

BRIEF BIODATA OF DR. A. K. MANDAL

1. **Name:** DR. A. K. MANDAL

2. **Date of birth:** 01-01-1962

3. Present position and postal, phone and email address

Present position: Senior Scientist

Postal address D-11, CSSRI, Karnal

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4. Academic record (Bachelors degree onward)

Degree	University/ institution	Year	Distinction if any
B. Sc (Hons)	Calcutta University	1982	NA
M. Sc. (Ag.)	Calcutta University	1984	Yes
Ph. D. (Ag.)	Calcutta University	1992	NA

5. Research Experience

(a) Total (Yrs) Sixteen years

(b) Year wise breakup with position

Year	Position	Pay scale
1991-1996	Scientist	Rs. 2200-4000
1996-2001	Scientist (Senior Scale)	Rs. 10000-15200
2001- onwards	Senior Scientist	Rs. 12000-18300

6. Specialization:

a) Scientific capabilities and interest (3-5 Key words)

Salt Affected Soils, Remote Sensing, Database, Geographic Information System,
Waterlogged soils

b) Salient Accomplishments (3-5 in bullet form)

- Mapping waterlogged salt affected soils in irrigated region of IGNP using remoter sensing
- Characterization of soil salinity and waterlogging in IGNP command
- Geo-referenced base map was prepared from the Survey of India maps using ILWIS GIS software
- Georeferencing and digitization of salt affected soils maps of NRSA (1997) to generate digital polygons of SAS
- The state map of salt affected soils were prepare for fifteen states using GIS

- A relational database was prepared linking spatial and attributes data sets in GIS
- Regional database of salt affected soils in IGP, Western and Central Arid and Semi-arid Region and Peninsular Plains and Coastal Plains were prepared

c) International Exposure: Training on the “Remote Sensing and Geographical Information System for Water Management and Salinity Control in canal command” at the International Institute for Geo-information Sciences and Earth Observation (ITC), the Netherlands April 27 to June 26, 1998

7. Publications

a) (i) Research (Journals)	12
(ii) Books	nil
(iii) Book Chapter/ Manual	7
(iv) National /International Seminar/Symposia	7
(v) Bulletins/ Technical Reports	3
Total	29

b) Best 5 Publications of last 10 years (to be appended)

1. Mandal, A. K. and Sharma, R. C. (2006) Computerized database of salt affected soils for Agro-climatic Regions in the Indo-Gangetic Plain of India using GIS. *Geocarto International* 21 (2): 47-58.
2. Mandal, A. K. and Sharma, R. C. (2005) Computerized database on salt affected soils of Haryana State. *Journal of the Indian Society of Remote Sensing* 33(3): 447-455.
3. Mandal, A. K. and Sharma, R. C. (2001) Mapping of Waterlogged areas and salt affected soils in the IGNP command area. *Journal of the Indian Society of Remote Sensing* 29(4): 229-235.
4. Mandal, A. K. and Sharma, R. C. (1997) Characterization of some salt affected soils of Indira Gandhi Nahar Pariyojona command area, Rajasthan. *Agropedology* 7: 84-89.
5. R. C. Sharma and A. K. Mandal (2006) Mapping of soil salinity and sodicity using image analysis and GIS in irrigated lands of the Indo-Gangetic Plain. *Agropedology* (16(2), 71-76

c) Best 10 publication of whole career (to be appended)

1. Mandal, A. K. and Sharma, R. C. (2006) Computerized database of salt affected soils for Agro-climatic Regions in the Indo-Gangetic Plain of India using GIS. *Geocarto International* 21 (2): 47-58.

2. Mandal, A. K. and Sharma, R. C. (2005) Computerized database on salt affected soils of Haryana State. *Journal of the Indian Society of Remote Sensing* 33(3): 447-455.
3. Mandal, A. K. and Sharma, R. C. (2001) Mapping of Waterlogged areas and salt affected soils in the IGNP command area. *Journal of the Indian Society of Remote Sensing* 29(4): 229-235.
4. Mandal, A. K. and Sharma, R. C. (1997) Characterization of some salt affected soils of Indira Gandhi Nahar Pariyojona command area, Rajasthan. *Agropedology* 7: 84-89.
5. R. C. Sharma and A. K. Mandal (2006) Mapping of soil salinity and sodicity using image analysis and GIS in irrigated lands of the Indo_Gangetic Plain. *Agropedology* (16(2), 71-76
6. Mandal, A. K. and Sharma, R. C. (2007) Delineation and characterization of Waterlogging and salt affected areas in canal irrigated semiarid region of North West India. *Geocarto International* (Accepted for publication)
7. Mandal, A. K. and Sharma, R. C. (2007) Computerized database on salt affected soils in Western and Central India using GIS. *Geocarto International* (under review)
8. Mandal, A. K. and Sharma, R. C. (2007) Computerized database on salt affected soils in Peninsular plain in India using GIS. *Geocarto International* (under review)
9. Mandal, A. K. and Adhikari, M. (1997) Influence of soil properties on Interaction of Pesticides with soils. *J. Indian Chem. Soc.* 74: 114-118.
10. Mandal, A. K. and Adhikari, M. (1995) Role of organic matter and sesquioxides in the adsorption of pesticides on soils. *J. Indian soc. Soil Sci.* 43(4): 561-567.

8. Awards /Special recognition (Limit to the best five)

Name of the Award/ Recognition	Awarding Organization	Year	National /International/ Institutional/ Professional Society	Additional Information
Member of the Working Group on "Diagnosis, genesis, classification, and extent of the salt affected soils	CSSRI, Karnal	2004- 2007	CSSRI, Karnal	Consensus on the diagnostic criteria and extent of salt affected soils in India
External examiner	CSSRI,	2006	CSSRI, Karnal	Tamilnadu Agricultural

(Pedology/Soil Survey)	Karnal			University, Coimbatore
In-charge of Tracing unit at Soil and Crop Management Div.	CSSRI, Karnal	2001-2007	CSSRI, Karnal	To upgrade and develop infrastructure
Member of the committee for revision of manual on "Reclamation and Management of waterlogged saline and alkali soils"	CSSRI, Karnal	2007	CSSRI, Karnal	To prepare modalities for revision of the manual based on the request of Commissioner (CADWM)
Member of the committee to develop the updated Computer centre, video conference and multimedia laboratory	CSSRI, Karnal	2007	CSSRI, Karnal	Prepare modalities for development of updated computer centre, e-mail facilities, multimedia and video-conferencing laboratory
Member of the institute purchase committee	CSSRI, Karnal	1996-2007	CSSRI, Karnal	To conduct purchase of the bulk items for the central store & other Departments