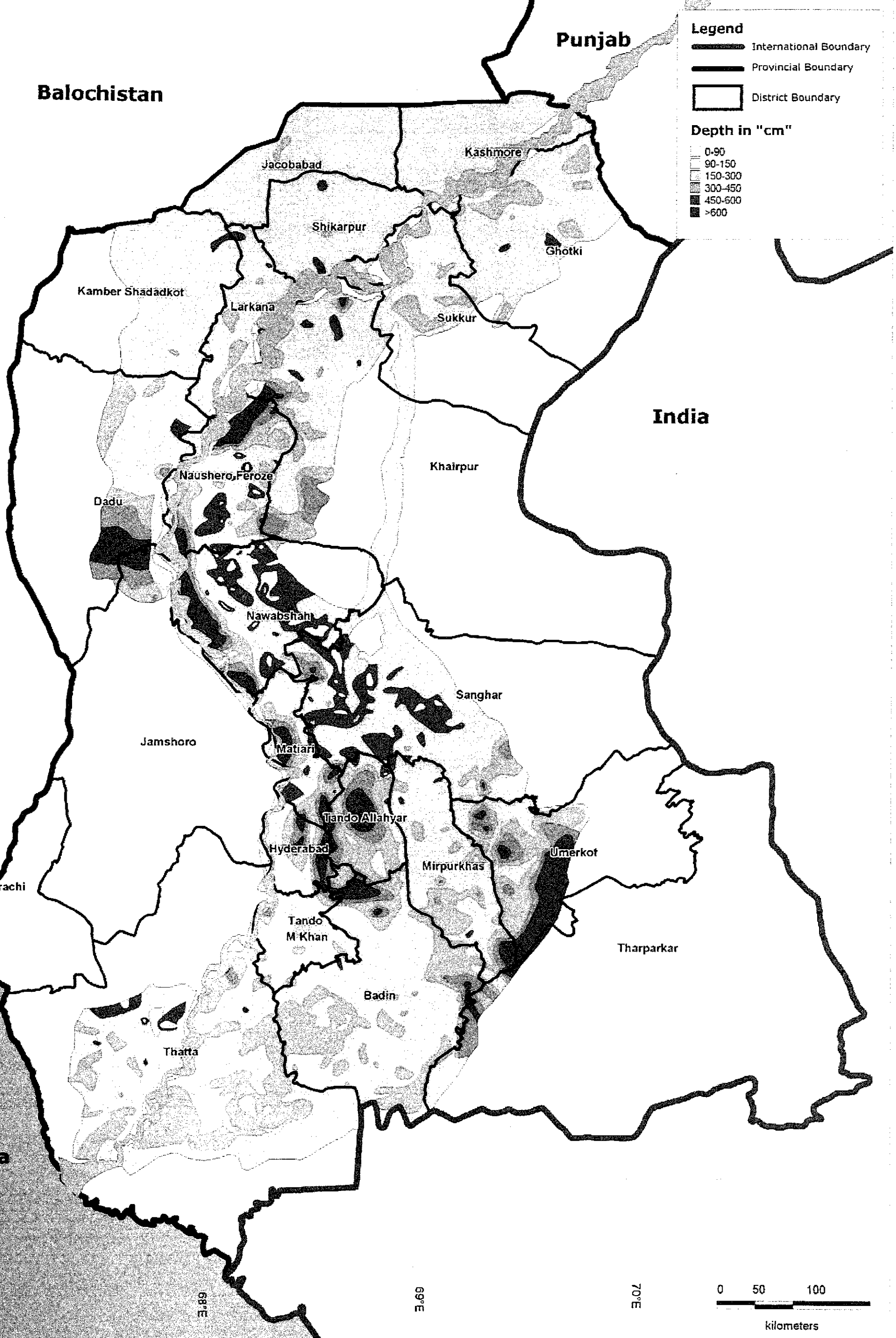
- 0-90
- 90-150
- 150-300
- 300-450
- 450-600
- >600

28°N

27°N

26°N

25°N



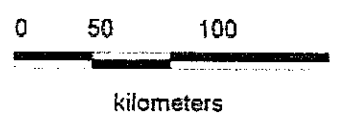
Arabian Sea

67°E

68°E

69°E

70°E



DIRECTORATE GENERAL LIVESTOCK, Sindh-Hyderabad

**JICA Project Team:**  
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**Prepared By:**  
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**The Project for the Master Plan Study on  
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 Province**

**Groundwater Depth in the Irrigated Areas in Sindh  
 (Pre-monsoon 2010)**

Source: ICARR Monitoring Office, WAFDA







Balochistan

Punjab

**Legend**

**Boundaries**

- International
- Provincial

**Hydrologic Features**

- River

**Hydraulic Structures**

- Main Canal

**Percentage of Area Saline**

- 0 to 15 (9)
- 15 to 25 (3)
- 35 to 45 (8)
- 45 to 55 (2)
- 55 to 65 (5)
- 65 to 75 (3)

28°N

27°N

26°N

India

Arabian Sea

67°E

68°E

69°E

70°E

0 50 100

kilometers



DIRECTORATE GENERAL LIVESTOCK  
Sindh-Hyderabad

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The Project for the Master Plan Study on  
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Province

Surface Salinity in Sindh

Source: SCARP Monitoring Office, WAPDA

