



# INDIAN SOCIETY OF SOIL SCIENCE NEWSLETTER

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*"A nation that destroys its soils destroys itself"* — Franklin Delano Roosevelt

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## 82nd Annual Convention of the ISSS

11-14 December 2017

at Amity University  
Kolkata



*Venue of the Convention*

### Convention Features

- National Seminar on "Developments in Soil Science - 2017"
- The 35<sup>th</sup> Prof. J.N. Mukherjee - ISSS Foundation Lecture
- The 44<sup>th</sup> Dr R.V. Tamhane Memorial Lecture
- Presentation by the Doctoral Research Award Contestants

News, views and critiques for publication in the ISSS Newsletter may please be sent to Dr. D.R. Biswas, Secretary, Indian Society of Soil Science, NASC Complex, Pusa, DPS Marg, New Delhi 110012

## Land and Water Management for Sustainable Intensification of Agriculture : The Government Initiatives



Sustainable intensification of agriculture to meet food, nutritional and environmental security depends heavily on efficient management of land and water. India presently supports 18% of the world's human and 15% livestock population with only 2.4% of the land mass and 4.2% fresh water resource. There is tremendous demographic pressure on finite land and water resources. Post green revolution, there are concerns about sustainability arising from the decline in soil health due to imbalance use of fertilizer, low addition of organic manure and land degradation. The imbalanced fertilizer use in terms of NPK is evidenced by their wider consumption ratios against a desirable one of 4:2:1. The organic carbon content of the Indian soil is inherently low to very low and deficiency of N is widespread. The Nutrient deficiency in the country is in the order of : 95, 94, 48, 25, 41, 20, 14, 8 and 6% for N, P, K, S, Zn, B, Fe, Mn and Cu, respectively. The limiting nutrients do not allow the full expression of other nutrients, thereby, lowering the fertilizer responses and crop productivity. The fertilizer response ratio (kg grain per kg nutrient) decreased nearly by four times (from 13.4 in 1970 to around 3.2 in 2010) in irrigated areas of the country. This is a matter of great concern at the backdrop of low nutrient use efficiency of Indian soils ranging from 30-50% (N), 15-20% (P), 60-70% (K), 8-10% (S) and 1-2% (micronutrients). While the unutilized N are subjected to leaching and denitrification/volatilization loss polluting groundwater and atmosphere respectively, considerable amount of P and K nutrients are lost through the process of soil erosion. It has been estimated that over 5.3 billion tonnes of soil is lost annually through water erosion with a loss of ~8 Mt of plant nutrients (NPK).

Based on latest harmonized data estimates 120.4 Mha of total geographical area of the country is affected by various kinds of land degradation *viz.* water erosion (82.6 Mha), wind erosion (12.0 Mha), chemical degradation (24.7 Mha) and physical degradation (1.0 Mha). Out of total degraded area, 104.2 Mha is arable land. Around 17.36 Mha of arable land of the country is affected by various kinds of chemical degradation with very low productivity ( $< 1 \text{ t ha}^{-1}$ ). This includes about 10.72 Mha suffering from acute soil acidity ( $\text{pH} < 5.5$ ) and around 6.64 Mha are under salt affected soils comprising of 3.64 Mha under high sodicity ( $\text{pH} > 9.5$ ) and about 3 Mha (including 1.25 Mha coastal salinity) are under salinity. While erosion induced loss in crop production in rainfed areas under major cereal, oilseed and pulse crops has been estimated as 13.4 Mt, the crop production loss due to

salinity and alkalinity at the national level has been estimated to be 5.66 and 11.18 Mt, respectively.

Similarly, mismanagement of water resources has resulted in waterlogging and salinity in several canal commands, decline in groundwater table, deterioration of groundwater quality, seawater intrusion in coastal areas, drying up of wet lands and low-flows in streams *etc.* The rising irrigation water demand and low overall irrigation efficiency (around 38%) of the major and medium irrigation projects are of great concerns. Moreover, the anticipated impact of climatic change and climate variability with frequent occurrence of extreme events such as drought and floods may further worsen the water scarcity situation affecting agricultural productivity. Therefore, sustainable land and water resource management in a holistic way is need of the hour aiming at maximizing agricultural land and water productivity.

The Government of India, time to time, through National Agriculture Policy, National Land Use Policy, National Water Policy and National Policy for Farmers emphasized judicious use of land and water resources in agriculture and allied sectors for higher agricultural productivity and profitability in the country.

National Agricultural Research and Education System through institutions of Indian Council of Agriculture Research (ICAR) and State/Central Agricultural Universities is continuously providing requisite technology backstopping to a variety of programmes/schemes being implemented by different Ministries/Departments ranging from single component/commodity based sectoral scheme to area based integrated approach for sustainable management of land and water resources in the country. Indian Institute of Soil Science (IISS) and All India Coordinated Research Projects (AICRPs) on Soil Test Crop Response (STCR), Micro- and Secondary Nutrients and Pollutant Elements (MSNP) and Plants, Long Term Fertilizer Experiments (LTFE) and Network Project on Soil Biodiversity-Biofertilizers are addressing researchable issues related to soil

health and nutrient management in the country.

The Government under the component of soil health management of National Mission on Sustainable Agriculture (NMSA) is promoting soil test based balanced and integrated nutrient management in the country through setting up/strengthening of soil testing laboratories, establishment of biofertilizer and compost unit, use of micronutrients, trainings and demonstrations. Recently, a National Mission on Soil Health Card has been launched to provide soil tested based fertilizer recommendation to all the farmers in the country.

The Govt. of India took a historical policy decision of introduction of Nutrient Based Subsidy (NBS) on N, P, K and sulphur containing fertilizers *w.e.f.* 1.4.2010. Additional subsidy for fertilizers fortified with zinc and boron was paid at the rate of Rs.500 and Rs 300 per tonne, respectively. The Government is also introduced the concept of area and crop specific customized fertilizers for balanced application of NPK fertilizers along with micro- and secondary nutrients. Recently, the Department of Fertilizers, Ministry of Chemicals & Fertilizers has declared subsidy on city compost @ Rs.1500 per tonne in support of government's Swachh Bharat Abhiyan. Besides, The **Ministry of New and Renewable Energy is already implementing** National Biogas and Manure Management Programme which is a Central Sector Scheme of **Biogas Technology Development Division of the Ministry aiming at** setting up of Family Type Biogas Plants at rural and semi-urban/households level for recycling of rural wastes linking sanitary toilets with biogas plants (<http://mnre.gov.in/schemes/decentralized-systems/schems-2/>).

ICAR has recently established National Organic Farming Research Institute (NOFRI) at Tadong, Gangtok (Sikkim). Further, a Network Project on Organic Farming of Horticulture Crops is also started by ICAR with lead centre at ICAR-Indian Institute of Spices Research, Calicut from 2014. The Govt. of India through National Centre of Organic Farming, National Horticulture Mission, Paramparagat Krishi Vikas

Yojana (PKVY) and Mission Organic Value Chain Development for North Eastern Region (MOVC-DNER) is promoting organic farming in the country.

Nearly 2.00 Mha in Indo-Gangetic Plains have been brought under RCTs mainly zero tillage and bed planting through National Food Security Mission (NFSM) and NMSA schemes.

Indian Institute of Soil and Water Conservation (IISWC) has developed several location specific bio-engineering measures to check soil erosion in the country. Similarly, Central Arid Zone Research Institute (CAZRI), Jodhpur has developed sand dune stabilization and shelterbelt plantation technologies to check wind erosion and desertification. The Government under Watershed Development Component of the "Pradhan Mantri Krishi Sinchayee Yojana (WDC-PMKSY)" is implementing location specific soil and water conservation activities based on the technologies developed by these institutes.

The Central Soil Salinity Research Institute (CCSRI), Karnal and All India Coordinated Research Project (AICRP) on Salt Affected Soils has developed reclamation technology, salt tolerant varieties of rice (CSR-30, CSR-36), wheat (KRL-210, KRL-213) and mustard (CS-52, CS-54) and agroforestry interventions for rehabilitation of lands affected by salinity and sodicity. Also, sub-surface drainage and bio-drainage technologies have been developed to improve the productivity of saline waterlogged soils in the country. Similarly, the Council has developed cost effective amelioration techniques *i.e.* liming @ 2-4 q ha<sup>-1</sup> for managing acid soils. The Government under Reclamation of Problem soils (*viz.*, saline, alkali and acid soils) component of National Mission for Sustainable Agriculture (NMSA) is providing assistance @ 50% of cost to the limit of Rs. 60000 per ha for reclamation of alkali/ saline soils and Rs 15000 per ha for amelioration of acid soil.

Indian Institute of Water Management (IIWM), Bhubaneswar, AICRP on Irrigation Water Management and Consortia Research Platform on Water is addressing issues related to judicious use of water ensuring higher crop produc-

tivity in the country. ICAR has developed cost effective, location specific scientific technologies *viz.*, rainwater harvesting and recycling, multiple use of water, conjunctive use of rain, surface and ground-water resources, smart and precision technologies for irrigation and farming practices, optimum irrigation scheduling, resource conservation technologies, development of land drainage and reclamation of problem soils to enhance irrigation water efficiency and water productivity in Indian agriculture.

The government under *Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)* envisages end-to-end solutions in irrigation supply chain, *viz.*, water sources, distribution network, and farm-level applications. The objective of PMKSY is to improve water-use efficiency at the farm-level and bridge the gap between

irrigation potential created and utilization for increasing agricultural production and productivity. The scheme has been formulated by amalgamating ongoing schemes *viz.* Accelerated Irrigation Benefit Programme (AIBP) of Ministry of Water Resources, River Development and Ganga Rejuvenation; Integrated Watershed Management Programme (IWMP) of Department of Land Resources; and On Farm Water Management (OFWM) component of National Mission on Sustainable Agriculture (NMSA) of Department of Agriculture, Cooperation and Farmers Welfare. Presently, the government under the 'Solar Pumping Programme for Irrigation and Drinking Water under Off Grid and Decentralized Solar Applications', is installing solar pump sets in the country in coordination with Ministry of Agricul-

ture, Ministry of Drinking Water and Sanitation and NABARD.

To sum up, it is realized that the relationship between soil and water productivity is symbiotic and it is difficult to get the maximum impact of one without the other. Although Government has made provision of various components related to soil and water management under various schemes run by different Ministries, convergence of natural resource related activities of different schemes/components being run by different Government Departments and matching policy and institutional arrangements are need of the hour so that the farmers should have the easy accessibility of those facilities for adoption.

**S.K. Chaudhari**  
*President, ISSS*

## Eightieth Annual Convention of the Indian Society of Soil Science

The 80th Annual Convention of the Indian Society of Soil Science (ISSS) was held at the University of Agricultural Sciences, Bangalore during December 5-8, 2015. A brief report on the Convention is presented hereunder.

### Inaugural Session

The inaugural session was held on 5 December 2015 at the Kuvempu Sabhangana of the University of Agricultural Sciences, Bangalore. On behalf of the Bangalore Chapter of the ISSS, Dr. M.S. Badrinath, welcomed the delegates and expressed this event as a unique chance for the scientists and researchers to enhance their academic knowledge. Dr. Jagdish Prasad, President, ISSS, extended a warm welcome to the Chief Guest, Sri Ananth Kumar, Hon'ble Union Minister for Chemicals and Fertilizers, Government of India; the Guest of Honor, Sri Krishna Byre Gowda, Hon'ble Minister for Agriculture, Government of Karnataka; Shri Rajeev Chawla, Secretary, Department of

Horticulture, Govt. of Karnataka; Shri N. Manjunatha Prasad, Secretary, Department of Agriculture, Govt. of Karnataka; Dr. H. Shivanna, Vice Chancellor, University of Agricultural Sciences, Bangalore, present in the inaugural ceremony, members of the Council of ISSS, University officials, delegates from all parts of the country; and other distinguished guests. In his presidential remarks, Dr. Jagdish Prasad briefed about the ISSS. He also emphasized that our activities should be reoriented to-

wards more holistic and environmental centric research activities through multidisciplinary approach. Managing soil and landscape on ecozone basis is the need of the hour for sustainable land use planning. He also urged that the agricultural scientists should own the agriculture as our culture and soil as heritage.

Chief Guest, Sri Ananth Kumar, Hon'ble Union Minister for Chemicals and Fertilizers, Government of India presented the Fellowship and various



Dignitaries at the dias on inaugural function of the 80th Annual Convention of ISSS



Lightening of inaugural function of 80th Annual Convention

Awards of the ISSS for 2015. Dr. D.R. Biswas, Secretary read the citations. Honorary Membership of the ISSS, the highest award of the Society, was conferred on Dr. G. Narayanasamy, Former Head, Division of Soil Science and Agricultural Chemistry, IARI, New Delhi in absentia. Dr. A.K. Sarkar, Former Dean, Birsa Agricultural University, Ranchi was awarded the Platinum Jubilee Commemoration Award of the Indian Society of Soil Science-2015. Fellowship of the ISSS was conferred in person on (i) Dr. A.N. Ganeshamurthy, IIHR, Bangalore; (ii) Dr. B.S. Dwivedi, IARI, New Delhi, (iii) Dr. S.K. Singh, BHU, Varanasi and (iv) Dr. C.A. Srinivasamurthy, UAS, Bangalore. Dr. K.K. Bandyopadhyay, was awarded the XII International Congress Commemoration Award. Drs. Rajeev Srivastava and his team, was awarded the ISSS-Dr JSP Yadav Memorial Award for Excellence in Soil Science. Dr. V.R.R. Parama was awarded Prof. Sant Singh Memorial Award for Excellence in Education and Research in Soil Science. Dr. M.C. Meena, IARI, New Delhi was awarded the Golden Jubilee Commemoration Young Scientist Award. A set of publications brought out on the occasion of the inaugural ceremony. Sri Ananth Kumar, Hon'ble Union Minister for Chemicals and Fertilizers, Government of India delivered the inaugural address.

Inaugural function formally came to a close with a vote of thanks by Dr. K.P. Viswanatha, Chairman, Local Organizing Committee, 80<sup>th</sup> Annual Convention of ISSS.

### Special Lectures

During the Convention three special lectures were organized. The 33<sup>rd</sup> Prof. J.N. Mukherjee - ISSS Foundation Lecture was delivered by Dr. D.K. Benbi, PAU, Ludhiana. He delivered this lecture on the topic "*Enumeration of Soil Organic Matter Responses to Land-use and Management*" on 5 December 2015. Dr. S.S. Khanna, New Delhi chaired the session. **World Soil Day - Lecture** was delivered by Dr. J.S. Samra, Former CEO, NRAA on behalf of Dr. Gurbachan Singh, Chairman, ASRB, New Delhi on the topic "*Rejuvenating Soils for Food Security and Healthier Environment*" on 5 December 2015. Dr. J.S. Samra, also Chaired this session. The 42<sup>nd</sup> Dr. R.V. Tamhane Memorial Lecture was delivered on 6 December 2015 by Dr. A.N. Ganeshamurthy, IIHR, Bangalore on the topic "*Sustainable Soil Management Models in Horticultural Systems*". Dr. A.K. Sikka, New Delhi, chaired the session.

### Special symposium on "Soil Health: Concept, Status and Monitoring"

Half-a-day Special symposium on "Soil Health: Concept, Status and

Monitoring" was held on 6 December 2015 with Dr. J.C. Katyal in the Chair, and Dr. B.S. Dwivedi, IARI, New Delhi was the Convener. Speakers in the session included Drs. J.C. Katyal, New Delhi, S.K. Chaudhari, New Delhi, B. Mandal, Kalyani, Vandana Dwivedi, New Delhi and Pradip Dey, Bhopal.

### National Seminar

A National Seminar on 'Developments in Soil Science - 2015' was organized, in which a total of **92** papers in **oral** and **103** papers in **poster** sessions were presented on 5<sup>th</sup> afternoon, 6<sup>th</sup> afternoon and 7<sup>th</sup> December 2015 forenoon. Out of the poster presentations spread over three sessions, following three were selected for the Best Poster Presentation Award:

1. Carbon sequestration potential and dynamics of soil organic carbon labile pool under tropical rice-rice agro-ecosystem – Kamp, Prajnyamayee, Mandal, M., Rout, K.K., Majhi, P., Singh, M.
2. Soil mass-volume: A prime consideration for fertilizer recommendation in physically degraded lands – Vasanthi, B.G., Srinivasamurthy, C.A., Parama, V.R.R.
3. Characterization of salt affected soils in Mailam black of Villupuram district, Tamil Nadu and its relationship with water management – Lalitha, M., Dharumarajan, S., Hegde, Rajendra, Singh, S.K.

### Chapter Activities

Following an encouraging response during the previous years, Chapters of ISSS were invited to display in the form of posters their activities of the preceding one year. These posters remained on display on 5-7 December 2015 with one of the Chapter representatives available for discussion for a limited time fixed each day. The Chapters participating in this programme were: Akola, Bhubaneswar, Dapoli, Delhi, Gwalior, Hisar, Hyderabad, Indore, Ludhiana, Parbhani, Ranchi, Varanasi. Poster presentations were informative, interesting and well laid-out. Visitors appreciated the efforts of the Chapters.

## 80th Annual General Body Meeting

The 80th Annual General Body Meeting of ISSS was held on 6 December 2015. Dr. Jagdish Prasad, President of the ISSS, chaired the meeting attended by **120 members** of the Society. The business of the meeting as per the listed agenda, was transacted. The results of election for filling the offices falling vacant for 2016 and 2017 were announced; Dr. A.K. Patra, Director, Indian Institute of Soil Science, Bhopal was elected Vice President; Dr. K.K. Bandyopadhyay, Principal Scientist, Division of Agricultural Physics, IARI, and Dr. S.K. Singhal, Senior Scientist, Division of Soil Science and Agricultural Chemistry, IARI, New Delhi were elected as the Assistant Secretary and Treasurer, respectively. The 10 Councilors, declared elected were Dr. (Mrs.) Anjali Basumatary, Dr. A.G. Durgude, Dr. P.P. Mahendran, Dr. N.B. Prakash, Dr. Rakesh Kumar, Dr. V.P. Ramani, Dr. Mahendra Sharma, Dr. Vinay Kumar Singh, Dr. Dhanyamraju Srinivas and Dr. Sanjay Srivastava. The members elected were felicitated in the Annual

General Body meeting. In any other matter there were three agendas from Dr. B.N. Swami, Dr. S.S. Kukal and Dr. R.J. Tiwari. After deliberation members unanimously decided that the existing Rules and Regulation depicting the above agendas are working fine and there is no need to change the Rules and Regulations. Dr. Jagdish Prasad delivered the presidential address. The meeting came to a close with a vote of thanks by Dr. K.M. Manjiaiah, Joint Secretary, ISSS.

## Cultural Programme

Cultural programme, performed by the Group Prabhat International, was very marvelous in this technically-rich convention on the evening of 5 December 2015. All the delegates enjoyed and appreciated this programme.

## Concluding Session

The concluding session was held on 8 December 2015 with Dr. Jagdish Prasad, President of the ISSS in the chair. In-depth review of all the special and technical sessions including Special symposium on “Soil Health: Concept,

Status and Monitoring” was made. Members were requested to offer their comments on the several activities carried out during the preceding three days. Members made many useful suggestions. Dr. Nintu Mandal was awarded the ISSS Best Doctoral Research Presentation Award for the year 2015, while the other contestants, namely, Dr. V.P. Bhalerao, Dr. M. Chandrakala, Dr. K.S. Karthika and Dr. D.S. Pable were given Commendation Certificates. Dipa Manik, Amipara Hetal Vallabhbbhai, Abhijit Sarkar and Irene Elizabeth John were awarded the Zonal Award from East Zone, West Zone, North Zone and South Zone, respectively. Dr. J.S. Samra, Former CEO, NRAA, Govt. of India presented award/ commendation certificates. Efforts made by the Members of the Bangalore Chapter in making the Convention a memorable and grand success were highly commended; the delegates gave the standing ovation to the organizers. At the end of the concluding session, the annual convention was declared formally closed by Dr. Jagdish Prasad, President of the ISSS.

## Eighty first Annual Convention of the Indian Society

The 81<sup>st</sup> Annual Convention of the Indian Society of Soil Science (ISSS), the oldest professional body among the various disciplines of agricultural sciences in India was held at Rajmata Vijayaraje

Scindia Krishi Vishwavidyalaya (RVSKVV), Gwalior during October 20-23, 2016. A brief report on the different activities of the society during 2016 are given herewith.

## Inaugural Session

The inaugural session was held on 20<sup>th</sup> October 2016 at the Auditorium,

College of Agriculture, RVSKVV, Gwalior. On behalf of the Gwalior Chapter of the ISSS, Dr. Anil Kumar Singh, Vice Chancellor, RVSKVV, welcomed the delegates and expressed this event as a unique platform for interaction in their domain of contemporary research. Dr. Jagdish Prasad, President, ISSS, extended a warm welcome to the Chief Guest, Shri Radha Mohan Singh, Hon'ble Union Minister for Agriculture and Farmers Welfare, Government of India; the Chairman, Shri Narendra Singh Tomar, Hon'ble Minister for Rural Development and Panchayati Raj, Govt. of India; Dr. Ashok Kumar Singh, Deputy Director General (Agricultural Extension), ICAR, New Delhi; Dr. Anil Kumar Singh, Hon'ble Vice Chancellor, RVSKVV, Gwalior; Hon'ble Past Presidents, ISSS present in the inaugural ceremony, members of the Council of ISSS, University officials, delegates from all parts of the country; and other distinguished guests.



Dignitaries at the dias on inaugural function of the 81st Annual Convention of ISSS



Lightening of inaugural function of 81st Annual Convention



Delegates attending the 81st Annual Convention of ISSS

Chief Guest, Shri Radha Mohan Singh, Hon'ble Union Minister for Agriculture and Farmers Welfare, Government of India presented the Honorary Memberships, Fellowships and various Awards of the ISSS for 2016. Dr. D.R. Biswas, Secretary read the citations. Honorary Membership of the ISSS, the highest award of the Society, was conferred on Dr. J.C. Katyal, former Vice Chancellor, CCSHAU, Hisar and Dr. J.S. Samra, former CEO, National Rainfed Area Authority, New Delhi. Dr. J.C. Tarafdar, Former Principal Scientist and

National Fellow, Central Arid Zone Research Institute, Jodhpur was awarded the Platinum Jubilee Commemoration Award of the Indian Society of Soil Science-2016. Fellowship of the ISSS was conferred in person on (i) Dr. S.S. Kukal, PAU, Ludhiana; (ii) Dr. S.C. Datta, IARI, New Delhi, (iii) Dr. H.S. Thind, PAU, Ludhiana and (iv) Dr. K.M. Manjiaiah, IARI, New Delhi. Dr. Pradip Dey, IISS, Bhopal, was awarded the 12<sup>th</sup> International Congress Commemoration Award. Drs. Pramod Jha and his team, was awarded the ISSS-Dr JSP Yadav

Memorial Award for Excellence in Soil Science. Dr. N.B. Prakash, UAS, Bangalore was awarded Prof. Sant Singh Memorial Award for Excellence in Education and Research in Soil Science. Dr. Sudarshan Kumar Dutta, IPNI, Kolkata was awarded the Golden Jubilee Commemoration Young Scientist Award. A set of publications brought out on the occasion of the Convention were released during the inaugural ceremony. Shri Radha Mohan Singh, Hon'ble Union Minister for Agriculture and Farmers Welfare, Government of India delivered the inaugural address.

### Special Lectures

During the Convention three special lectures were organized. The 34<sup>th</sup> Prof. J.N. Mukherjee - ISSS Foundation Lecture was delivered by Dr. D.D. Patra, Vice Chancellor, BCKV, Kalyani. He delivered the lecture on the topic "*Unravelling Plant-Rhizosphere-Microbe Interactions: An Overview*" on 20<sup>th</sup> October 2016. Dr. D.K. Das, Former Past President ISSS, New Delhi chaired the session. **Special Lecture** was delivered by Dr. J.C. Katyal, Former Vice Chancellor, CCSHAU on the topic "*Climate Smart Agriculture - A Concept for Holistic Management of Natural Resources*" on 20<sup>th</sup> October 2016. Dr. G. Dev, Former Past President ISSS, chaired this session. The 43<sup>rd</sup> Dr. R.V. Tamhane Memorial Lecture was delivered on 21<sup>st</sup> October 2016 by Dr. Pradeep K. Sharma, Vice Chancellor, Jammu on the topic "*Nutrient - Water Management for Sustainable Soil Health and Crop Productivity*". Dr. J.S. Samra, Ex CEO, National Rainfed Area Authority, New Delhi, chaired the session.

### Special symposium on "*Sustainable Pulse Production: from Less for More*"

Half-a-day **Special symposium on "*Sustainable Pulse Production: from Less for More*"** was held on 21<sup>st</sup> October 2016 with Dr. S.K. Chaudhari, Assistant Director General (SWM), ICAR, New Delhi in the Chair, and Dr. A.K. Patra, Director, IISS, Bhopal was the Convener. Speakers in the session included Drs. S.K. Chaudhari, New Delhi, A.K. Patra, Bhopal, S.K. Ambast, Bhubaneswar, B.B. Singh, New Delhi.

## National Seminar

A National Seminar on 'Developments in Soil Science - 2016' was organized, in which a total of 103 papers in oral and 143 papers in poster sessions were presented on 20<sup>th</sup> afternoon, 21<sup>st</sup> afternoon and 22<sup>nd</sup> October 2016 forenoon. Out of the poster presentations spread over three sessions, following three were selected for the **Best Poster Presentation Award**:

1. Effect of tillage and residue retention practices on soil temperature and wheat yields. Kaur, Amandeep; Singh, Meharban; Kukal, S.S.
2. Effect of diatomite (DE) as silicon (Si) source under cropped and non-cropped condition of wetland rice. Sandhya, K.; Prakash, N.B.; Yogananda, S.B.
3. Characterizations, classification and evaluation of soils developed from different parent materials in semi-arid region of Srikalahasthi mandal in Chittoor district, Andhra Pradesh. Naidu, M.V.S.; Manikhomba Singh, K.S.H.

## Chapter Activities

Following an encouraging response during the previous years, Chapters of ISSS were invited to display in the form of posters their activities of the preceding one year. These posters remained on display on 20-23 October 2016 with one of the Chapter representatives available for discussion for a limited time fixed each day. The Chapters participating in this programme were: Akola, Bangalore, Delhi, Gwalior, Hyderabad, Indore, Jorhat, Ludhiana and Ranchi. Poster

presentations were informative, interesting and well laid-out. Visitors appreciated the efforts of the Chapters.

## 81<sup>st</sup> Annual General Body Meeting

The 81<sup>st</sup> Annual General Body Meeting of ISSS was held on 21 October 2016. Dr. Jagdish Prasad, President of the ISSS, chaired the meeting attended by 121 members of the Society. The business of the meeting as per the listed agenda, was transacted. The proceedings of the 80<sup>th</sup> Annual General Body Meeting held on 6 December, 2015 at Bangalore, were considered and confirmed by the house. Dr. D.R. Biswas, Secretary presented the Annual Report of the Society for the period October 2015 – September 2016; it was adopted by the house. The audited statement of the accounts for the year ended 31 March 2016 and budget estimates for 2017-2018 were presented by Dr. S.K. Singhal, Treasurer; these were adopted by the house after some discussion and clarifications. The results of election for filling the offices falling vacant for 2017 and 2018 were announced; Dr. S.K. Chaudhari, ADG (SWM), ICAR was elected President; Dr. A.K. Shukla, Project Coordinator, Indian Institute of Soil Science, Bhopal was elected Vice President; Dr. D.R. Biswas, Principal Scientist, SSAC, IARI, and Dr. K.M. Manjaiah, Principal Scientist, SSAC, IARI, New Delhi were elected as the Secretary and Joint Secretary, respectively. The 10 Councillors, declared elected were Dr. P. Balasubramaniam, Dr. U.P.S. Bhadauria, Dr. Debashis Chakraborty, Dr. O.P. Choudhary, Dr. Rita Dahiya, Dr. Krishnendu Das, Dr. Amlan Kumar Ghosh, Dr. Kuntal Mouli Hati, Dr.

Prakash Ramrao Kadu and Dr. S. Sridevi. Dr. Jagdish Prasad delivered the presidential address. The meeting came to a close with a vote of thanks by Dr. K.M. Manjaiah, Joint Secretary, ISSS.

## Cultural Programme

Cultural programme, performed by the Cream Star Entertainment Group, was very marvelous in this technically-rich convention on the evening of 20<sup>th</sup> October 2016. All the delegates enjoyed and appreciated this programme.

## Concluding Session

The concluding session was held on 22<sup>nd</sup> October 2016 with Dr. Jagdish Prasad, President of the ISSS in the chair. In-depth review of all the special and technical sessions including Special symposium on "*Sustainable Pulse Production: from Less for More*" was made. Dr. Trisha Roy was awarded the ISSS Best Doctoral Research Presentation Award for the year 2016, while the other contestants, namely, Dr. P. Geetha, Dr. Tapan Gorai, Dr. M.R. Mayadevi and Dr. Deepak Gangadhar Padekar, Dr. Anuradha Kailasrao Pawar and Dr. Pritpal Singh were given Commendation Certificates. Anandkumar Naorem, Chavan Ritesh Satish, Siddhartha Sankar Biswas and B.R. Iniyalakshmi were awarded the Zonal Award from East Zone, West Zone, North Zone and South Zone, respectively. Dr. J.S. Samra, Former CEO, NRAA, Govt. of India presented ISSS Best Doctoral Research Presentation Award. Dr. A.K. Singh, Vice Chancellor, RVSKVV presented the commendation certificates and zonal award.

## Awards/Recognitions to Society Members

**Dr. V. K. Kharche**, Associate Dean and Professor of Soil Science, College of Agril. Nagpur was awarded Mrudhgandh award for his contribution in research and extension in Soil Science in Maharashtra state given by Parbhani Chapter of Indian Society of Soil Science, VNMKV, Parbhani.

**Dr. K. Jeevan Rao**, Professor and University Head, Department of SSAC, College of Agriculture, Rajendranagar, PJTSAU, Hyderabad elected as Member of Executive Council of Telangana State Academy of Sciences for the years 2015-2017.

**Dr. Amitava Rakshit** have been selected as fellow of the Society of Earth Scientist in 2015 for his contribution towards

popularizing the importance of earth sciences within the society.

**Dr. Ch. Srinivasa Rao**, Director, ICAR-CRIDA, Hyderabad (i) nominated as a member of Board of International Dryland Development Commission, (IDDC), Cairo, Egypt; (ii) elected as President of the Indian Society of Dryland Agriculture and Development for the period of 2016-2018; and (iii) joined

as Director, ICAR-National Academy of Agriculture Research Management, Hyderabad *w.e.f.* 28th April, 2017.

**Dr. Ashok Kumar Singh**, Assistant Professor, Agricultural Chemistry and Soil Science, S.M.M. Town P.G. College, Ballia was selected as Fellow of the Indian Society of Agricultural Biochemists.

**Dr. Ranjan Bhattacharyya**, Senior Scientist, CESCRA, Indian Agricultural Research Institute, New Delhi (i) received the Recognition Award from the Society for Nature Conservation, New Delhi in December 2016; (ii) selected as a Fellow of the West Bengal Academy of Science & Technology, Kolkata, W.B. in December 2016; and (iii) chosen as a Fellow of the Royal Geographical Society, London, UK in March 2016.

**Dr. K.K. Bandyopadhyay**, Principal Scientist, Division of Agricultural Physics, Indian Agricultural Research Institute, New Delhi (i) received Dr. K.G. Tejwani Award of Indian Association of Soil and Water Conservationists for the biennium 2014-15 for Natural Resource Management and (ii) elected as

fellow of National Academy of Agricultural Sciences in 2016 for his contribution towards Natural Resources Management.

**Dr. D.R. Biswas**, Principal Scientist, Division of Soil Science and Agricultural Chemistry, Indian Agricultural Research Institute, New Delhi was awarded with IARI Best Teachers Award during the 58<sup>th</sup> Convocation of Indian Agricultural Research Institute, New Delhi in 2016.

### Foreign Visits

**Dr. Ch. Srinivasa Rao**, Director, ICAR-CRIDA, Hyderabad has attended United Nations Climate Change Conference and 42<sup>nd</sup> SBSTA at Bonn, Germany during 1-11<sup>th</sup> June, 2015 as a part of Indian delegation.

**Dr. Jagdish Prasad**, Principal Scientist & In-Charge Head, Division of Soil Resource Studies, ICAR-National Bureau of Soil Survey and Land Use Planning, Nagpur and President, Indian Society of Soil Science, attended 12<sup>th</sup> International Conference of The East and Southeast Asia Federation of Soil Science Societies (ESAFS2015) on Rational Utilization

### Editor's Note

On behalf of all the members of ISSS, I extend my gratefulness to Dr. S.K. Chaudhari, President ISSS for his lead article titled "Land and Water Management for Sustainable Intensification of Agriculture : The Government Initiatives". I place on record my personal gratefulness to all the gestures that enabled us to make the Newsletter informative and interesting. The next issue of the newsletter will be published electronically in September 2017. Please send any news, general interest items, etc. to the Society office (iss1934@gmail.com). Cooperation from all concerned is solicited to make the Newsletter regular and informative.

K.K. Bandyopadhyay

of soil Resources for Sustainable Development from September 18-21, 2015 held at Nanjing China (FAO sponsored). Dr Prasad presented the activities of Indian Society of Soil Science and chaired one of the sessions "Asia Soil Informatics" on day 1. He also attended ESAFS Business Meeting and field trip for profile study.

### Chapter Activities

**Akola Chapter of ISSS** and Department of Soil Science and Agricultural Chemistry organised State Level Seminar on "Soil and Water Quality : A Concern" at Dr. PDKV, Akola during November 2-3, 2015 on the auspicious occasion of "International Year of Soil-2015".

**Hyderabad Chapter of ISSS** organized a guest lecture on 21 August 2015 as a part of IYS 2015 celebrations and a poster session was also organized. Dr. Y. Muralidharudu delivered the lecture on "Increasing nutrient use efficiency in soils and crops". Dr. P.C. Rao, Dean of PG Studies, PJTSAU chaired the session and Dr. K. Jeevan Rao, President, Hyderabad Chapter ISSS and Professor and University Head, Department of SSAC presided over the meeting.

**Ranchi Chapter of ISSS** and Department of Soil Science and Agricultural Chemistry, BAU, Ranchi jointly organized World Soil Day celebration at RAC Auditorium, BAU on 5 December 2016. Secretary (Agril) and Vice Chancellor, BAU, Dr Nitin Madan Kulkarni was the chief guest on the occasion.

### Memorial lectures organized by different Chapters of ISSS during 2015

Memorial lecture	Organizing chapters	Speaker	Delivered on
Dr. SP Raychaudhuri	Nagpur	Dr. B.B. Mishra	19-10-2015
Dr. DP Motiramani	Jorhat	Dr. Kunal Ghosh	11-09-2015
Dr. BV Mehta	Varanasi	Dr. R.K. Rattan	02-01-2016
Dr. NS Randhawa	Pantnagar	Dr. A.K. Sharma	29-09-2015
Dr. RS Murthy	Kalyani	Dr. Buddheswar Maji	04-09-2015
Dr. RR Agarwal	Delhi	Dr. Bijay-Singh	30-10-2015
Dr. TD Biswas	Cuttack	Dr. Bhabani Sankar Das	17-08-2015
Prof. SK Mukherjee	Kolkata	Dr. D.L.N. Rao	08-10-2015
Dr. GS Sekhon	Dharwad	Dr. P.S. Minhas	12-12-2015
Dr. NP Datta	Ludhiana	Dr. P.K. Khanna	03-11-2015
Dr. S.N. Saxena	Udaipur	Dr. B.N. Swami	07-10-2015

### Memorial lectures organized by different Chapters of ISSS during 2016

Memorial lecture	Organizing chapters	Speaker	Delivered on
Dr. SP Raychaudhuri	Rahuri	Dr. Tapas Bhattacharyya	20-08-2016
Dr. DP Motiramani	Anand	Dr. Subhendu Bhadraray	11-08-2016
Dr. BV Mehta	Ranchi	Dr. Muneshwar Singh	27-09-2016
Dr. NS Randhawa	Bhopal	Dr. S.K. Patil	27-08-2016
Dr. RS Murthy	Bangalore	Dr. M. Velayutham	26-08-2016
Dr. RR Agarwal	Sriniketan	Dr. S.K. Pattanayak	02-09-2016
Dr. TD Biswas	Indore	Dr. R.B. Sharma	28-09-2016
Prof. SK Mukherjee	Delhi	Dr. S.C. Datta	05-11-2016
Dr. GS Sekhon	Hyderabad	Dr. A. Subba Rao	07-09-2016
Dr. NP Datta	Parbhani	Dr. P. Chandrasekhar Rao	27-09-2016
Dr. S.N. Saxena	Karnal	Dr. S.K. Singh	29-09-2016