SOIL AND WATER CONSERVATION Today

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In this issue

International Decade of Soils 2015-2024

From The President's Desk

The earth provides us with everything we need to grow and live healthy lives, in the form of natural resources. These resources are land, water animals and plants. We can't grow food without water and soil, and we will have a much harder time growing enough healthy and nutritious food, if the water we have is polluted and the soil has been stripped off all the rich minerals that make it fertile. If we want to be able to continue to grow enough sage and nutritious food for everyone on the planet we have to protect our natural resources.

Climate resilient agriculture means the incorporation of adaption, mitigation and other practices in agriculture which increases the capacity of the system to respond to various climate related disturbances by resisting damage and recovering quickly and ensuring sustainable production. In short, it is the ability of system to bounce back. Climate resilient agriculture includes in-built property in the system for the recognition of a threat that needs to be responded to and also the degree of effectiveness of the response. Climate resilient agriculture will essentially involve judicious and improved management of natural resources, namely land, water, soil and genetic resources through adoption of best practices, appropriately integrated and timely management of farming systems and farm mechanization.

One of the biggest issues related to climate change is the food security. The world's poorest, many of whom are farmer, fishers and pastoralists, are being hit hardest by higher temperatures and an increasing frequency in weather-related disasters. The global population is growing steadily and is expected to reach 9.6 billion by 2050. To meet such a heavy demand, agriculture and food system will need to adapt to the adverse effect of climate change and become more resilient, productive and sustainable. This is the only way that we can ensure the well-being of the ecosystem and rural population and reduce green house gases (GHG) emissions. Growing food in a sustainable way means adopting practices that produce more with less in the same area of land and use natural resources wisely. It also means reducing food losses before the final product or retail stage through a number of initiatives including better harvesting, storage, packaging, transport,

infrastructure, market mechanisms, as well as institutional and legal frame works.

FAO is calling on countries to address food and agriculture in their climate action plans and invest more in rural development and strengthen the resilience of small farmers to guarantee food security for the world's increasingly hungry population and reduce emission of green house gases (GHG).

The negative impact of climate change on natural resources, from declining global water supplies, and quality to soil degradation, underlines the increasing important of using these resources sustainability. Good soil and forestry management, for example, can lead to the natural absorption of CO_2, thereby decreasing GHG emissions. Over 33% of food produced worldwide is lost and / or wasted. That amounts to about 1.3 billion tonnes per year. Methane is estimated by rotting food and is 23 times more potent than CO_2. Deforestation and forest degradation account for an estimated 10 - 11% of global GHG emissions.

Climate-smart agriculture (CSA) is an approach that helps to guide actions needed to transform and reorient agricultural systems to effectively support development and ensure food security in a changing climate. CSA aims to tackle three main objectives: sustainably increasing agricultural productivity and incomes; adapting and building resilience to climate change; and reducing and / or removing GHG emission, where possible.

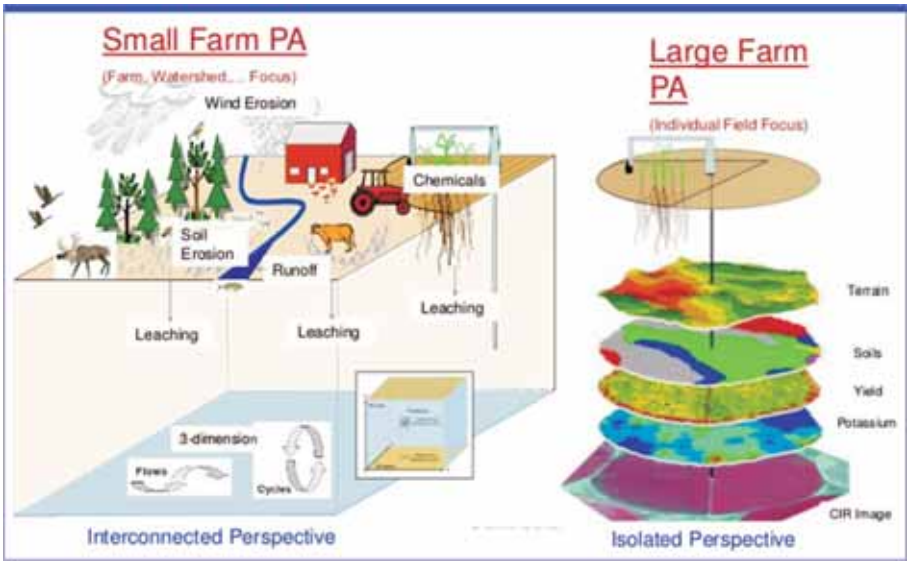
CSA is an approach for developing agricultural strategies to secure sustainable food security under climate change. CSA provides the means to help stakeholder from local to national and international levels identify agricultural strategies suitable to their local conditions. It is in line with FAOs vision for sustainable food and agriculture and supports forestry and fisheries more productive and more sustainable.

Precison Farming

R.D. GUPTA

Application of agriculture inputs at uniform rates across the fields without due regards to infield variation in soil fertility and crop situations does not produce desirable results in terms of crops productivity. The management of infield variability in soil fertility and crop conditions for ameliorating the crops production and productivity, and to minimize the environmental impact is the crux of the "Precision Farming". Precision farming lends itself to most of the agricultural applications and can be implemented at whatever levels are to be required. Precision farming is based upon information technology which enables the producer to collect the information and data for the better decision making. Thus, it is a protective approach that reduces some of the risks and variables which are very common to agriculture. It is more environmentally sound and becomes an integral part in sustaining natural resources.

"Precision farming also known as prescription farming or site specific farming is generally known as a newly emerged development is generally known as a newly emerged development agriculture technological management system". It embodies the convergence of bio and agricultural technologies with space and information. In precision farming all the technologies developed by the State Agricultural Universities, ICAR Institutes and State Departments of Agricultural and formulated as agronomic practices or package of practices have to be followed in right time, in smart farming site specific management and spatially variable farming. Thus, precision farming is regarded as one of the most specific and modern approach which is mainly concerned with the management of variability in the dimension of space and time. It is characterized by the convergence of biotechnology vis-à-vis agriculture technology having space and information.



Concept of Precision Farming

The concept of precision farming offers the promise of increasing the agricultural

productivity while decreasing the production cost and lowering down the environmental impacts. Transferring conventional principles and tools of precision farming (site specific soil management with a number of sophisticated techniques like Global Positioning System (GPS), Geographic Information System (GIS) and computer aided treatment, design and application) remain a challenge in the Indian Context, where marginal and small farms and resource poor farmer's dominate. There is great need to develop friendly soil test kits and decision support aids. It is also essential to build farmers capacity to adopt and utilize these test kits and decision making support aids in the soil fertility management of the fields.

In pursuance of the aforesaid goal development of decision support software (which imbibes a fertilizer recommendations programme based upon soil series and soil testing) will be necessary. Working with technology transfer agents, soil scientists are required to work for soil mapping and development matching training modules to empower to those engaged village agriculture business and agriculture management services. There is a greater need to adopt tailor made location specific based technology package with inbuilt risk distribution. Efforts must be made towards integrated approach to enhance better utilization of rain fed areas which accounts for about 70% of the cultivated land and can play a key role in meeting future food requirement. Striving to convert these grey areas into green belts would from the very base of Ever-Green Revolution.

Need for Precision Farming

The post green revolution in India is characterized with the problems of either stagnation in food grains production particularly in rice and wheat or their decrease in production. In this context, there is need to convert Green Revolution into an Ever Green Revolution. Since precision farming means tailoring the soil and crop management carefully to fit the different conditions found in each field, so it can assist to serve the above said purpose.

Aims and Objectives

The main aim of precision farming is to achieve the quantum jump in agricultural productivity which will help in doubling farmer's income by 2022, reduce cost of cultivation and to diversify agricultural system. It is restored with the below mentioned objectives:-

- To increase the production efficiency of various crops.
- To improve the quality of agricultural produce or product.
- To reduce the ecological degradation caused by the agriculture and allied sectors.
- To protect the soil and water from being contamination caused by intensive use of inputs like fertilizers and pesticides.
- To make more efficient use of inputs like seed fertilizers and pesticides.
- To conserve energy.

Components of Precision Farming

The main components of Precision farming are: i). Computer, ii). Global positioning system, iii). Geographic information system and iv). Sensors.

This is high time to go for precision farming to safeguard and manage the natural resources and to optimize crop yields with less inputs as the aim for near future is to double the farmers income.

Dr Satya Prakash received Award

Dr. Satya Prakash, PC, KVK Saharanpur and Joint Secretary, SCSI received the Pandit Deen Dayal Upadhyay Rashtriya Krishi Vigyan Protsahan Puraskar (Zonal Award) for KVK, Saharanpur conferred by Shri Radha Mohan Singh, Union Minister of Agriculture and Farmers Welfare during Krishi Unati Mela held at ICAR- Indian Institute of Agriculture Research, New Delhi during 15-17 March, 2017.

Award for Dr Rajan Bhatt, Councillor

Dr. Rajan Bhatt, Councillor, SCSI from the Punjab bagged the "BEST THESIS AWARD-2017" from the Samagra Vikas Welfare Society for his Ph.D. research work entitled "Soil water dynamics and water productivity of rice-wheat system under different establishment methods". He is also recognized as the first to work on the Soil moisture dynamics during the intervening periods of rice-wheat cropping sequence at global level. Award was conferred on him at the occasion of International seminar on Agriculture & Food for inclusive Growth and Development during 14-15 January, 2017 at NBRI, Lucknow. Dr. Bhatt published 8 research and 2 review papers from his doctorate research and has been awarded Student Incentive Award by SCSI.

Proceedings of the 1st Asian conference on Water and land management for food and livelihood security

January 20-22, 2017, Raipur, Chhattisgarh, India

The 1ST Asian Conference on Water and Land Management for Food and Livelihood Security was organized by Soil Conservation Society of India during January 20-22, 2017 at Indira Gandhi Krishi Vishwavidyalaya, Raipur. More than 200 delegates attended the three days conference which included Researchers, Scientists, Engineers, Planners, Economist, Decision makers, NGO's, entrepreneurs, students, farmers and other stake holders.

The 1st Asian Conference was inaugurated by Sushri Uma Bharti, Hon'ble Union Minister, Ministry of Water Resources, River Development and Ganga Rejuvenation, Govt of India, New Delhi on 20th January 2017 as Chief Guest. Dr Raman Singh, Hon'ble Chief Minister, Govt. of Chhattisgarh presided over the inaugural function. During the inaugural programme, Shri Brijmohan Agrawal, Hon'ble Minister, Department of Agriculture, Water Resources, Govt of Chhattisgarh, Shri Ramesh Bais, Member of Parliament, Raipur, Shri Tokhan Sahu, Parliamentary Secretary, Govt of Chhattisgarh, Dr Brij Gopal, Coordinator, Dr Suraj Bhan, President, Soil Conservation Society of India, New Delhi, Shri Ajay Singh, IAS, Additional Chief Secretary and Agricultural Production Commissioner, Govt of Chhattisgarh and Dr. S. K/ Patil, Hon'ble Vice Chancellor, IGKV, Raipur were the Guest of Honour. Dr Vinay K Pandey, Dean, Agri. Engg., IGKV Organizing Secretary welcomed the guests.

Dr S K Patil, Vice Chancellor, IGKV, Raipur and Patron of the Seminar felicitated the Hon'ble Chief Guest, Chairman and Guests of Honour. Two publications namely **"Souvenir"** and a book entitled "**Water and Land Management for Food and Livelihood Security"** were released on the occasion. The session ended with the vote of thanks proposed by Dr. Vinay K Pandey, Dean, Faculty of Agricultural Engineering, IGKV, Raipur.

Details of the 1st Asian conference, Raipur

TECHNICAL SESSION – I: LATE PROF. J. S. BALI MEMORIAL LECTURE

The first technical session on "Prof J. S. Bali Memorial Lecture" delivered by Dr. A.K. Singh, Hon'ble Vice Chancellor, RVSKV, Gwalior. The session was chaired by Prof. Rajendra Kumar, DG, UPCAR who emphasized upon the need of water and land management in India as a whole and in Chhattisgarh in particular. Co-chairman Dr. Sanjay Arora elaborated on the contributions of Prof. J.S. Bali to the society who was the founder member of the society.

Dr A.K. Singh in his lecture emphasized importance of improved seed tolerant to abiotic & biotic stress, water, fertilizer and plant protection measures which were the pillars of green revolution. The higher productivity by consuming less quantum of water with higher fertilizer use efficiency is urgent call for today's agriculture. He estimated average soil loss in India is about 16.4 t/ha/yr. He focused various management options for reclamation of degraded land by implementing modules on diversified cropping system, agri – horticulture, horti-pasture, silvi-medicinal etc. Crop technology for maximization of carbon sequestration are also required by conservation tillage, cover cropping and much farming, green manuring and INM and (RMP).

Regarding land use policy he said an effective land use policy needs to be evolved by each State Government to facilitate earmarking of areas not suitable for farming because of their limitations of ecologically fragile nature, and therefore can alternatively be used for agro-forestry/forestry/range lands. Delineation of prime agriculture land is a must, so that the best agricultural land is not diverted for non-agricultural purposes for which inter-ministerial dialogue at central level is needed. Different management strategies were given by Dr. Singh for efficient water management in India. He also highlighted different strategies for sustainability of crop production particularly identification of cropping/farming systems with enhance water productivity, fine tuning of raised bed and furrow irrigation systems for different crops and soil, development of low cost pressurized irrigation systems with crop specific fertigation schedules for enhancing nutrient use efficiency, safe use of agrochemicals, development of cost effective and ecofriendly technologies for sustainable agricultural produce of completive quality and use of modern tools for developing cultivars of higher water productivity/nutrient extraction efficiency. The Chairman concluded the session with the closing remark highlighting the different strategies discussed by Dr A K Singh for proper management of land and water which is more crucial in India with respect to sustainability in Indian agriculture. Mrs. Lavaniya Sinha, daughter of late Prof. J.S. Bali was present on the occasion.

TECHNICAL SESSION – II: WATER AND LAND RESOURCES MANAGEMENT

The second technical session started with remarks of Dr. D.K. Marothia, Member Planning Commission, Government of Chhattisgarh as Chairman and Dr. M.S. Rathore, CEDS, Jaipur (Rajasthan) as Co-Chairman of the session. In this session presentations from diverse fields of Water and Land Resources Management presented their work. The lead presentations were made by Dr. P. Indira Devi, CEEE, KAU, Thrissur (Kerala), Dr. S.K. Ambast, Director, IWMI, Bhubaneshwar (Orissa), Dr. B.C. Mall, Vice-Chancellor, JIS University, Kolkatta (WB) and Dr. M.P. Thakur, DES, IGKV, Raipur (CG).

The recommendations of the session were:

- The rapid changes in land use pattern, conservation of water bodies and wetlands, sand mining from rivers and other exploitative activities have adversely affected the ground water recharge functions. This has lead to the water table decline/ drying up of almost 48 per cent of open wells.
- Hydrological aspects provide vital information about the land uses changes and water scarcity experienced around the wetlands.
- Payment towards environmental services associated with wetlands should be included in policy making.
- Water an increasingly scarce resource, particularly in the changing climate scenario, thus is important to understand the concept and utility of water productivity at field, system and basin level.
- Benchmark information on water productivity may be useful to assess the scope of water productivity improvement by different improvement interventions.
- Technological interventional i.e. conjunctive use of waters, precision land levelling, deficit irrigation, alternate cropping system, diversified land use and multiple use of water may help in improving water productivity in rainfed and irrigated areas.
- Multiple uses of water in many irrigation systems have many productive and non-productive uses.
- Aquaculture is a water-dependent activity can be managed through inducing in the sectoral policy.
- Aquaculture practices like pen or cage culture can be adopted within the canal command.
- Ambika paddy weeder gave maximum weeding efficiency as compared to Cono weeder and power weeder.
- Paddy transplanter was found suitable for planting of rice seedlings in Chhattisgarh.
- Paddy drum seeder is also found suitable for sowing of paddy as compared to other traditional methods.

TECHNICAL SESSION – III: GROUNDWATER EXPLORATION, RECHARGE AND RIVER MANAGEMENT

This technical session was chaired by Dr. R. K. Sahu, Dean, Faculty of Agricultural Engineering, IGKV, Raipur.

The recommendations of the session were:

- SRI technique for conserving water in paddy cultivation
- Status of water resources and water deficit analysis needs to be done before planning
- Canal water productivity needs to be prioritized in canal commands.
- Drip and sprinkler system needs wider promotion.
- aquaculture engineering for pond design vis-a-vis watershed management and farm pond technology is efficient in conserving water resources.

TECHNICAL SESSION – IV: PROCESS & FOOD TECHNOLOGY AND FARM MECHANIZATION INTERVENTIONS FOR FOOD AND LIVELIHOOD SECURITY

The session started with the remarks of Prof. Gajendra Singh, Former VC & Ex DDG (Engg), ICAR and Chairman of the session. The session was Co-chaired by Dr Nawab Ali, Ex DDG (Engg), ICAR, New Delhi. In this session total seven presentations from different fields of Process & Food Technology and Farm Mechanization Interventions for Food and Livelihood Security were presented.

The recommendations of the session were:

- Need of identifying crops which have higher nutritional productivity per unit of land, water and energy and based on this a nutritional balanced diet could be designed through fortification and extrusion.
- Enterprises for collection, sorting, packaging and storage of vegetables/fruit by SHGs to reduce post harvest losses.
- Bio-industrial approach with establishment of fruit/vegetable processing industry in the production catchment areas.
- Food processing sector connects agriculture and industry and this industry is unorganized and very low processing levels needs attention.
- Dry seeded rice technology can get advances by 10-15 days and so second crop can be possible to grow.
- A modification in traditional biasi operation by doing biasi operation through power tiller through modified cage wheel of power tiller is effective.
- The efficient rice stubble management through integration of

suitable farm implements and use of organic manure for rice crop.

- The used of animal drawn rotary blade puddler over the other animal drawn puddling equipments needs to be recommended.
- The used of power tiller having cage wheel of diameter 73 cm and 45" lug angle with tines is best suitable for biasi operation for higher production.
- Use of smaller sized cold storage, multi temperature sections within large cold storage for different commodities, availability of uninterrupted electric supply etc. form more adaptability.
- For getting higher price to farmers/growers of their produce, a price regulatory body from production to consumption should be developed.

TECHNICAL SESSION – V: MEASURES FOR IMPROVING LAND PRODUCTIVITY AND WATER QUALITY

This technical session was Chaired by Dr T B S Rajput, IARI, New Delhi and Co-chaired by Dr Pramod K Pandey, USA. The session started with the remarks of Dr. T B S Rajput, IARI. In this session total three presentations from different fields of land productivity and water quality were presented.

The recommendations of the session were:

- Models developed for bacterial contamination in river system & potential public health hazards needs to be evaluated.
- Vermicoposting as the cost effective method for soil fertility management
- Waterborne pathogens affect different land cover and also affect water quality.

TECHNICAL SESSION – VI: AGRICULTURAL DROUGHT AND GEOSPATIAL TECHNOLOGY FOR NATURAL RESOURCES MANAGEMENT

The session was Chaired by Dr K. Yella Reddy, Director, WALAMTARI, Hyderabad and Co-chaired by Dr. Subhasis Dutta, Professor and Head (Civil Engg.), IIT Guwhati. The session started with the introductory remarks of Dr. Y Yella Reddy. In this session total five presentations were presented.

The general outcomes of the session were:

- New fusion techniques for hyper-spectral and multispectral data of plot scale variability mapping
- Hyper-spectral remote sensing for rice biophysical parameters like leaf nitrogen content, chlorophyll, water stress is effective.
- The critical wavelengths that need to be monitored for crop stress study have been identified.
- Need of prioritization of critical watershed and development of land and water management plan. Saaty's AHP multi criteria decision analysis was adopted for the prioritization of critical watershed.
- The cadastral level (*Khasra level*) land use plan will be a boon to the local farmers as they can have advisories based on the condition and health of their land holding.
- With the help of National Climate Environment Protection data the evaluation of snow cover was done using SWAT hydrological model.
- Morphometric analyses of critical watershed is important for management.

TECHNICAL SESSION – VII

The seventh technical session was on Water and land productivity in agriculture and Chaired by Dr. R.S. Tripathi, Ex Dean and DRS, IGKV, Raipur (C.G.) and Co-chaired by Dr. N.P. Patil, Head, Deptt. of Water and Land Management, Dr. BAMU, Aurangabad (M.H.).

The recommendations of the session were:

- In crops like cotton, WUE can be increased by reducing length of border to avoid high recession in initial stage of border.
- Higher crop productivity in canal command area is higher where irrigation project is located.
- Bio engineering measures are recommended for red lateritic soil for better soil and water conservation in sloping land of eastern ghats of Odisha
- Nano Fe for seed priming improves seed germination.
- Convergence of nano-technology with biotechnology, information technology and cognitive science in future, has the capacity to reshape social, economic, and technological landscapes.
- Prediction of saturated hydraulic conductivity using soil properties employing regression models is useful
- Management practices like organic & INM, raised bed with plastic mulching were most effective for enhancing availability of soil P with plant growth in groundnut crop.

TECHNICAL SESSION – VIII : WATERSHED MANAGEMENT

The eighth technical session was Chaired by Dr. D. M. Denis, Dean, CAET, Allahabad and Co-chaired by Dr. K.S. Reddy, Pr. Scientist, CRIDA, Hyderabad. In this session nine oral presentations were made.

The recommendations of the session were:

- Need to improve WUE through management of damaged structures, improve maintenance and avoid over irrigation.
- Policy implementation is required for issues like farm pond with poly lining with provision of solar pump along with micro irrigation system.
- Small pond for recharge and fish culturing is important for small and marginal farmers.
- The 3.67 mha of ravine land in India, is unproductive and bamboo plantation, peripheral bund technology, stabilization of ravine/ gully heads and seepage control measures are effective for controlling the erosion and rehabilitation of these lands.

TECHNICAL SESSION – IX: WATER AND LAND PRODUCTIVITY IN AGRICULTURE- II

This technical session was on Water and Land Productivity in Agriculture-II and Chaired by Dr. Anshuman Kohli, Assoc. Professor, BAU, Bihar and Co-chaired by Dr. Mukesh Kumar, Asstt. Professor, IGNOU, New Delhi. In this session total four presentations were presented.

The recommendations of the session were:

- Emphasis on the need of in situ soil moisture conservation in rainfed areas under changing climate.
- Sub soiling and basin listing were effective in increasing groundnut yield
- Mechanical intervention of tillage with sub soiling up to 50cm was effective in mitigating the effect of prolonged dry spell in ground nut crop under alluvial soil.
- Need for afforestation in erosion prone areas especially hilly tracts.
- Soil test based fertilizer application, use of LCC for urea application, judicious use of water resources by underground pipeline system & micro-irrigation, mulching, laser leveling of land, rainwater harvesting and use of tractor operated seed-cum-fertilizer drill for higher productivity of wheat in submontane region
- Wheel hand hoe for efficient weeding and moisture conservation for rainfed crops is suitable.
- Soil health improvement through pulses is one of the important step
- Pea crop was one of the major contributor of nitrogen in soil through nitrogen fixation and pulse crops are ideal for crop diversification and intensification.

Parallel poster sessions were organized and more than 82 poster paper presentations were made during the conference. The posters were evaluated and during concluding function on 22 January 2017, the best posters and papers were awarded from each session. The awards were distributed by Prof Gajendra Singh, Ex-DDG, ICAR and Dr. Suraj Bhan, President, SCSI, New Delhi. Dr. Sanjay Arora, Chairman, Evaluation Committee and VP, SCSI, New Delhi presented vote of thanks.

Soil Conservation Society Awards-2016

The Soil Conservation Society of India has instituted different awards for the excellence in the area of soil and water conservation, research, management, application, information & communication, innovation and initiatives. In this line, the Awards for 2016 were distributed by Sushri Uma Bharti, Hon'ble Union Minister, Ministry of Water Resources, River Development and Ganga Rejuvenation, Govt. of India, New Delhi on 20th January 2017 at Inaugural function of 1st Asian Conference at IGKV, Raipur. The awardees were:

LIST OF AWARDEES 2016

National Fellow Award
- Dr. T.B.S. Rajput
- Dr. Bir Singh Negi

Life Time Achievement Award
- Dr. Sanjay K. Patil
- Dr. Surinder Singh Grewal

Gold Medal Award
- Prof. Rajendra Kumar
- Dr. Vinay K. Pandey
- Shri A.K. Sondhi
- Dr. P.K. Rai
- Shri. V. Theivendran

Leadership Award
- Smt. Rekha Banerjee
- Dr. A.L. Rathore
- Dr. Nilay Borah
- Dr. N.R. Panwar

J.S. Bali Award
- Dr. Sanjay Arora

Sumer Memorial Award
- Dr. Bishnu Pratap Singh

Special Honour Award
- Dr. A.K. Mishra

Student Incentive Award
- Ms. Karnika Dwivedi
- Mr. Tejbir Singh Buttar
- Dr. Angira Prasad Mahata
- Dr. Nandita Baruah

Special Research Award
- Dr. R.S. Yadav
- Dr. Mukesh Kumar

Honorary Membership Award
- Shri Ashish Burman

SCSI Book Award
- Dr. V.K. Bharti

26th National Conference on Natural Resource Management for Climate Smart Sustainable Agriculture (NRMCSSA-2017)

11th-13th September 2017, Imphal (India)

at College of Post Graduate Studies (CPGS), Barapani, Meghalaya (Central Agricultural University, Imphal)

Organised by
Soil Conservation Society of India, New Delhi

In collaboration with
Central Agricultural University, Imphal

Conference Themes

- Efficient Management of Soil, Water, Energy, Forest, Animals, Wild Life, and Human Resources
- Diversification for Climate Smart Sustainable Agriculture
- Abiotic and Biotic Stress Management to Mitigate the Effects of Climate Change
- Carbon Sequestration in Soils for Different Land Use Systems
- Integrated Farming Systems for Under Privileged Farmers
- Conservation Agriculture and Smart Mechanization to Protect Natural Resources
- Conservation of Forest and their Management in Hill Region
- Management and Development of Medicinal & Aromatic Plants
- Precision Nutrient Management, Organic Farming and Bio-diversity Conservation, Indigenous Technology Knowhow
- Management and Rehabilitation of Problematic Soils for Sustainable Soil Health
- Application of Remote Sensing and GIS Information Technology in Natural Resource Management
- Integrated Watershed Management for Food Security and Rural Livelihood Support
- Eco-responsive Livestock and Fisheries Production
- Innovation Systems and Last Mile Delivery of Agronomic Management Practices
- Youth and Gender, Emerging Challenges, Policy Issues
- Watershed Based Conservation Farming Systems
- Household Production Systems
- Participatory Management, Social and Institution issues
- Shifting (Jhum) Cultivation in NEH region
- Bio-diversity Conservation and Bio-industrial Watershed

Call for Papers: Submission of Papers and Abstracts

Abstracts are invited on any of the above theme areas or other related areas. The abstracts should not exceed 500 words, should be typed in double space leaving 2.5 cm margin on all sides on A-4 paper. Three to five key words should be given below the abstract in italics. The font should be Times New Roman in 12 pt. size. The abstract and full paper should be sent through e-mail at nrmcssa2017@gmail.com in MS word format. A committee will review the abstracts and decide about the nature of presentation (oral/poster). Author(s) will be intimated regarding the acceptance of the papers. Awards will be given for the best paper and poster presentation on each theme areas.

Important Dates

- Last date of Abstract submission: 30th June, 2017
- Intimation of acceptance of abstracts: 15th July, 2017
- Submission of full length papers: 31st July, 2017
- Last date for Registration (without late fee): 15th Aug, 2017

Registration Fee

Conference is open only for the registered participants. Registration fee is as under:

- For Members of SCSI: Rs. 4,000/-
- For Non Members of SCSI: Rs. 5,000/-
- For Research Fellows and students: Rs. 2,500/-
- Accompanying person: Rs. 2,500/- per person

Conference updates

Information contained in the circular and all updates are available at college website www.cpgs.ac.nic as well as at the website of SCSI www.scsi.org.in

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