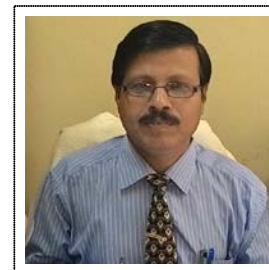


Scientist Profile

1. Name: **Dr. A.K.Biswas**
2. Designation: **Pr. Scientist & HoD (Soil Chemistry & Fertility)**
3. Date of Birth: **05.05.1963**
4. Education: **Ph.D. (Soil Science)**
5. Major research areas: **Soil Science (Soil Chemistry & Fertility;
Soil & Water Pollution)**
6. E-mail: **akb63@yahoo.com; ashish.biswas@icar.gov.in**
7. Contact: **0755-27333372,41 Ext 214.**
8. Professional Experience (Applicable to all):



During my professional career I worked on phosphorus chemistry in soils, environmental impact and risk assessment of use of sewage and distillery wastes in agriculture, determination of sink capacity of mineralogically and physico-chemically variant soils for some heavy metal pollutants and phyto-remedial efficiency of some flowering plants to decontaminate Cd, Pb and Cr contaminated soils, delineation of nitrate contamination of groundwater in heavily fertilized and intensively cultivated districts of the country, evaluation of the effect of climate change on soil carbon stock in different agro-ecoregions of the country, development of soil organic C and N turnover model in light of C saturation and stabilization theory, development of methodology to estimate relative soil quality index to assess soil health under different agro-ecoregions of the country, and development of nano rock phosphate for commercial utilization of low-grade indigenous rockphosphates of the country and modified urea products like oleoresin coated urea, zeolite-impregnated and biochar coated urea.

9. Awards (applicable to Scientists):

- Obtained **Merit-cum-Means Scholarship** from ICAR during B.Sc.(Ag.) Hons. study at BCKV, Mohanpur, W.B.
- Obtained **Junior Fellowship** from ICAR through All India Competitive Examination for Master's Degree Programme.
- Obtained **IARI Junior and Senior Fellowships** for Master and Doctoral Degree Programmes, respectively.
- Obtained **IARI Gold Medal** for outstanding academic performance during Master's Degree Programme.
- Received the prestigious "**Jawahar Lal Nehru Award**" from ICAR for outstanding doctoral research in the field of Soil Science.
- Dr. A.K. Biswas HOD (SC&F) and his team received "**The ISSS- Dr. J.S.P. Yadav Memorial**

Awards for Excellence in Soil Science- 2012” from Indian Society of Soil Science, New Delhi

- Elected **Councilor** of the **Indian Society of Soil Science** for the biennium 2014-15.
- Selected as **President of Bhopal Chapter** of **ISSS** for the biennium 2014-15.
- Acted as **Vice-President of Bhopal Chapter** of **ISSS** for 2011-14.
- Acted as **Secretary of Bhopal Chapter** of **ISSS** for 2009-11.
- Acting as a **scientific reviewer** for processing project proposals under AP-Cess Fund Scheme of ICAR since 2003.
- Acting as a **scientific reviewer** of the **Bioresource Technology**, Journal of Hazardous Materials, Journal of the Indian Society of Soil Science, Agropedology, Legume Research, Annals of Soil and Plant Research and Journal of the Indian Society of Pulse Research and Development since 2003.
- Acting as a member of **Editorial Board** of the **Journal of the Indian Society of Soil Science** since 2011.
- Received **Second Prize** for **Best Poster Presentation** in the 6th Agricultural Science Congress of NAAS at IISS, Bhopal, Feb. 13-15, 2003.
- Received **Third Prize** for **Best Poster Presentation** in the National Seminar of the Indian Society of Agricultural Resource Management at TNAU, Coimbatore during 4-5 July, 2005.
- Received **Best Poster Award** for **poster presentation** at the International Symposium of the Indian Society of Coastal Agricultural Research at Science City, Kolkata during 2007.
- Received the **Best Poster Award** for **poster presentation** of the paper ‘Synthesis of rockphosphate nano-particle and its effect on seed germination of selected crops’ at the International Conference on Nanoscience and Nano-technology (ICONN 2010) at SRM University, Kattankulathur, T.N. during Feb. 24-26, 2010.
- **Best Poster Award** on the research paper entitled “Nano rock phosphate: Synthesis and application to crops” by Tapan Adhikari, S. Kundu, A.K. Biswas, J. C. Tarrafdar and A. Subba Rao (2011) at 4th Bangalore Nano, Bangalore, from 8th to 9th December, 2011.
- Received **Best Paper Award** of Indian Society of Soil science for their research paper entitled “Effect of biochar, FYM and lime on microbial resilience of degraded acid soils under copper stress” by S. Kundu, Vassanda Coumar, J.K. Saha, A.K. Biswas, and K.S Reddy (2011) during 76th Annual Convention held at Dharwad during 16th to 20th November 2011.
- Received the **Best Poster Presentation Award - 2011** for the paper entitled “Phytoextraction of Cr by some floriculture plants” by S.Ramana, A.K.Biswas, A.B.Singh, Ajay and N.K.Ahirwar(2011) at National Seminar of Plant Physiology held during 24-26 November, 2011 in Ramnarain Ruia College, Matunga.
- **Best poster award** for “Soil Phosphorus sorption and release from agricultural land - environmental concern” at 18th convention of Indian Geological Congress & International Symposium on “Minerals and Mining in India-The way forward, inclusive of cooperative mineral -based industries in SAARC countries” by Rashmi I., Biswas AK, Parma VRR and Subba Rao held on 27th -29th April 2013 at MPCOST, Bhopal, Madhya Pradesh.
- **Award for oral presentation** on “Phosphorus adsorption capacity in soybean growing soils of Madhya Pradesh” at Agro Summit on ‘Changing Scenario of Agriculture in Madhya Pradesh: Prospects and Challenges’ Dr.(Mrs.) Rashmi I., Biswas AK, Parma VRR and Subba

Rao held on September 1st & 2nd 2013 at Bhopal, M.P.

10. Publication in numbers (applicable to Scientists):

| | |
|-------------------------------------|----|
| ❖ <i>Research papers:</i> | 77 |
| ❖ <i>Book chapters/Reviews:</i> | 41 |
| ❖ <i>Popular articles:</i> | 14 |
| ❖ <i>Books / Bulletins/Reports:</i> | 26 |
| ❖ <i>Seminar / Symposia:</i> | 60 |
| ❖ <i>Miscellaneous:</i> | 14 |

Ten Best Publications

- Ramesh K, Damodar Reddy D, **Biswas AK** and Subba Rao A (2011). Zeolites and Their Potential Uses in Agriculture. *Adv. Agron.* 113:215-236.
- Ramana S, **Biswas AK**, Singh AB and Yadava RBR (2002) Relative efficacy of different distillery effluents on growth, nitrogen fixation and yield of groundnut. *Biores. Techn.* 81(2): 117-121.
- Ramana S, **Biswas AK**, and Singh AB (2002). Effect of distillery effluents on some physiological aspects in maize. *Biores. Techn.*84: 295-297.
- Ramana S, **Biswas AK**, Saha JK and Yadava RBR (2002) Effect of distillery effluent on germination in some vegetables crops. *Biores. Techn* 82: 273-275.
- Jha P, Lakaria BL, Biswas AK, Saha R, Mahapatra P, Agarwal BK, Sahi DK, Wanjari RH, Lal R, Singh Muneshwar and Subba Rao A (2014) Effects of carbon input on soil carbon stability and nitrogen dynamics. *Agri, Ecos. Env.* 189:36-42. (DOI:10.1016/j.agee.2014.03.019).
- **Biswas AK**, Mohanty, M, Hati KM, and Misra AK (2009). Distillery effluents effect on soil organic carbon and aggregate stability of a Vertisol in India. *Soil Tillage Res.*104:241-246 (DOI: 10.1016/j.still.2009.02.012).
- Hati KM, **Biswas AK**, Bandyopadhyay KK and Misra AK (2007). Soil properties and crop yields on a vertisol in India with application of distillery effluent. *Soil Tillage Res.* 92(1-2): 60-68.
- Jha P, Garg N, Lakaria BL, **Biswas AK** and Subba Rao A (2012) Soil and residue carbon mineralization as affected by soil aggregate size. *Soil Tillage Res.* 121 (2012) 57–62. DOI: 10.1016 /j.still. 2012.01.018.
- Malik Neetu, **Biswas AK**, Qureshi TA, Borana K and Virha Rachna (2010) Bioaccumulation of heavy metals in fish tissues of a freshwater lake of Bhopal. *Environ. Monit. Assess.* 160:267-276 (DOI 10.1007/s10661-008-0693-8).
- Saha JK, Panwar N, Srivastava Ajay, **Biswas AK**, Kundu S and Subba Rao A (2010) Chemical, biochemical and biological impact of untreated sewage water use on Vertisol and its consequences on wheat productivity. *Environ. Monit. Assess.* 161: 403-412 (DOI: 10.1007/s10661-009-0756-5).
