International Conference on

"Soil and Water Resources Management for Climate Smart Agriculture, Global Food and Livelihood Security"

5-9 November, 2019 at NASC Complex, Pusa, New Delhi, India

Programme at a Glance

DAY 1	Tuesday, November 5, 2019
08:30 -10:00	**Registration**
10:00-11:30	**INAUGURAL SESSION** ***A.P. Shinde Symposium Hall***
11:30-12:00	**HIGH TEA**
12:00-13:30	***Panel Discussion*** **Soil and Water Conservation under changing climate scenario: Issues and Challenges** ***Moderator***: Dr. T.B.S. Rajput ***Convener***: Dr. N.K. Pareek
	Panelist: 1. Prof. Li Rui, Institute of Soil and Water Conservation, Beijing 2. Prof. Miodrag D. Zlatic, Faculty of Forestry, Belgrade University, Serbia 3. Dr. Samir A El-Swaify, ISCO Coordinator 4. Sh. V.W. Ambekar, Ex-Director, Agriculture 5. Dr. Jose L. Rubio, Universitat de Valencia, Valenciana 6. Dr. C.P. Reddy, MoRD, GoI, New Delhi 7. Dr. Suraj Bhan, Presdient, SCSI 8. Prof. Mohammad H. Golabi, University of Guam, USA 9. Representative NABARD 10. NBA Representative
13:30-14:30	**LUNCH**
14:30-17:00	**Technical Session I: Soil Degradation Assessment and Remediation** ***A.P. Shinde Symposium Hall***
	Chairman: Prof. Jose L. Rubio **Co-chairman**: Dr. Pengfei Du **Conveners**: Dr. M.J. Singh, Dr. S.K. Dubey
	Topic : Preliminary progress on global soil erosion assessment **Keynote speaker:** *Prof. Li Rui* ***Topic :*** Strategies, lessons and experiences on the sustainable soil management **Keynote speaker:** *Prof. Miodrag D. Zlatic*
	Lead Presentations
	Management of soil resources for sustained production *Jagdish Prasad*
	Soil conservation measures in hot arid region of India to control wind erosion *P. Santra*
	Oral Presentations
	Gully development and erosion environment evaluation in a small watershed located in the transitional area from plateau to plain in northern China *Pengfei DU, Jingjing XU and WenlongSONG*
	Corrosion mechanical properties of topsoil in 4 different vegetation communities *GE Rile, HAO Xuting, SU Rina and Huang Jing*
	Preliminary study on soil and water loss and its control measures in Tibet *Shi Zhe, REN fei-peng and SUN Bao-yang*
	Study on the change of soil erosion and its influencing mechanism in the loess plateau of the middle reaches of the Yellow river in different periods since the middle of the 20th century *Li Min and Zhang Li*
	Soil erosion and sedimentation research in selected countries *Liu, Xiaoying Ding, Xinhui Yu and Qiyang Chen Jianlong*
	Causes analysis and control technologies of soil and water loss of economic forestland in northern earth-rock mountainous areas, China *Xinhui Ding, Xiaoying Liu, Guangquan Liu, Duihu Ning, Yongsheng Xie, Xiaodong Hao and Wei Zhou*
	Preparation of erosion susceptibility map of Dhaman Khadi sub-watershed in eastern Gujarat *A. P. Lakkad, K. N. Sondarva and P. K. Shrivastava*
	Improved interrill erosion prediction by considering the impact of the near-surface hydraulic gradient *Chenfeng Wang, Bin Wang, Yunqi Wang, Yujie Wang and Wenlong Zhang*
	Effect of gypsum, crop residue mulch and manure on resource conservation and soybean productivity in table land of Chambal ravines *I.Rashmi, Shakir Ali, B.L.Mina, Kuldeep Kumar, Ashok Kumar and R.K. Singh*

	Study of soil and water conservation measures in Chilkadabetta-1 micro watershed in Chamarajanagar district in Karnataka, India *Rajendra Hegde, M. B. Mahendra Kumar, K. V. Niranjana, G. Bardhan, G. M. Arpitha , S. P. Chaitra , T. N. Somashekar and S.K. Singh*
	Effect of straw incorporation into cultivated layer of farmland on surface runoff process under heavy rainfall events *Jiahui Yang, Huaqing Liu and Tingwu Lei*
	Assessment of runoff and soil loss under different grassland system in sloping land *Jitendra Kumar, R.P. Yadav, Shyam Nath, V.S.Meena, J.K. Bisht and A.Pattanayak*
	Effect of plant root and shoot characteristics on runoff and sediment yield under simulated rainfall conditions *Sushma Tamta and Akhilesh Kumar*
	New assessment of erosive soil losses on arable land of the European Russia *K.A.Maltsev and O.P.Yermolaev*
	Rainfall erosion of partially-thawed slope of organic soil of Qinghai-Tibet plateau *Gao Xiaofeng, Hi Xiaonan, Lei Tingwu, Liu Huaqing and Yang Jiahui*
17:00-17:15	**TEA/COFFEE BREAK**
16:00-17:30	**POSTER SESSION I**
18:30-20:00	**CULTURAL PROGRAMME**
20:00-21:30	**DINNER**

DAY 2	**Wednesday, November 6, 2019**
9:00-10:30 **HALL-1**	**Plenary Session I:** **Chairman**: Prof. Li Rui **Co-Chairman**: Dr. Sanjay Arora **Conveners**: Dr. P.K. Rai, Ms. Mayuko Seki ***Topic :*** Land Degradation under New Worldwide Extensive Industrial Agricultural Developments: Causes and Consequences **Keynote Speaker:** *Prof. Ildefons Pla Sentis* **Lead presentations** Land degradation in the foothills of Jammu and strategies for its mitigation *Vikas Sharma and Vivak M. Arya* Quantitative assessment of land degradation processes using Model-builder in GIS environment *Mohamed A.E. AbdelRahman, Ahmed Abdelfattah Afifi and Noura Bakr* **Oral Presentation** Land degradation drives the influence of ventilation and pressure tides in the CO_2 exchange: A case study in two semi-arid grasslands *María Rosario Moya Jiménez, Enrique P. Sanchez-Cañete, Andrew S. Kowalski, Penélope Serrano-Ortiz, Ana López-Ballesteros, Cecilio Oyonarte and Francisco Domingo*
10:30-10:45	**TEA/COFFEE BREAK**
10:45-13:15 **HALL-2**	**Technical Session II: Water Resource Conservation and Management**
	Chairman: Dr. T.B.S. Rajput **Co-chairman**: Dr. NING Duihu **Conveners**: Dr. Atul K. Singh, Dr. Ranu Rani Sethi
	Lead Presentations
	Concept of Zero Ground Water Exploitation – Potential and Challenges *R.C. Srivastava*
	Recent trends in Agricultural Water Management for Climate Smart Agriculture *T.B.S. Rajput*
	Integrated Irrigation Management for Higher Water Productivity of Rice-wheat System in Northwest India *S.S. Kukal*
	Reliability and implementation of automated wireless sensor for irrigation system *Neelam Patel, Amrit Sharma and Chandni Pandey*
	Common sense based scientific interventions for revival of village ponds *Anshuman Kohli*
	Oral Presentations
	Baseline studies and irrigation Innovations for higher water productivity of medium irrigations projects of Telangana state of southern India *B. Krishna Rao, P. Shyam Sundar and K.Yella Reddy*

	The hydrodynamic mechanism of rainfall runoff from loess slope mixed with straw *Huaqing Liu, Jiahui Yang and Tingwu Lei*
	Alternate use of freshwater at early growth stage and saline canal water at reproductive stage can minimize the yield loss of maize under coastal saline region of Bangladesh *Akbar Hossain, Khandakar Faisal Ibn Murad and Jagadish Timsina*
	Effects of automatic drip irrigation on yield and water productivity in banana *P. Panigrah, S. Raychaudhuri, A. K. Thakur, A. K. Nayak, P. Sahu and S. K. Ambast*
	Enhancing water use efficiency through improved microbial jute retting technique *B. Majumdar, S. Sarkar, A. R. Saha, S. P. Mazumdar, R. Saha, S. K. Sarkar and S. K. Jha*
	Soil wetting pattern and water-front advance study under subsurface drip irrigation in Vertisol *A. Gupta and K.V.R. Rao*
	Integrated rainwater resource management (iRaM) model for coastal South Gujarat *P. K. Shrivastava, Dileswar Nayak, D. P. Patel, S.V. Viyol, H. S. Thakare and D. K. Dwivedi*
	Effect of irrigation and mulch regime on pigeonpea *M. A. Solanki, M. H. Fadadu, A.L. Chalodia and P.V. Dabhi*
	Drainage technologies for enhancing productivity of temporary waterlogged Vertisols in Central India *Ramadhar Singh, K.V. Ramana Rao and Satish Kumar Singh*
	Study on characteristics of soil and water loss in the Yangtze river basin and benefits of comprehensive treatment *Zhao Jian, Qian Jianjun and Yu Feng*
	Development and evaluation of solar powered micro irrigation using floating submersible pumpset in on farm reservoirs for improving water productivity in small farm holdings of rainfed areas *K. S. Reddy, V. Maruthi, P. K. Pankaj, A. Amarender Reddy, T. Saikrishna and G. R. Chary*
	Development of expert system for agricultural water management *Ashok K. Nayak, Pramod K. Panda, Rajeeb K. Mohanty and Sunil K. Ambast*
	Application of CCME water quality index for assessment of groundwater contamination in rural environment of the Great Hungarian plain *Tamás Mester, Dániel Balla and György Szabó*
	Single auger hole method for seepage estimation of canal under waterlogged conditions *Chhedi Lal Verma, A.K. Singh, Sanjay Arora, S.K. Jha, Y. P. Singh, T. Damodaran, V.K. Mishra and Rohit P. Ojha*
	Developing relationship for transforming water table heights of horizontal subsurface drainage of flat land to sloping conditions *Chhedi Lal Verma and Gyan Singh*
	Comparison of water removal by biodrainage belt and interceptor drain *S. K. Singh and Chhedi Lal Verma*
	Effects of long-term saline water irrigation on soil water- stable aggregates in cotton fields *Yuqing Wu, Kejiang Li, Jingsheng Sun, Hongkai Dang, Abbas E. Rahma, Junpeng Zhang and Chunlian Zheng*
	Comparative evaluation of various radiation and mass-transfer based reference evapotranspiration models *Yadvendra Pal Singh, H.K. Mittal and Vikas Sharma*
	Development and evaluation of soil moisture sensor for an automated drip irrigation system: An approach for water smart agriculture *Navneet Sharma, Atul Kumar Singh and Abdul Hakkim, V. M.*
	Impact of groundwater recharge from rainwater harvesting structures in hard rock areas of Odisha *Ranu Rani Sethi, Madhumita Das, B. Panda and S.K. Ambast*
	Effect of various mulch practices on moisture retention and fruit plant establishment in Bundelkhand region *Rajeev Ranjan, Monalisha Pramanik, Dinesh Kumar and R.S. Yadav*
	Effectiveness of recharge filter for ground water recharge structure for alluvial plains of North Bihar *Ravish Chandra, R. C. Srivastava, S. K. Jain, A. K. Singh and Ram Suresh*
	Efficacy of drip irrigation on summer sesame grown in Narmada district of Gujarat *M. H. Fadadu and P. K. Shrivastava*
	Status of distance learning programmes in water sector offered by IGNOU *Mukesh Kumar and Vijayakumar, P.*
	Effect of in situ rainwater conservation practices in sorghum [*Sorghum bicolor* (L.) Moench] under rainfed condition *R.P. Singh and A.K. Verma*
	Sensor based real time automatic irrigation system *A. P. Bowlekar, S. T. Patil, U. S. Kadam, M. S. Mane, S. B. Nandgude and N. K. Palte*
	Predicting soil moisture under indirect subsurface drip irrigation for contrasting soils *Mingtao Yu and Kefeng Zhang*
	Designing rainwater harvesting system for college and hostel buildings at Pantnagar, Uttarakhand *Anil Kumar*
	Prediction of soil water content at field capacity using artificial intelligence based machine learning approaches

	Priya Bhattacharya, P. Pramanik Maity, M. Ray, P. Krishnan, S. Das and P. Aggarwal
	Crop water requirement for wheat under different conservation practices in the semi arid region of India *Rekha Kumari Meena, Ananta Vashisth and T.K. Das*
	Effect of water management on soil nutrient status of nectarine (*Prunus persica* Batsch var.nucipersica) *Jagriti Thakur, Rana Vishal and Mohit*
	Water saving technologies for irrigated plains of Jammu *Vijay Bharti, A.K. Raina, Abhijit Samanta and Anuradha Saha*
	Effect of different irrigation methods and schedules on water productivity of wheat *P. Suryavanshi and G.S Buttar*
	Influence of varied wastewater-groundwater irrigation regimes on nutrients and heavy metals accumulation in spike and bulb of tuberose (*Polianthes tuberosa* L.) *D.S. Gurjar, R. Kaur, K.P. Singh and R. Singh*
	Conservation of water through pressurized irrigation system in rice-wheat cropping system: Scope and limitations *Ranbir Singh, S.K Chaudhari, D.K. Sharma, P. Dey, A.K. Rai and Satyendra Kumar*
	Studies on effect of drip irrigation system on growth parameters and yield of cluster bean (*Cyamopsis tetragonoloba* L.) under Raichur agro-climatic conditions *Veena, M., Nemichandrappa, M., Maheshwarababu, B., Srinivasareddy, G. V., Krishnamurthy, D. and Pampanna, Y.*
10:30-13:30	**POSTER SESSION II & III**
10:45-13:15 HALL-1	**Technical Session III(Concurrent): Climate Smart Techniques for Sustainable Agriculture**
	Chairman: Dr. Praveen Rao **Co-chair**: Dr (Mrs) Jana Podhrázská **Conveners**: Dr. Ajay Bhardwaj, Dr. Anil Sharma
	Topic: Adaptation and mitigation of climate change in India by soil conservation and restoration **Keyonte Speaker:** *Prof. Rattan Lal* ***Topic:*** Soil and water conservation role in the raise and fall of civilizations **Keyonte Speaker:** *Prof Jose L. Rubio*
	Lead Presentations
	Water harvesting for climate change adaptation in rainfed regions *B. Venkateswarlu*
	Development and management of land - water resources to tackle climate change effects *D.C. Das*
	Can carbon neutral farming be an option to mitigate climate change? *T.J. Purakayastha*
	Interventions of NABARD for climate change and climate smart agriculture *A. V. R. Prasad*, AGM, Climate Change Division, NABARD,Mumbai
	Oral Presentations
	Classification of disturbed land and estimation of soil loss in such land during engineering construction *Duihu NING, Pengfei DU and Liqin QU*
	Modelling based climate change adaptation strategies for a semi-arid river basin of India *Sujeet Desai, D. K. Singh, Adlul Islam and A. Sarangi*
	Farm ponds – A tool in climate smart agriculture for increasing productivity of agricultural crops *K. Manjappa and A. G. Koppad*
	Climate smart rainwater management technology with IFS models for water, food and nutritional security in rainfed regions *K. S. Reddy, V. Maruthi, P. K. Pankaj, A Amarender Reddy, Pushpanjali, T. Sai Krishna and G. Ravindra chary*
	Carbon sequestration efficiency of different organic manures in long term fertilizer experiment *Thulasi, V., Sudhamani, P. and P.P. Moossa*
	Sustainable intensification strategies for rice-wheat systems for climate change mitigation and adaptation *Ajay Kumar Bhardwaj and Ranbir Singh*
	Estimating aboveground and belowground respiration from eddy covariance and chamber measurements *Xiupingliu*
	Pond based integrated farming system (PBIFS): A climate smart agriculture for restoring waterlogged sodic soil for regional livelihood security *Chhedi Lal Verma, Y.P. Singh, A.K. Singh, S.K. Jha, Sanjay Arora, T. Damodaran, V.K. Mishra and Rohit P Ojha*
	Underground transfer of flood for Irrigation as a component of climate smart agriculture in the state of Uttar Pradesh, India *Navneet Sharma, Faiz Alam, Alok Sikka and V. K. Mishra*
	Carbon stock management under agro-silviculture system in north-east India *Hubert Jones Shullai and Sanjay-Swami*

	Status of soil organic carbon recovery under different fallow periods of shifting cultivated sites in Central Eastern Ghats, India *H. C. Hombegowda, Praveen Jakhar, Karma Beer and M. Madhu*
	Strip intercropping is a way forward for adaptation to climate change *V. Maruthi, K.S. Reddy, K. Srinivas and P.K. Pankaj*
	Impact of future climate variability and potential adaptation strategies on yield of kharif rice in Eastern India *Debjani Halder*
	Sustaining rice production in rainfed lowland areas of eastern India using contrasting rice varieties under climate change *Sanjeev Kumar Gupta, Anshuman Kohli, Mainak Ghosh and Y. K. Singh*
	Depth function of stored and sequestered organic carbon in cotton growing soils of south Gujarat *S. M. Bambhaneeya, A. Das and V.P. Usadadia*
	Agricultural land-uses affecting sequestration of carbon and its distribution in different pools in the soils of semi-arid India (south-western Punjab) *Agniva Mandal, A. S. Toor and S. S. Dhaliwal*
	Carbon balance and energy balance closure in tropical lowland rice-rice ecosystem *Dibyendu Chatterjee, A.K. Nayak, P. Bihari, C.K. Swain, S. Mohanty, S. Chatterjee and H. Pathak*
	Soil and water conservation techniques for enhancing the land & water productivity and mitigating climate change impact in rainfed regions *B. Krishna Rao, P.R. Bhatnagar, V.C.Pande, R.S. Kurothe and P. Shyam Sunder*
13:30-14:30	**LUNCH**
14:30-17:00 HALL-1	**Technical Session IV: Land Use Planning and Management for Food and Livelihood Security**
	Chairman: Prof. Ildefons Pla Sentis **Co-Chairman**: Prof. Liqin QU **Conveners**: Dr. Neelam Patel, Dr. A.S. Yadav
	Lead Presentations
	Two decades retrospect and prospect of water and soil conservation plan for production and construction projects in China *SUN Hou-cai and SUN Kun*
	Effect of land use on soil organic carbon and soil physical characteristics in north-western tract of India *M.S. Hadda, Gurwant Singh and Sumita Chandel*
	Land based agricultural water pollution –A study under participatory rural appraisal approach in Thirappane Cascade tank system, Anuradhapura, Sri Lanka *N.S. Abeysingha, S. Sumanaweera, S.S.K. De Silva and N.I. Wickremasighe*
	Oral Presentations
	Construction and engineering application of salt discharge model for clay saline-alkali soil in Yellow river delta *Chuanxiao LIU, Depeng MA, Kesheng LI, Yuhan GENG and Quanxin LI*
	Pigeonpea based intercropping systems under rainfed ecosystem *S.K. Uttam, Munish Kumar, Jitendra Kumar and Durgesh Kumar*
	Phytoremediation potential of sunflower and asparagus for coal mined heavy metal polluted soil of Jaintia hills, Meghalaya *Euwanrida Adleen Shylla Lyngdoh and Sanjay-Swami*
	Effect of resources conservation techniques on production potential of baby corn *Hardev Ram, Rakesh Kumar, R.K. Meena and Uttam kumar*
	Resource conservation, productivity, economics and soil fertility under rain-fed pearl millet crop at varying slopes of Yamuna ravine *R.K. Dubey, S.K. Dubey, A.K. Singh, K.K. Sharma, Rama Pal and A.K. Nitant*
	Location specific traditional practices vis-a-vis soil and water conservation in north-eastern region of India *Sanjay-Swami*
	Paddy based strip cropping for sustainable productivity on uplands of southern Odisha *Praveen Jakhar, P.P.Adhikary, B. S. Naik, D. Barman, D.C. Sahoo and M.Madhu*
	Study of sustainable coastal zone management strategies for the western ghats of Karnataka, India *K.V. Ramesh, Malini P.J. and C. Dhananjay Kumar*
	Effect of nitrogen, phosphorus and zinc on nutrient uptake, yield and quality of ber (*Zizyphus mauritiana* Lamk.) cv. Umran *D.K. Sarolia and S. Mukherjee*
	Effect of integrated nutrient management on quality of pomegranate (*Punica granatum* L.) cv. Ganesh *C.L. Meena, R.K. Meena, D.K. Sarolia and L.K. Dashora*
	Analysis of the effects of soil and water conservation measurements in typical urban production and construction projects- taking Shenzhen City as an example *Xu Wensheng, Sun Jinwei, Wang Qian, You Hao, Zhang Wenjie*

	Land resource inventory for integrated watershed development in 11 selected Sujala- III districts in Karnataka, India *Rajendra Hegde, P.C. Ray, K. V. Niranjana, B. A. Danorkar, S Srinivas, and M.S. Lalitha*
	Study on the nature, distribution and management of sodic soils in Yadgir district of northern Karnataka, India *Rajendra Hegde, G.M. Arpitha, S.P. Chaitra, T.N. Somashekar, M.B Mahendra Kumar, G. Bardhan, B.A. Dhanorkar and S.K Singh*
	Assessing contribution of land use in soil erosion vulnerability in lesser Himalayan region using multi criteria decision method *Shachi Pandey, Parmanand Kumar and Vijender Pal Panwar*
14:30-17:00 HALL-2	**Technical Session V (Concurrent): Biodiversity Conservation and Strategic Soil and Water Management**
	Chairman: Dr. P.R. Ojasvi **Co-Chairman**: Prof. Dr. Ing. Bořivoj Šarapatka **Conveners**: Dr. Sanjay Swami, Dr. Jitendra Sinha
	Lead Presentations
	Review and prospect of protection forest system construction in the Yangtze river basin in the past 30 years *QIN Qingfeng and HUANG Zhengqiu*
	Ecological restoration of mangrove forest in southern east coast of Andhra Pradesh, India *Basha S.K.M and Indira Priydarsini*
	Oral Presentations
	Resource conservation technology for Jute based cropping systems: Issues and prospects in Indo-Gangetic plains *R. Saha, B. Majumdar, Alka Paswan, M.S. Behera, D. Barman, Laxmi Sharma and S. Sarkar*
	Response surface modeling (RSM) and optimization of Lead (Pb^{2+}) removal from spiked aqueous solution using immobilized biomass of lead resistant bacteria *Namita Das Saha, Ravinder Kaur, Arpan Bhowmik, Eldho Vargese, Archana Sharma, Preeti Singh, S. D. Singh and S.K. Bandyopadhyay*
	Study on flexural mechanical properties of 6 plant shoots during non-growth period *HAO Xuting, GE Rile, SU Rina and Huang Jing*
	Species functional strategies modify biotic interactions in response to increased precipitation and N deposition in a desert ecosystem *Bin Wu*
	An overview of mangroves for protection of coastal areas *Swati Shedage and P. K. Shrivastava*
	Soil remediation by native flora grown in metal contaminated soils *Santosh Birman*
	Impact of conservation tillage and intensifying crop rotations in enhancing soil carbon, microbial cycling and aggregation in semiarid agro-ecosystems: A Review *S.S. Dhaliwal, R.K. Naresh, Raj K. Gupta, S.K. Malhotra, Ashok Kumar, Arvind Kumar, Bijendra Singh, Yogesh Kumar, Satya Prakash and N.C. Mahajan*
	Effective utilization of biofertilizers to minimize climate change impact *Pradeep K. Rai, Vishal Gupta, Akash Sharma, Balbir Dhotra and G.K. Rai*
	Minor millets based agroforestry of multipurpose tree species of Bhimal (*Grewia optiva* Drummond J.R. ex Burret) and Mulberry (*Morus alba*) for resource conservation and production in North Western Himalayas - 10 year study *Harsh Mehta, J.M.S. Tomar, D. Mandal, A.C. Rathore, R. Kaushal, S.K. Sharma and P.R. Ojasvi*
17:00-17:15	**TEA/COFFEE BREAK**
16:00-17:30	**POSTER SESSION IV**
17:30-19:00	**WASWAC Council Meeting**
19:00-19:30	**WASWAC AWARD CEREMONY**
19:30-21:30	**GALA DINNER**

DAY 3	**Thursday, November 7, 2019**
9:00-10:30 HALL-1	**Panel Discussion** **Future Strategies for resource conservation to mitigate climate change** ***Moderator:*** Dr. S. Manivannan ***Convener***: Dr. Vikas Sharma
	Panelist: Prof. Ildefons Pla Sentis, Universitat de Lleida, Lleida (España), Spain Prof. Dr. Ing. Bořivoj Šarapatka, Czech Society of Soil Science Dr. D.C. Das, New Delhi, India Prof. Jolanta Kwiatkowska-Malina, Warsaw University of Technology, Poland

	Dr (Mrs) Jana Konecna, Czech Republic Prof Mahmoud Ali Abdelfattah, Fayoum University, Fayoum, Egypt Shri Shamsher Singh, New Delhi, India Dr. B.S. Negi, Ex-Director, Horticulture Shri. B. Rath, NRAA, New Delhi Shri C.M. Pandey, New Delhi, India Dr. A. V. R. Prasad, AGM, Climate Change Division, NABARD,Mumbai
10:30-13:00 HALL-1	**Plenary Session II: Next Generation Nutrient and Water Management in Agriculture**
	Chairman: Dr. Bijay Singh **Co-Chairman**: Dr. H. Pathak **Conveners**: Dr. Sheetal Sharma, Dr. Anshuman Kohli
	Topic: Precision fertilizer nitrogen management for maintaining soil health in smallholder farms in developing countries **Keynote speaker:** *Dr. Bijay Singh*
	Topic: Plant nutrient management strategies in agriculture – Current approaches and future strategies **Keynote speaker:** *Dr. Pradeep Dey*
	Topic: Integrated Water Management Strategy for Rice-wheat system in Northwest India **Keynote speaker:** *Prof. S.S. Kukal*
	Topic: Soil Management for Climate-smart Agriculture **Keynote speaker:** *Dr. H. Pathak*
	Topic: Smart Fertilizers and Technologies for Next-Generation Nutrient and Water Management **Keynote speaker:** *Dr. U. Singh*
	Topic: Aakash Project : Challenge toward Clean Air, Public Health and Sustainable Agriculture **Keynote speaker:** *Prof. Sachiko*
	Lead Presentations
	Using ICT for natural resource management for smallholder farmers: What works and what doesn't!! *Dr Sheetal Sharma*
	Eco-friendly farming technologies for reducing reliance on chemical fertilizers for rice farming *Dr. Warshi*
	Oral Presentations
	Evaluation and refinement of zinc management options for site-specific nutrient management in Eastern India *Ajay Kumar Mishra, Rajeev Padbhushan and Sheetal Sharma*
	Impact of split application of potassium fertilization on partitioning and availability of potassium at different growth stages of rice in calcareous soil *Mani Mesha Nand, Shiveshwar Pratap Singh, S.S. Prasad, S. Jha and S. Dutta*
	Performance Evaluation of AquaCrop Model for Rice Crop Grown Under Surface and Subsurface Drip Irrigation in Tarai Region of Uttarakhand *Vikas Sharma, P.K Singh and P.K Singh*
	Nutrient Management for Sustainable Rice Production under Rainfed Upland Ecology *B.C.Verma, D.Maiti, S.Roy, N.P.Mandal, S.M.Prasad, S.Bhagat, A.Banerjee, D. Bhaduri and D. Chatterjee*
	Field specific nutrient management in rice using crop manager: An aid to improve economic status of Indian farmers *Rajeev Padbhushan, Sheetal Sharma and Ajay Kumar Mishra*
11:30-11:45	**TEA/COFFEE BREAK**
11:00-13:00	**POSTER SESSION V & VI**
13:00-14:00	**LUNCH**
14:00-16:30 HALL-2	**Technical Session VI: Socio Economic Issues in Resources Management for livelihood security**
	Chairman: Prof. Miodrag Zlatić **Co-Chairman**: Dr. Mahmoud A. Abdelfattah **Conveners**: Dr. Satya Prakash, Dr.A.K. Dixit
	Lead Presentations
	Social Dimensions in Soil and Water Conservation *Lakhan Singh*
	Socio-economic issues of sustainable soil management - hilly area of Serbia *Miodrag D. Zlatić*
	Towards climate resilience, enterprise profitability and social equality through NRM based sustainable farming *Anil K. Srivastva*
	Oral Presentations
	Efficient resource management for sustainable forage - food production in Bundelkhand region of India *A.K. Dixit, Mukesh Choudhary and S.K. Rai*

	Evaluation of the environmental, economic, and social impacts of the grain for green project on loess plateau of northern Shaanxi province in China-taking Mizhi county case study *LiuSan Cheng*
	Socio-economic factors influencing on soil conservation technologies adoption in western hills of Tamil Nadu *R. Sudha and C. Sekar*
	Effect of water resources development and technology interventions on livelihood of farmers in Eastern India *S. Mohanty, S. K. Rautaray, K. G. Mandal, R. K. Mohanty, S. Ghosh and S. K. Ambast*
	Natural resources management based on delineation of farming situations of Narharpur Block of Kanker district *Dhiraj Khalkho, Vijay Kumar and M. P. Tripathi*
	Women empowerment, rehabilitation, environment protection, employment generation, energy utilization, soil solarization, hill cultivation, micro flora and fauna *Arijit Bhattacharya*
	Assessment of micro irrigation potential for extending its coverage in India *Prabhat Kishore and Subhash Chand*
	Spices, medicinal and aromatic plants an alternate remunerative option under edapho climatic stresses *O.P. Aishwath and G. Lal*
	Techno economic study of summer sesame crop grown in Saurashtra region of Gujarat *K.N. Sondarva, P.S. Jayswal and A.P. Lakkad*
	Assessment the impact of technology dissemination of fennel primary processing on income and employment opportunities for tribal women *R.L. Bhardwaj*
	Resource conservation by on-farm use of manual paddy drum seeder in Unnao district *R. C. Maurya, Ratna Sahay and Archana Singh*
	Role of INM in increasing oilseed production and improving rural livelihood in Bundelkhand region of India *Jagannath Pathak and U.S. Gautam*
	Assessment of interventions in Agri-horti systems under rainfed conditions *Meenakshi Gupta, Sarabdeep Kour and Vikas Gupta*
14:00-16:30 HALL-1	**Technical Session VII (Concurrent): Policy Interventions in Soil and Water Management for Global Food Security**
	Chairman: Dr. Samir A El-Swaify **Co-Chairman**: Dr. Ye Suigao **Conveners**: Dr Susama Sudhishri, Dr. M.S. Mavi
	Lead Presentations
	Soil and water conservation policy and its relating to human–environment context in the Yellow River basin since 1949 *Fei Wang and Rui Li*
	Sustaining crop production using poor quality waters - Challenges and opportunities *O.P. Choudhary*
	Understanding the legacy effect of different tillage farming systems with crop residue input on carbon mineralisation and available nutrient supply in contrasting soils *Bhupinder Pal Singh, Jharna Rani Sarker, Yunying Fang and Annette L. Cowie*
	Common sense based scientific interventions for revival of village ponds *Anshuman Kohli*
	Oral Presentations
	Can anti-erosion measures be proposed in such a way as to also increase the biodiversity of the countryside? *Bořivoj Šarapatka and Marek Bednář*
	Soils of arid and semiarid environments: Major challenges and potential opportunities *Mahmoud A. Abdelfattah*
	The twenty years retrospect and prospect of water and soil conservation plan for production and construction projects in China *SUN Houcai*
	The tradeoff between soil erosion protection and water consumption in revegetation: evaluation of new indicators and influencing factors *Xining Zhao, Daili Pan, Xiaodong Gao and Pute Wu*
	Artificial intelligence- boon for future agriculture *V.K. Bharti, Suraj Bhan and Sandeep*
	Aspects of a legislative and policy framework to manage soil carbon sequestration *Ian Hannam*
	Artificial intelligence in relation to agriculture *M.S. Hadda and Sumita Chandel*
	Irrigation Planning with Conjunctive Use of Surface and Groundwater Using Linear Programming *K. Kishan and H.V. Hema Kumar*

	Guiding the ecological construction of soil and water conservation with Jinping Xi's ecological civilization thought *Wencong Zhang*
	Assessing farmers' perception, vulnerability and coping strategies to climate change in hot semi-arid eco-region of Rajasthan, India *Ashok Kumar, H.R. Meena, I. Rashmi, Kuldeep Kumar and R.K. Singh*
	Water productivity in rainfed agriculture: Status, challenges and paradigm shift *Eazhilkrishna. N., B. Rath and Tarun Maggo*
	The urgent need for a global agreement for sustainable food and farming *Emma Slawinski*
	Conservation measures for resource conservation and sustainable production in Central India *Dev Narayan*
	On ecological water-soil science *Wenzhao Liu*
	Natural resource conservation planning education: Engaging the next generation *Carl I. Evensen*
	Conservation agriculture: A tool for saving natural resources with food and livelihood security in Bangladesh *Ilias Hossain, T.P. Tiwary, M. K. Gathala, NCD Barma and M. A. Hakim*
	Collaborative purification technology of Field-ditch-wetland system for non-point source pollutant from paddy rice irrigation area *ZhengShizong and Ye Suigao*
	Community participation in water resource management: a case study of local water storage structures in Gujarat state of India *V. C. Pande, P. R. Bhatnagar, D. R. Sena and G. L. Bagdi*
	Determinants of adoption of soil and water conservation measures: A systematic review for policy makers' perspective *Suresh Kumar, D.R. Singh, H. Biswas and A.S. Morade*
	Need for water resources management at micro level and necessity for an alternative legal frame work with specific reference to agriculture *N. C. Pani*
16:30-16:45	**TEA/COFFEE BREAK**
15:00-17:30	**POSTER SESSION VII & VIII**
17:00-19:00	**ISCO Board Meeting**
19:30-20:30	**DINNER**

DAY 4	**Friday, November 08, 2019**
9:30-13:00 HALL-1	**Technical Session VIII: Bio-industrial Approaches to Watershed for Food and Livelihood Security**
	Chairman: Sh. V.W. Ambekar **Co-chairman**: Sh. B. Rath **Conveners**: Dr. S. Manivannan, Dr. O.P. Aishwath
	Topic: Bio-industrial watershed for sustainable bio-economy through innovative bio-industrial crop– coconut palm (*Cocos nucifera* L) **Keynote Speaker:** *Dr. C.J. Thampi*
	Lead Presentations
	Spatial representativeness analysis for policy-making of the Gavkhouni Watershed, Central Iran *Seyed Hamidreza Sadeghi, Somayeh Kazemi Kia, Zeinab Hazbavi, Mahdi Erfanian and Seyed Mohammad Sadegh Movahed*
	Water harvesting based integrated farming to boost farmer's income *R. K. Sahu, Jitendra Sinha and M. P. Tripathi*
	Oral Presentations
	Achieving smarter watershed management with ensured presences of environmental and other technological constituents *Murari Lal Gaur*
	Evaluation of water harvesting structures and their re-utilization plan for enhancing productivity in Nuh block, Haryana *S. Sudhishri, Anchal Dass, S.S. Kukal, Sakshi Saraf, Arockia Anushty and Love Kumar*
	The Yangtze river basin soil erosion and soil and water conservation comprehensive control effect *Zhao Jian*
	Factors affecting sustainability of community led watershed management projects in rainfed agro-ecosystem of Northwest Himalayas *Madan Singh, Rajesh Bishnoi, Bankey Bihari, N.M. Alam and Indu Rawat*

	Issues pertaining to horticultural component in watershed Management *Amrut S. Morade, H. Biswas, Suresh Kumar and D. M. Kadam*
	Spring flow behavior in lesser Himalayan region of Uttarakhand (India) *Vinay K. Rathi, Shobha Ram, Avinash Agarwal and R. K. Nema*
	Acceptance of land resource inventory-based planning in watersheds of Karnataka *S.L. Patil, H. Biswas, B.S. Naik, P.R. Ojasvi, A. Raizada, A.S. Morade, Ravi Dupdal, M. Prabhavathi, Suresh Kumar, Ravi K.N., S.S. Shrimali and Pradeep Dogra*
	Change detection of land use and land cover of a watershed using remote sensing and GIS *Abhigna, Fathima .F.I. Khan, Puja T., ManojKumar. G, Saikumar. R and Prakash*
	Land Resource Inventory (LRI) for sustainable watershed development -A case study of Bisarahalli-1 micro-watershed, Koppal district in Karnataka, India *K.V. Niranjana, B.A.Dhanorkar, Rajendra Hegde, S. Srinivas, Bheemaraya, Tirupati Meti and S.K. Singh*
	Converging agronomic innovations for sustainable productivity of watersheds *Praveen Jakhar, D.C. Sahoo, P.P. Adhikary, Karma Beer and M. Madhu*
	Development and management of integrated water resources under integrated farming system for livelihood security at North-Eastern hilly region *B.K. Sethy, D. Chakraborty, H.Dayananda Singh, Naseeb Singh, P.R. Ojasvi and S.K. Ambast*
	Impact of nutrient movement in agricultural watersheds on surface water resources of Nilgiris District, Tamil Nadu *V. Kasthuri Thilagam, S. Manivannan and O.P.S. Khola*
	Inter watershed water transfer through gravity fed HDPE pipeline can pave way for doubling farmers' income in NW Himalayas *D.V. Singh, S. Patra, N.K. Sharma, D.M. Kadam and P. R. Ojasvi*
	Energy saving solar pump combined with micro-irrigation for economic use of harvested runoff in semi-arid region of Karnataka *B.S. Naik, S.L. Patil, H. Biswas, P.R. Ojasvi, Ravi K.N and K.K. Reddy*
	Multiple use of harvested rainwater: An economically viable system for small farmers of Hilly regions *S. Manivannan, O. P. S. Khola, V. Kasthuri Thilagam and Suresh Kumar*
	Field efficiency assessment of pressure-state- response (PSR) model for watershed health characterization (Case Study: Shazand Watershed-Iran) *Zeinab Hazbavi, Seyed Hamidreza Sadeghi and Mehdi Gholamalifard*
	Rain water use efficiency and relationship between rainfall, runoff, soil loss and productivity in Kandhamal district of Odisha *C.R.Subudhi, S.C.Senapati and Rageswari Subudhi*
	Land and water resources management in the high Cauca river watersheds *Jiménez Escobar Henry*
9:30-13:00 HALL-2	**Technical Session IX (Concurrent): Geospatial Techniques and Simulation Modeling for Soil and Water Management**
	Chairman: Prof. Jolanta Kwiatkowska-Malina **Co-chairman**: Dr. P.K. Mandal **Conveners**: Dr. R.P. Sharma, Dr. Susanta K. De
	Lead Presentations
	Applicability of erosion 3D model to simulate runoff and soil loss in lower Shivaliks of Punjab, India *M.J. Singh, Harpreet-Singh, A. Yousuf, Hartsch K. and Michael A.*
	Soil quality assessment in mountainous agro-ecosystem using geospatial approach *Suresh Kumar, Suman Roy and Justin George K.*
	Oral Presentations
	Estimation of Suspended Sediment Concentrations in the Yellow River using Landsat ETM+: Application of a Spectral Mixing Algorithm *Liqin Qua Tingwu Lei, Duihu. Ning and Xiusheng Yang*
	A method of assessing the regional potential soil erosion change based on remote sensing and GIS *Jun Huang, Pingwei Jin, Qing Kang and Xuebing Jiang*
	Orthogonal numerical simulation of influencing factors on soil erosion induced by underground mining *Depeng Ma, Chuanxiao Liu, Guangtan Cheng, Junpeng Zhang and Jian Zhang*
	Micro-watersheds prioritization using of ArcGIS interface for effective soil conservation planning of sub-watershed *A. P. Lakkad, K. N. Sondarva and P. K. Shrivastava*
	GeoSpatial Interpolation for Mapping the Qualitative Soil Properties using GIS *Mohamed A.E. AbdelRahman, Yasser M. Zakarya and Mohamed M. Metwaly*
	Prioritization of Mago basin based on erodibility through morphometric analysis using GIS technique: a PCA- based approach *A. Bhadra, T. Golom, L. Nirin and A. Bandyopadhyay*
	Spatial Variability Assessment of Soil Fertility in Black Soils of Central India Using Geostatistical Modelling *R. P. Sharma, S. Chattaraj, D. Vasu, K. Kartikeyan, P. Tiwary, R. K. Naitam, B. Dash, G. Tiwary, A. Jangir, A. Daripa, S. K. Singh, S. G. Anantwar and A. M. Nimkar*

	The role of elevation's data accuracy in erosion-accumulation modelling particularly in relation to crop yields *Marek Bednář, Bořivoj Šarapatka and Patrik Netopil*
	Rainfall Runoff Simulation modeling using Remote Sensing, GIS and HEC-HMS Model *Love Kumar, V.K. Pandey, M. P. Tripathi, Dhiraj Khalkho and Jitendra Sinha*
	Soil fertility evaluation of Kotihalli micro-watershed, Tumkur district, Karnataka using geospatial technique *Arun Kumar, J. S., Anilkumar, S. N., Chikkaramappa, T., Kadalli, G. G. and Nithin, G. P.*
	Mapping of soil organic carbon status and its spatial distribution pattern in Achattipura sub-watershed, Chamarajanagar district, Karnataka using geospatial techniques *Prakash, S. S., Chikkaramappa, T., Chaithra, M. C., Kadalli G.G., Anil Kumar, S. N. and Shruti, Y.*
	Estimation of leaf chlorophyll content in wheat using hyper-spectral vegetation indices under irrigation, residue mulch and nitrogen management practices *S. Pradhan and K.K. Bandyopadhyay*
	Modelling of snowmelt runoff in Lidder river catchment of Himalayan region *Rohitashw Kumar and Saika Manzoor*
	Investigation on soil fertility constraints for site specific recommendations in Hanumali Sub-watershed, Davangere district, Karnataka by using Geo-spatial techniques *K. T. Gurumurthy, Ravikumar D, Priyanka A V, Anantakumar Patil, Sindhu H. S., Raghu A N, Rudresh M. D., Raghavendra S. and Vasanthkumar K. M.*
10:45-11:00	**TEA/COFFEE BREAK**
10:30-12:00	**POSTER SESSION IX**
13:00-13:30	**LUNCH**
13:30-19:30	**Half Day Tour (Local)**
20:00-21:00	**DINNER**

DAY 5	**Saturday, November 9, 2019**
9:30-12:00 HALL 1	**Technical Session X: New Paradigms in Soil Health and Nutrient Management**
	Chairman: Dr. Mohammad H. Golabi **Co-chairman**: Dr. R.K. Sahu **Conveners**: Dr. Nilay Borah, Dr. Rajan Bhatt
	Topic: Integrated soil management strategies for enhancing soil quality in resilient agriculture for southern Guam **Keynote Speaker:** *Dr. Mohammad H. Golabi*
	Lead Presentations
	The impacts of agricultural practices on land cover and soil quality in the middle river Njoro sub watershed in Kenya *Zachary Gichuru Mainuri, John M. Mironga and Samuel M. Mwonga*
	Microbial interventions for crop residue degradation for enhancing crop productivity and improving health of salt affected soils *Sanjay Arora*
	Soil phosphorus status and management in agriculture: Prospects and retrospect *R.S. Yadav*
	Oral Presentations
	Crop residue and potassium management practices to improve soil quality and water use efficiency under zero tillage maize-wheat cropping system at Indo-Gangetic Plains of India *Raghavendra M., Y.V. Singh, M.C. Meena, T. K. Das and R. K. Verma*
	Effect of forest degradation on hydrodynamic soil quality and carbon storage in semi-arid Mediterranean climate *Hafida Zaher, Hassan Benjelloun, Mohamed Sabir and Doré Menine*
	Impact of conservation agriculture on soil physical condition, organic carbon content and plant root response – A global meta-analysis *Surajit Mondal, Debashis Chakraborty, Akram Ahmed and B.P. Bhatt*
	Importance of potash for sugarcane cultivation in Punjab, India *Rajan Bhatt, Paramjit Singh and Surinder Kumar Bansal*
	Deficit saline irrigation and mulching improve biological health of soil cultivated with fodder sorghum - wheat sequence in salt-affected soils of Northwest India *Nirmalendu Basak, Arvind K. Rai, Pooja Gupta Soni, Parul Sundha, Bhaskar Narjary, Gajender, Satyendra Kumar, Rajender K. Yadav and Parmodh Chander Sharma*
	Interactive effects of organic amendments, mineral fertilizers and gypsum on microbial use efficiency, soil structure, and carbon priming in a dispersive (sodic) subsoil *Bhupinder Pal Singh, Yunying Fang and Ehsan Tavakkoli*
	Reducing nitrogen losses accountable for environmental pollution by altering its mode of application in saffron growing soils *Anil Sharma, J. I. Mir, O. C. Sharma and D. B. Singh*

	Marine Gypsum: An effective alternative ameliorant to mineral gypsum for the management of degraded sodic soils *S.K. Jha, V.K. Mishra, T. Damodaran and Y.P. Singh*
	Decentralised approach of wastewater treatment and its impact on soil and potato crop quality *Sumit Pal, Neelam Patel, Anushree Malik, D.K. Singh and Gaurav Singh*
	Estimation of critical dry spell in Shipra basin for enhancing crop productivity *Smita Jaiswal, Ravi Galkate, Prashant Singh and V.K. Chandola*
	Short-term impacts of conservation and traditional agriculture on natural resources and corn yield *Ocaña Reyes J.A., Zelarayán Muñoz O. and Albertengo J.*
	The residual effect of the modified white CKD on peas plants grown in sandy soil *M. A. Morsy, G. M. El-Dawwy, H. A. Hassan and K. H. Mohammed*
	Study of no-tillage and straw turnover of sweet corn in Guangdong Province of South China *Hu Jianguang, Ou Yinggang, Gao Lei, Yang Dantong, Hu Xueying and Ren Xiaoping*
	Soil quality assessment of river flood-plain in Savannah agro-ecological zone of Nigeria, West Africa *A. M. Tahir, J. N. Briska and B. Usman*
	Impact of irrigated agriculture on soil properties of arable land in Jhunjhunu district of Rajasthan *R. S. Yadav, Mahesh Kumar and P. Santra*
	Assessment of nutrient ratios of sugarcane under various soil quality zones to maximize the productivity in Theni district,Tamil Nadu *B.Bhakiyathu Saliha and K. Jeevika*
	Use of agro-industrial wastes for improvement in soil health and sustainable farming system *A. S. Yadav, Sanjeev Kumar and Bijendra Singh*
	Assessment of soil-humus stability in a long term integrated nutrient management experiment *Nayan Ahmed, T.J. Purakaystha, Ruma Das, S.C. Datta and Sunanda Biswas*
	Status of soil organic carbon recovery under different fallow periods of shifting cultivated sites in Central Eastern Ghats, India *H. C. Hombegowda, Praveen Jakhar, Karma Beer and M. Madhu*
	Effect of diverse re-usable organic materials on bioavailability of cadmium, lead and zinc – the pot scale experiment *Collins Amoah-Antwi, Jolanta Kwiatkowska-Malina, Ewa Szara, Steve Thornton and Owen Fenton*
	Restoration of soil functions by cyanobacterial inoculation of surface: Building strategies to overcome the current practical challenges under field conditions *Yolanda Canton, Raúl Román, Beatriz Roncero-Ramos, Emilio Rodríguez-Caballero, Borja Rodríguez-Lozano, Emilio Rodríguez-Caballero and Sonia Chamizo*
	Influence of zinc oxide nanoparticles on saffron yield and nutrient composition in north west Himalayas *Rythem Anand, Madhulika Bhagat and Anil Sharma*
10:45-11:00	**TEA/COFFEE BREAK**
10:00-11:30	**POSTER SESSION X**
13:00-14:00	**LUNCH**
14:30-16:00 HALL-1	**VALEDICTORY FUNCTION**
16:00-16:30	**TEA/COFFEE BREAK**

A.P. Shinde Symposium Hall, NASC complex
Hall 1- Lecture Hall NAAS (Ground floor), NASC complex
Hall 2- Lecture Hall NAAS (Second floor), NASC complex
Poster Session I will be at basement, A.P. Shinde Auditorium and others at NAAS

POSTER SESSIONS

PROGRAMME

International Conference on "Soil and Water Resources Management for Climate Smart Agriculture, Global Food and Livelihood Security"

5-9 November, 2019

NASC, New Delhi, India

POSTER SESSION I: Soil Degradation Assessment and Remediation

Session Code: SD

November 5, 2019 (16:00-17:30)

Venue: Basement (A.P. Shinde Symposium Hall, NASC complex)

	Title and Authors	Poster No
1.	Long term impact of soil and water conservation measures on physical, chemical and biological properties of laterite soils of west coast of India *Sujeet Desai and Gopal Ramdas Mahajan*	SD-01
2.	Agriculture Resource Inventory' a subset of Natural Resource Inventory *Mukul Singla, Sanyogita Andreas, Chirag Parikh, Nikhil Toshniwal, Sudhir Silwal, Gaurav Singh, Abhinav Prakash, Ankit Gupta, Arnav Puri and Vijai Kurian Mathew*	SD-02
3.	Research on the Source of Sediment Using 137 Cs Tracing Method—A case study for the Yangou Basin Jiangxi, China *Zou xiang*	SD-03
4.	Land use classification of micro watersheds near Dediapada in Narmada district using remote sensing and GIS *M.H. Fadadu, D. K. Dwivedi and P.K. Shrivastava*	SD-04
5.	The influence of meteorological conditions in winter period on the soil erodibility and wind erosion vulnerability *Jana Podhrázská, Josef Kučera, Petr Karásek, Jana Konečná and Hana Středová*	SD-05
6.	Estimation of runoff using rational method from the characterized micro-watersheds in the Navsari Agricultural University campus *Nilam Surve and P. K. Shrivastava*	SD-06
7.	Transport of matters evoked with erosion in a small agricultural catchment *Jana Konečná, Petr Karásek, Josef Kučera and Jana Podhrázská*	SD-07
8.	Soil Erosion estimation using Universal Soil Loss Equation and Geographic Information Systems of Yarehalli Micro-watershed in Channagiri taluk Davanagere District, Karnataka *Aruna, K. T., Rajashekarappa, K. S., Chikkaramappa, T., Ashok H.G. and Kadalli, G. G.*	SD-08
9.	Conservation practices for checking soil erosion and improving crop productivity under *jhum* cultivation in north eastern hill region of India *Narang Ampi and Sanjay-Swami*	SD-09
10.	Determination of soil erodibility index for Ri-bhoi district of Meghalaya *Manish Olaniya, P.K. Bora and Sanjay-Swami*	SD-10
11.	Influence of lime on soil physico-chemical properties in acid soils of upper Brahmaputra valley zone of Assam *Lekhika Borgohain and Danish Tamuly*	SD-11
12.	Extent, causes and restoration of land degradation *S. Firdous, T. Parthasarathi, V. Meenakshi and B. K. Agarwal*	SD-12
13.	GIS aided identification of arsenic vulnerable zones for possible mitigation using biochar in rice ecosystem of Central Brahmaputra Valley Zone of Assam, India *Prarthana Priyom Hazarika, I.H.Thakuria and B.K.Medhi*	SD-13
14.	Photocatalytic activity of methylene blue using zinc nanoparticles synthesized from Eucalyptus lanceolatus leaf extract *Pooja Sharma and Madhulika Bhagat*	SD-14
15.	S-oxidisers: An alternative approach for sodicity reclamation *Arvind Kumar Rai, Nirmalendu Basak, Harshpreet Kaur, Parul Sundha, R.L. Meena, R.K. Yadav, P.C. Sharma, S.K. Jha, U.R. Khandkar, K.S. Bangar, Subedar Patel, Ankit Goswami, Sanjay Kumar, Amit Kumar, R.V. Jasra, Chintansinh Chudasama, Prakash Kumar, Kalpesh Sidhpuria, Sachin Rawalekar, Jyothirmayi Kumpatla and Hemant Katti*	SD-15

16.	Ephemeral gully erosion a serious problem of soil degradation in the Czech Republic *Miroslav Dumbrovský and Veronika Sobotková*	SD-16
17.	Evaluation of buffer lime requirement determination methods for acid soils of Jorhat district of Assam *Lekhika Borgohain, Danish Tamuly, Nilay Borah, Samiran Dutta and Ramani Kanta Thakuria*	SD-17
18.	Prediction of runoff and sediment yield from watersheds of Chambal basin, India *Sharmistha Pal, V.K.Bhatt and A.K.Tiwari*	SD-18
19.	Productivity, water use efficiency, splash loss and economics of sorghum (*Sorghum bicolor* L.) based intercropping system under rainfed condition *U.D. Awasthi, P.N. Yadav, Ranjeet Kumar, Rahul Ranjan, Rohit Kumar and P.K. Mishra*	SD-19
20.	Rapid detailed spatial soil erosion mapping and risk assessment in Shivalik hills, Punjab *N.S. Gahlod, R.L. Meena, Sonam Binjola, S.D. Dhargawe, Ravi, Devinder Kumar, Ravi Gautam, Ravindra Kulkarni and Rajni Taneja*	SD-20

POSTER SESSION II: Water Resource Conservation and Management

Session Code: WM

November 6, 2019 (10:30-13:30)

Venue: Ground Floor, NAAS, NASC complex

	Title and Authors	Poster No
1.	Selection of water harvesting structures with suitable sites in Yarehalli Micro-watershed of Davanagere district using GIS and RS applications *Shivaraj, S. Rajashekarappa, K. S. Rajesh kumar, Ashoka, H. G. Chikkaramappa, T. and Nithin, G. P.*	WM-01
2.	Soil moisture sensing techniques for scheduling irrigation and their limitations in salt affected soils *Atul Kumar Singh, Ajay K. Bhardwaj, C. L. Verma, V. K. Mishra, Anju K Singh and Sanjay Arora*	WM-02
3.	Pyrolysed biomass reduces the adverse effects of saline water irrigation on crop yield and soil functions *Manpreet S. Mavi, Gurpreet Singh and O.P. Choudhary*	WM-03
4.	Response of irrigation and nitrogen level on yield, water productivity and profitability of Cluster bean (*Cyamopsis tetragonoloba*) *Rakesh Kumar, N.K. Pareek, V.S. Rathore and Vinay Nangiya*	WM-04
5.	Influence of sowing time on productivity and thermal utilization of mustard (*Brassica juncea*) varieties in arid region *N.K. Pareek, Anand Kumar and Sitaram Kumawat*	WM-05
6.	Daily Reference Evapotranspiration Estimation Using Artificial Neural Networks *Annu Rani, Sushma Tamta, Dheeraj Kumar*	WM-06
7.	Spring Water Management for Fulfill Drinking and Irrigation Requirement in North East, India *Prem Ranjan, Pankaj Kumar Pandey, Pema Tshering Lepcha*	WM-07
8.	Identification of rainfall probability distribution for Navsari, Gujarat *D. K. Dwivedi, P. K. Shrivastava and M. H. Fadadu*	WM-08
9.	Water harvesting in kharif fallow for augmenting ground water recharge *M. K. Awasthi and Deepak Patle*	WM-09
10.	Trend analysis of precipitation data and its utilization for water harvesting strategies *Pargat Singh, Pooja Gupta Soni, Anamika Sharma and A.K. Mishra*	WM-10
11.	Impact of Fertigation on Soil Nutrient Dynamics in *Dalbergia sissoo* tree plantations *R.K.Kaleeswari ,Pema Yoden Bhutia and A.Balasubramanian*	WM-11
12.	Enhancement in water use efficiency and economic feasibility of reusable plastic bags mulching roll for growing rabi onion under drip system of irrigation *Chandrakali Banjare, Jitendra Sinha and Khomendra Sahu*	WM-12
13.	Effect of different soil and water conservation practices on soil and water quality in the adopted village ponds of north - western Himalayas *Vivak M. Arya, Vikas Sharma, Ajay Thakur and P.K. Rai*	WM-13
14.	Extreme weather associated sediment load and its influences on water quality of water storage reservoir in northeastern China: a case study *Mingzhong Hu and Xiaoyu Wang*	WM-14
15.	Effect of Moisture Conservation and Irrigation Scheduling on WUE and NUE of Linseed under Varying Fertility Levels *Anoop Kumar Devedee, R.K. Singh, R.N. Meena, Kartikeya Choudhary Mehjabeen, Tikendra Kumar Yadav and Ashvin Meena*	WM-15

16.	Crop residue mulch and irrigation regime effects on profile moisture and productivity of zero-till lady's finger grown in sequence with garden pea *Anchal Dass, G.A. Rajanna, L.K Idnani, Shri Dhar, V.K. Singh and Susama Sudhishri*	WM-16
17.	Water and energy conservation through SPV linked micro irrigation system *Gaurav Singh, Neelam Patel, Mairaj Hussain and Sumit Pal*	WM-17
18.	Research on the response of peach tree root soil to drip irrigation in coastal saline-alkali land *Ye Suigao Liu Hong and Zheng Shizong*	WM-18
19.	Interactive Effect of Irrigation and Nutrient Management on Yield and Water Use Efficiency of Cowpea *Anirban Bhowmik, R.Ray*	WM-19
20.	Water saving technologies for increasing on farm water use efficiency in irrigated commands for climate smart agriculture *S. Annapurna, B. Krishna Rao, K. Sunitha, G. Sudheer Reddy*	WM-20
21.	Use of wetted front radii for estimation of unsaturated hydraulic conductivity function of soil *Rohit Pratap Ojha, Chhedi Lal Verma, D. M. Denis and V.K. Mishra*	WM-21
22.	Variation in soil hydraulic properties of Benggang slopes in the hilly granitic regions, south China *Jinwen Xia, Chongfa Cai, Yujie Wei, Yang Zhou, Jingyao Gu, Yi Xiong, Xiaoquan Zhou*	WM-22
23.	Effect of Using Different Ratios of Saline and Non-saline Water through Pitcher Irrigation with Tillage under Tomato Production in an Coastal Soil of West Bengal *Anwesha Sarkar, P. K. Tarafdar and S. K. De*	WM-23
24.	Evaluation of circulated and non-circulated hydroponic systems for growth, yield and available nutrients of leafy vegetables at cold desert Ladakh region *Kaushal Kumar, Vivek Tiwari, Thupstan Tsewang, Somen Acharya, Narendra Singh and O.P. Chaurasia*	WM-24

POSTER SESSION III: Climate Smart Techniques for Sustainable Agriculture

Session Code: CS

November 6, 2019 (10:30-13:30)

Venue: Ground Floor, NAAS, NASC complex

	Title and Authors	Poster No
1.	Conservation tillage potential for reducing CO_2 emission in paddy and increasing soil organic carbon in acidic soil of Meghalaya *Muddana Sri Sai Charan Satya and Sanjay-Swami*	CS-01
2.	Integrated Nutrient Management as a stable practice for improving crop productivity and sequestering soil organic carbon in the context of rising temperature scenario *Sumayya S., Thulasi,V., Sandeep and Moossa P.P.*	CS-02
3.	Development of a new protocol to estimate phosphorus under organic production system for adapting climate change *Buddhadev Sarkar and Niharendu Saha*	CS-03
4.	Soil Organic Carbon Variability in the Foothill Himalayas *Vikas Sharma, Vivak M. Arya, Tejbir S. Buttar and Puja Gupta*	CS-04
5.	Nitrogen mineralization and chemical properties in soil as influenced by rice stubble management *Suravi Nandi, R. Barua, M. Saikia, H. Saikia, P. Kakati, A. Das and Nilay Borah*	CS-05
6.	The three principle of conservation agriculture vis a vis Soil organic carbon: Evidence from Western Indo-Gangetic Plains of India *Hari Sankar Nayak, C. M. Parihar, S. L. Jat, M. L. Jat, B. Rana, K. Patra and V. K. Singh*	CS-06
7.	Carbon sequestration potential of six major nutrient management systems for rice-wheat in Indo-Gangetic plain *Ajay Kumar Bhardwaj, DeepikaRajwar, Sharif Ahamad and Bhumija Kaphaliya*	CS-07
8.	Yield capacity, water use efficiency, root development and economics of linseed by varieties and fertility under rainfed condition *U.D. Awasthi, P.N. Yadav, K.K. Maurya, Rahul Ranjan, Rohit Kumar and P.K. Mishra*	CS-08
9.	Performance Evaluation Of Biomass In Combustor For Turmeric Drying *Pankaj Dabhi, Mayank Fadadu and D.K. Vyas*	CS-09
10.	Effect of biochar application on soil carbon dynamics and crop productivity in a dry tropical cropland of south India *Mayuko Seki, Soh Sugihara, Hidetoshi Miyazaki, Muniandi Jegadeesan and Haruo Tanaka*	CS-10

11.	Assessment of Climate Change Impact on Crop Water Requirements in Narsinghpur in 2060 using CROPWAT Model *Vinay Kumar Gautam and Mahesh Kothari*	CS-11
12.	Enhance the achievement of national food security by climate smart agriculture *Uzma Rashid, Sheikh Muzaffar Ahmad, Hilal Malik and Aoufa Mushtaq*	CS-12
13.	Carbon sequestration under various rice based cropping systems in rainfed rice ecologies under fertigation *Suman Lata and Anshuman Kohli*	CS-13
14.	Effort to mitigate climate change through legume intercrops in sisal plantation for the drier plateau region of Odisha *S. Sarkar , M.S. Behera, A.K. Jha, A.R. Saha, B. Majumdar and R. Saha*	CS-14
15.	Evaluation of mitigation potential of precision nutrient management through mitigation option tool in Eastern India *Anjali, V. Venkat Ramanan, Ajay Kumar Mishra and Sheetal Sharma*	CS-15
16.	Seed Biopriming with PGPR for climate-resilient agriculture *Mehjabeen, Anoop Kumar Devedee, A. Rakshit and Mahendra Singh*	CS-16
17.	Climate smart Forestry for green environment *S.C. Tiwari*	CS-17
18.	Land and water management for the Climate-Smart Agriculture *Uzma Rashid, Sheikh Muzaffar Ahmad, Hilal Malik and Aoufa Mushtaq*	CS-18
19.	Biochar stability and interactive soil carbon priming: implications for carbon sequestration and climate change mitigation *Bhupinder Pal Singh, Yunying Fang, Manpreet Singh Mavi and Lukas Van Zwieten*	CS-19
20.	Identification of Contingent Crops for Delayed Sowing under Changed Climate in Dryland Agriculture *Madam Vikramarjun*	CS-20
21.	Optimization of elevated CO_2 levels and nutrient management for lowland rice ecosystem *R.K. Kaleeswari*	CS-21

POSTER SESSION IV: Land Use Planning and Management for Food and Livelihood Security

Session Code: LU

November 06, 2019 (16:00 to 17:30)

Venue: Ground Floor, NAAS, NASC complex

	Title and Authors	Poster No
1.	Soil Chemical Properties In Irrigated And Rainfed Cotton Growing Belt Of South Gujarat *S. M. Bambhaneeya, A. Das and V.P.Usadadia*	LU-01
2.	Soil Test and Target Yield Based Integrated Nutrient Management on Jute Fibre Yield, Agronomic Efficiency and Soil Properties in Gangetic Alluvium Soil of West Bengal *A.R. Saha, B. Majumdar, S.P. Majumdar, Mukesh Kumar and Alka Paswan*	LU-02
3.	Studies on Agricultural Soil of District Saharanpur U.P. *Satya Prakash and Ashok Singh*	LU-03
4.	Pea (*Pisum sativum* L.) performance with residual phosphorus in coal mined heavy metal polluted soil of Jaintia hills, Meghalaya *Vanlalmalsawmi Sailo and Sanjay-Swami*	LU-04
5.	Inventorization of land resources in South Telangana Plateau (Rayalseema) and Eastern Ghat, hot, dry semi-arid eco-sub region, India *M. Chandrakala, R. Srinivasan, B.P. Bhaskar K. Sujatha, Rajendra Hegde and S. K. Singh*	LU-05
6.	Vertical distribution of available and total micronutrients and their relationship with soil properties in different land management units of Kanginhal sub-watershed in Northern dry zone of Karnataka *Ragini S. Patil and P. L. Patil*	LU-06
7.	Fractal characteristics of soil particle composition in different parent material types *XuJiapana,CaiChongfaa,WeiYujiea,WuXinliangc and Yang Bangge*	LU-07
8.	Studies on soil organic carbon as affected by different land uses in Eritrea *MakdaTesfayNuguse, Balwan Singh and Woldeselassie Ogbazghi*	LU-08
9.	Assessment of soil fertility constraints of Tamil Nadu uplands for sustainable soil management *Kalaiselvi B., Lalitha. M., Srinivasan R., Dharumarajan. S., Rajendra Hegde, Anil Kumar, K. S. and S.K. Singh*	LU-09

10.	Rain water harvesting and recycling for sustainable crop production in Kandhamal district of Odisha, India *Ch.Rajendra Subudhi, Sagara Chandra Senapati and Rageswari Subudhi*	LU-10
11.	Mapping of Soil Physico-chemical properties in the Transition Zone of North Western Himalayas of J&K *Vishaw Vikas, K.R. Sharma, Vikas Sharma and P.K. Rai*	LU-11
12.	Mapping of K-pools variability in Soils of North Bihar: A Case Study *Sneh Prabha, S. S. Prasad, S. P. Singh, S. Jha, V. Bharati and Brijesh Kumar*	LU-12
13.	Effect of household waste based vermicompost and fertilizer on major nutrient availability, rice crop yield, nutrient uptake and nutrient use efficiency *Alpana Kusum, Shankar Jha, S. S. Prasad and S. P. Singh*	LU-13
14.	Comparable research of lake water quality and land use in urban and rural areas of Chennai, India *S. Sheik Niyas and S. Dhanasekar*	LU-14
15.	Land Suitability Potentials for Barley Cultivation in The Northern of Syria Using Sys Model *Safwan A. Mohammed, Karam Alsafadi Haidar Ali and Endre Harsanyi*	LU-15
16.	Assessment Of Carbon Fractions Under Different Land Use Systems In Nandipura Mini-watershed of Chikkamagalur District, Karnataka *K. T. Gurumurthy and Jahnavi Katti*	LU-16
17.	Land Suitability Assessment and Land Use Planning for Sustainable Agriculture in Muradihalli Microwatershed in Yadgir District in Karnataka, India *Rajendra Hegde, S.P. Chaitra, G.M. Arpitha, T.N. Somashekar, B.A. Dhanorkar, G. Bardhan, M.B Mahendra Kumar and S.K. Singh*	LU-17
18.	Land resource inventory for assessing the potentials and problems of some subwatersheds in Kalaburgi district, Karnataka, India *B. A. Dhanorkar, K.V. Niranz, Rajendra Hegde, S. Srinivas, Ashok Sindagi, Veerabhadrappa, Kailas Yuvraj, Chetankumar C and S. K. Singh*	LU-18
19.	Soil Organic Carbon Status under Different Land Use Systems of Rachanahalli Subwatershed, Yadgir District in Karnataka, India *Rajendra Hegde, T.N. Somashekar, S.P. Chaitra, G.M. Arpitha, G. Bardhan, M.B Mahendra Kumar, B.A. Dhanorkar, K.V. Niranjana and S.K Singh*	LU-19
20.	Land resource inventory to assess soil suitability for crops using geospatial techniques for Kilgere-1 Micro-watershed, Achattipura sub-watershed Chamarajanagara, Karnataka *T. Chikkaramappa, S.S. Prakash, M.C. Chaithra, G.G. Kadalli, K.T. Aruna and H.M. Vinod Kumar*	LU-20
21.	Soil nutrient characteristics in different land uses of Mengzi Gabin Basin *Changqing ZUO, Bai LI, Zhijie Shan and Yang Yu*	LU-21
22.	Disturbed land monitoring based on unmanned aerial vehicle *Wenlong, SONG and Pengfei DU*	LU-22
23.	Soil physical and physico-chemical properties of soils of Telangana state *E. Narsaiah, J. Kamalakar and Ramprakash T.*	LU-23
24.	Physico-chemical properties as affected by transmission characteristics of the soils of Jorhat district, Assam *Mridupawan Saikia and Dilip K. Patgiri*	LU-24
25.	Farming Situations Based Land Utilization Plan for Kunkuri Block of Jashpur District in Chhattisgarh *M. P. Tripathi, Nidhi Verma and Dhiraj Khalkho*	LU-25
26.	Developing Land resource inventory-based indices for watersheds of Karnataka *Hrittick Biswas, S.L. Patil, A.S. Morade, Suresh Kumar, B.S. Naik, P.R. Ojasvi, Ravi Dupdal, M. Prabhavathi, Ravi K.N., S.S. Shrimali and Pradeep Dogra*	LU-26

POSTER SESSION V: Biodiversity Conservation and Strategic Soil and Water Management

Session Code: BC

November 07, 2019 (11:00 to 13:00PM)

Venue: Ground Floor, NAAS, NASC complex

	Title and Authors	Poster No
1.	Performance of Halophilic Azotobacter and Phosphate Solubilizing Bacterial isolates on wheat crop grown in sodic soil *Ratna Sahay, A. K. Singh, S. Arora, R. C. Maurya, Archana Singh, D. K. Tiwari and Sunil Singh*	BC-01

2.	Microbes mediated salt tolerance management in sugarcane and plant growth promotion *Divya Sahni, Rajesh K. Tiwari, Sangeeta Srivastava, Sanjay Arora and A. D. Pathak*	BC-02
3.	Soil microbial population is the mirror of soil health *Trilok Nath Rai*	BC-03
4.	Nutrient dynamics and enzyme activities during enriched composting with low grade rock phosphate and native nutrient solubilising microbes *N.R. Panwar, R.C. Kasana, M. Saritha, Praveen Kumar and Uday Burman*	BC-04
5.	Reclamation of cement dust contaminated soil using an exotic earthworm species *Eisinia fetida* under laboratory condition *Manjil Sangeeta DungDung and Iswar Baitharu*	BC-05
6.	Resistance and resilience of soil microbial groups in long-term fertilizer experiment against moisture stress *Vishwanath, Sarvendra K., T.J. Purakayastha, S.P. Datta, S.K. Sinha, K.G. Rosin and P. Mahapatra*	BC-06
7.	A Brief Inventory on the Soil of Orchha Wildlife Sanctuary, Madhya Pradesh *Shreya Tripathi and P.L. Uniyal*	BC-07
8.	Study on the hydrological characteristics of biological soil crusts in different desertification ecosystems *Bai Li, Changqing Zuo, Yang Yu, Wei Qin, Zhijie Shan, Zhe Yin and Qiankun Guo*	BC-08
9.	Role of Plant Extracts in Sustainable Agriculture: A Brief Review *Aadil Gulzar, Imran Khan, Azra N. Kamili and Mohammad Aneesul Mehmood*	BC-09
10.	Impact of climate change on biodiversity *Aadil Gulzar and Gouisa Majeed*	BC-10
11.	Assessment of climate smart agricultural practices in north east India *Mayanglambam Victoria Devi and Rajkumar Josmee Singh*	BC-11
12.	Persistance of pretilachlor and pendimethalin residues in rice – mustard – sesbania sequence under Conservation Agriculture System *K. Mahanta, J. Chaudhury, R.K. Parit and J. Deka*	BC-12
13.	Enhancement of Productivity in Rice-Wheat Cropping System through Climate Smart Agriculture *S. K. Singh, R. C. Srivastava, N. K. Singh, Nilanjaya, A. Sattar, V. Kumar and R. Kumar*	BC-13
14.	Sustainable Agriculture For Natural Resource Management and Bio-diversity Conservation *Oyem Taki and Sanjay-Swami*	BC-14
15.	The bio-computational models in flowering plants of agricultural applications towards sustenance *Prakriti Das and Debabrata Das*	BC-15
16.	Floral diversity in the Nongpok Ningthou Chingu Panganba Sacred groves of Andro, Imphal East, Manipur *Menaka Takhelmayum*	BC-16
17.	Evaluation of antagonistic potential of certain plants against root-knot nematode Meloidogyne incognita *Kasturi Goswami and Bina B. Gogoi*	BC-17
18.	Vegetation affects collembolan population of home garden agroecosystems of a rural area *Lakshmi G.*	BC-18

POSTER SESSION VI: Socio Economic Issues in Resources Management for livelihood Security

Session Code: SE

November 7, 2019 (11:00 to 13:00)

Venue: Ground Floor, NAAS, NASC complex

	Title and Authors	Poster No
1.	A survey on Socio-Economic Status and Awareness on Soil Fertility, Soil and Water Conservation Practices in Lakya Sub-watershed of Chikkamagaluru District of Karnataka *B. Yashodhara, K.T. Gurumurthy, Y.S. Ramesha and K.L. Vasudev*	SE-01
2.	Managing Soil without Fertilizers for Rainfed Agriculture in 3 Rural Farming Villages of the Jos-Plateau, Nigeria: Implication for Sustainable Soil Resources of the Area *Kamoli Makanjuola Kazeem*	SE-02
3.	Kinnow Cultivation: Economic Evaluation under Different Irrigation Systems in Rajasthan *N.K. Meena, Sanjay-Swami, R. Bajia, Bazilla Gayas and S. K. Nagar*	SE-03
4.	Integrated Farming System in sisal plantation for enhancing farm income and sustainable Production *M.S. Behera, D. K. Kundu, S. Sarkar and A.K. Jha*	SE-04

5.	Effect of establishment of Vermicompost units and training on soil fertility, productivity and socio-economic status of small and marginal farmers of district Sirohi Rajasthan *R.L. Bhardwaj, L. Vyas and M. P. Verma*	SE-05
6.	Impact and constraints analysis of tribal farm women adoption of nutritional kitchen gardening *V.K. Poshiya, M.V.Tiwari and P. B. Khodifad*	SE-06
7.	Socio- economics constraints of soil and water conservation in Mustariwadi Micro watershed, Raipalli sub watershed in North Karnataka *Ganeshagouda I. Patil, Praveenkumar B. Naikodi, Praveen Jholgiker and Ashok Alur*	SE-07
8.	Preferences and social values for ecosystem services in local ecological management: A case in Karst Basin Yunnan province, China *Wu Xiuqin*	SE-08
9.	Bio-Physical , Environmental and Socio-economic impact of Integrated Watershed Management Programme in Karma micro watershed of Balarampur : A Case Study from eastern plateau (Purulia district) of India *Harisankar Koiri and R. Ray*	SE-09
10.	Optimization of Land and Water Resources for Maximizing Farm Income for Central Narmada Valley *Vinay Kumar Gautam and M.K. Awasthi*	SE-10
11.	Role of women in environmental protection and sustainability of natural resources *Sasmita Tripathy*	SE-11
12.	Fertilizers use status and performance of improved technologies in relation to socio – economic situation of farmers in waterlogged sodic soil of UP *C. S. Singh, V. K. Mishra, C. L. Verma, T. Damodaran and S. K. Jha*	SE-12

POSTER SESSION VII: Policy Interventions in Soil and Water Management for Global Food Security

Session Code: PI

November 7, 2019 (15:00 to 17:30)

Venue: Ground Floor, NAAS, NASC complex

	Title and Authors	Poster No
1.	Level Evaluation Method Study on Design Unit of Soil and Water Conservation Plan for Production and Construction Projects *Lijian Ding and Ruhua Song*	PI-01
2.	Combating Land Degradation by Land Levelling; Implications in Semi-Arid Chambal, India *Padmini Pani*	PI-02
3.	Role of residue farm machinery in maintaining soil health and ecological balance *Vishnu Ji Awasthi, Manpreet Singh, Rajesh Goyal, Rajat Mishra, Rahul Chaudhary, Indrapal Singh, Dilwar Singh Parihar and Mirtunjay Pandey*	PI-03
4.	Assessment of Soil Health Card scheme with a participatory approach – A case study of Palaskhel Village, Maharashtra, India *Swapnil Labade, Shraddha Vekhande, Nilesh Vadgave and Bakul Rao*	PI-04
5.	Sustainable natural resource management through organic agriculture in north-east region of India: Scope and constraints *Sultana Jerifa Ullah and Sanjay-Swami*	PI-05
6.	Study and Application on Conservation Tillage Technology of Rice (*Oryza sativa* L.) Southern China *Tan Xiangru, Ou Yinggang, Yang Dantong, Hu Xueying and Ren Xiaoping*	PI-06
7.	Intercropping in sugarcane a profitable venture among farmers *T.N. Rai, K.N. Rai, Anjali and S.K. Rai*	PI-07
8.	An underutilised space: Role of Gram Sabha in Watershed Development *Saba Ishaq*	PI-08
9.	Entrepreneurship Development through Irrigation System Development –A Case Study of Runni Saidpur Block of Sitamarhi district of North Bihar *S.K. Jain, Ravish Chandra, S. P. Gupta, A.K. Singh and Vinod Kumar*	PI-09
10.	Open and Distance Learning (ODL) in Agriculture *S. K. Yadav and Mukesh Kumar*	PI-10
11.	Grain yield of maize as influenced by irrigation levels and maize genotypes *Sujatha H. T. and S. S. Angadi*	PI-11
12.	Global policy framework for ensuring food, energy and livelihood security *Sachin Singh*	PI-12

POSTER SESSION VIII: Bio-industrial Approaches to Watershed for Food and Livelihood Security

Session Code: BI

November 7, 2019 (15:00 to 17:30)

Venue: Ground Floor, NAAS, NASC complex

	Title and Authors	Poster No
1.	Preparation of preserve from different varieties of aonla (*Emblica officinalis* gaertn.) and their physico-nutritional changes during storage *N.S. Rathore, L.K. Dashora and D.K. Sarolia*	BI-01
2.	Response of organic inputs on nutrient status of soil in potato and turmeric cropping sequence *Anjali Verma, Uday Sharma and Sunil Kumar*	BI-02
3.	Comparative efficacy of FYM and vermicompost on soil physico-chemical and biological properties under cauliflower-tomato production in mid hills of Northwestern Himalayas *Ankush Mogta, J. C. Sharma and Ridham Kakkar*	BI-03
4.	Design and construction of soil conservation structures using wastage materials *B. L Sinha and R. K. Sahu*	BI-04
5.	Watershed development planning through socio-economic survey of Ariyur micro-watershed in Tumkur *Y. M. Gopala, K.P. Naveena, V. Govinda Gowda and T. Chikkaramappa*	BI-05
6.	Soil moisture balance based crop planning in Achathipura sub watersheds of southern Karnataka *N.K.Rajesh kumar, Rajashekarappa, K. S., Shivaraj, S., Ashok, H. G. Chikkaramappa, T.*	BI-06
7.	Water resources scenario of India under climate change *G. N. Gurjar and Sanjay Swami*	BI-07
8.	Assessment of Hypsometric Idiosyncrasy of Small Watersheds in the Upper Ramganga Catchment *Pankaj Kumar*	BI-08
9.	Land and Water Management plan in Dorika watershed *Arunima Gogoi, M.C. Talukdar, A. Basumatary and U. Baruah*	BI-09
10.	Hydrological response to a rainfed agroforestry system with different water conservation practices *Raghav Maurya, Susama Sudhishri, Man Singh, Anchal Dass, Khajanchi Lal, O.P. Awasthi, V.K. Sharma and Archana Suman*	BI-10
11.	Effect of gravity based drip fertigation on growth, yield and quality of okra *P.K. Jamrey, R.C. Purohit and S.S. Lakhawat*	BI-11
12.	Lignocellulose degradation and production of lignin modifying enzymes in solid-state fermentation by *Mucor circinelloides* GL1 *P.A Geethanjali and M. Jayashankar*	BI-12
13.	*Azadirachta indica* (Neem) based agroforestry System in Red and Laterite Zone of West Bengal *Subodh Hansda*	BI-13
14.	Aonla Based Agroforestry System for Western Himalayan Sub Tropics *Sandeep Sehgal and Stanzin Landol*	BI-14
15.	Livelihood diversification through fruit based agroforestry in red and laterite zone of West Bengal *S. Murmu, P. Das, S. Panda and P.K. Dhara*	BI-15
16.	Quantification of soil biological activities vis-a-vis productivity in 206 mango orchards of Maal region in Lucknow, Uttar Pradesh, India for food and livelihood security *Tarun Adak and G. Pandey*	BI-16
17.	Value Addition of Ash Gourd for Doubling the Farmers Income *T.N. Rai, K.N. Rai, Anjali and S.K. Rai*	BI-17
18.	Evaluation of micro watersheds of coastal Navsari *B. N. Bhanderi, P. K. Shrivastava, Dileswar Nayak and D. K. Dwivedi*	BI-18
19.	Bio-resource recycling through integrated farming systems in north eastern region of India *Saphina Mary Kurkalang and Sanjay-Swami*	BI-19
20.	Biomass of different Jerusalem artichoke clones dedicating to green protein production purposes *László KASZÁS, Zoltán KOVÁCS, Judit KOROKNAI, Miklós FÁRI, Éva DOMOKOS-SZABOLCSY*	BI-20

POSTER SESSION IX: Geospatial Techniques and Simulation Modeling for Soil and Water Management

Session Code: GT

November 8, 2019 (10:30 to 12:00)

Venue: Ground Floor, NAAS, NASC complex

	Title and Authors	Poster No
1.	Remote Sensing and GIS based approach for Assessment of Groundwater Vulnerability Zone to pollution in Kharun Watershed *Gaurav Kant Nigam, M.P. Tripathi, S.K. Ambast, J. Sinha and R.K. Mahobia*	GT-01
2.	Estimating roof rainwater harvesting potential using remote sensing and GIS in Onjal, Macchad and Dandi village of Navsari district *D. K. Dwivedi, P. K. Shrivastava, B. N. Bhanderi and Dileswar Nayak*	GT-02
3.	Constitutive model of single root system`s resistance to tensile stress *Lihuachen*	GT-03
4.	Analysis of historical droughts for Tarikere Taluk, Chikkamagaluru district of Karnataka using Standard Precipitation Index *Basamma Aladakatti, K. T. Gurumurthy and Rajashekar D. Barker*	GT-04
5.	Geospatial Approach for Nutrient Management and enhanced crop production Using Remote Sensing and GIS in Chikka Begur Micro-watershed, Chamarajanagar District *Shruti, Y., Chikkaramappa, T., Prakash. S. S., Kadalli, G. G. and Ranjitha, S. N.*	GT-05
6.	Mapping of major and micro nutrients of Haradanahalli micro watershed, Chamarajanagar district using GIS and GPS *Anilkumar, S. N., Prakash. S. S., Arun Kumar, J. S., Vinod kumar H. M. and Dixith, H. V.*	GT-06
7.	Application of RS and GIS in identification of soil fertility constraints of Ballapura micro-watershed, Tumkur district, Karnataka *Arun Kumar, J. S., Anilkumar, S. N., Kadalli, G. G., Chikkaramappa, T. and Shambavi, S.*	GT-07
8.	Analysis of land cover changes and assessment of Drought by using Remote Sensing and GIS- A case study from Anantapur District of Andhra Pradesh *R. Srinivasan, Rajendra Hegde, B.P. Bhaskar, S. Srinivas, K.V. Niranjana, M, Chandrakala, K.S. Karthika, Amar Suputhra and S. K. Singh*	GT-08
9.	Application of remote sensing and GIS tools in land resource inventory for watershed planning in lateritic soils of North Karnataka *Praveenkumar B. Naikodi, Praveen Jholgiker, Ganeshagouda I. Patil and Ashok Alur*	GT-09
10.	GIS and remote sensing approach in identifying ground water recharge zones of Cherial watershed *B. Meghana, Ch. Rakesh, P. Karthik, D. Girish and Ch. Radha Srivalli*	GT-10
11.	soil erosion mapping Alandur block, Perambalur district, Tamil nadu using to Landsat-8 satellite data *Nithya Selvaraju*	GT-11
12.	Comparison of Evapotranspiration Estimates from Satellite Remote Sensing and Fao-56 Approach *Atul Kumar Pal, Kapadiya Janaki C., Karangiya Bhavisha A. and H. V. Parmar*	GT-12
13.	Mapping flood affected area of BudhiGandak river in Bihar with optical and SAR data of Sentinel satellites *Vikas Kr Rai, R. C. Srivastava and S.K.Jain*	GT-13
14.	Model for spatial soil quality assessment and its application using RS and GIS technique *N. S. Gahlod, Devinder Kumar, Jayshree Khuspure, Sonam Binjola, Kusuma Patil and Ravindra Kulkarni*	GT-14
15.	Development of automated drip fertigation system using GSM based controller *Akhila Shiney and Sajeena S.*	GT-15
16.	Empirical Algorithm for Estimating and Monitoring of water quality parameter using Sentinel 2 images: An application to brackish aquaculture *Nishan Raja R., Nedun R., P. Nila Rekha and Soumyabrata Sarkar*	GT-16
17.	Modelling of runoff and soil erosion using SWAT model in Salebhata catchment of Mahanadi basin *B. Mohan and C.R. Subudhi*	GT-17
18.	Simulation model for assessment of hydrologic response in a developing urban catchment *Akram S. Pathan and Milind L. Waikar*	GT-18
19.	Geospatial Modelling of Hydrological Processes Governing Soil Erosion and Soil Quality in a Watershed of Mid Himalaya *Suresh Kumar and B. N. Shashikumar and Justin George K.*	GT-19

20.	TOPMODEL : Rainfall-Runoff Modeling of a Watershed Area using Different Time Scale and Different Topographical Index *Ayushi Trivedi*	GT-20
21.	Satellite data Inputs for Baseline Studies on Water Use Efficiency (WUE) of Vengalarayasagaram Medium Irrigation Project- A case Study *A.Sailaja, K. Yella Reddy, B. Krishna Rao, Ch. Sneha, Shankar Muthyam and. V. Venkateswar Rao*	GT-21
22.	Simulation of water resources in Gundlakamma Sub basin using soil and water assessment tool *Hari N.*	GT-22
23.	Integrated modelling approach for achieving ground water sustainability in the critically depleted regions of Central Punjab, India *Manish Debnath, A. Sarangi and D. K. Singh*	GT-23
24.	Root growth simulation models for Cotton crop grown under specified environment in Saurashtra region of Gujarat *P. S. Jayswal, K. N. Sondarva and G. R. Sharma*	GT-24
25.	Mathematical modeling for summer Sesame grown under varying thermal regimes *K. N. Sondarva, P.S. Jayswal and A.P. Lakkad*	GT-25
26.	Geospatial Technology and its Applications in Sustainable Agricultural Development *Devraj, Munish Kumar and Sumati Omer*	GT-26
27.	Modelling microclimate of a protected structure: a way to precision climate monitoring, management and development *Mahesh Chand Singh, K. G. Singh and J. P. Singh*	GT-27
28.	Application of remote sensing and GIS technique for land and water resources management of farm level *Love Kumar, Dhiraj Khalkho, V.K. Pandey, M. P. Tripathi and Susama Sudhishri*	GT-28
29.	Application of geochemistry and the fingerprinting technique to trace the sources of fine sediment in a mountainous catchment located on the Lower Jinsha River, China *Donghong Xiong, Han wu, Su Zhang and Yong Yuan*	GT-29
30.	Application of ArcSWAT Model for Estimation of Sediment Delivery Ratio at Sub- watershed Level *A. P. Lakkad, K. N. Sondarva and P. K. Shrivastava*	GT-30

POSTER SESSION X: New Paradigms in Soil Health and Nutrient Management

Session Code: SH

November 9, 2019 (10:00 to 11:30)

Venue: Ground Floor, NAAS, NASC complex

	Title and Authors	Poster No
1.	Monitoring of soil quality of pandoga sub watershed Catchment area implemented on Swan river (Una), Himachal Pradesh, India *Bindu Sharma*	SH-01
2.	Adoption of saline soils management practices by the farmers *Shivananda P. Yarazari and S. V. Halakatti*	SH-02
3.	Correlates of Saline Soil Management by the Farmers of Belagavi District *Shivananda P. Yarazari and S. V. Halakatti*	SH-03
4.	Use of urban compost, sewage sludge, poultry manure in brinjal -cauliflower cropping system *Saikumar Rondla and Jeevanrao Kalvakuntla*	SH-04
5.	Bio-char potential for improving crop productivity under acidic soil of north eastern region *Oguboyana Srikanth Yadav and Sanjay-Swami*	SH-05
6.	Soil Fertility Status of Regional Research Station, Kapurthala, Punjab, India *Rajan Bhatt and Paramjit Singh*	SH-06
7.	Phosphorus Adsorption-Desorption Characteristics of Different Layers of Weathered Granite and Effects of Different Soil Properties on Phosphorus Adsorption *Sun Tianyu, Zhang Liping, Fei Kai and Deng Longzhou*	SH-07
8.	Variation in Soil Organic Carbon of Red and Black Soils in Kopal District of Northern Karnataka, India *Rajendra Hegde, G. Bardhan, K. V. Niranjana , M. B. Mahendra Kumar, G. M. Arpitha, S. P. Chaitra, T. N. Somashekar and S. K. Singh*	SH-08
9.	Dynamics of soil nitrogen and phosphorus vis-à-vis nutrient regimes in lowland rice cultivation *Shilpi Gupta*	SH-09

10.	Integrated Nutrient Management in Groundnut (*Arachis hypogaea* L.) in NEH region *Sushree Panda*	SH-10
11.	Attribution of organic carbon fractions and soil aggregating elements in soil aggregation under different land uses in acid soils of Meghalaya, India *P. Helena Chanu, P.K. Bora and Sanjay-Swami*	SH-11
12.	Impact of deforestation on soil fertility and quality *Thokchom Dorenchand Singh and Sanjay-Swami*	SH-12
13.	Direct and residual effect of organic source of nitrogen on rice based cropping system *Tonya G. Momin and Sanjay-Swami*	SH-13
14.	Effect of integrated nitrogen management on fertility status of soil in acid Inceptisol *Sowjanya T. V. , Naorem Janaki Singh and Oguboyana Srikanth Yadav*	SH-14
15.	Multi-nutrient mixtures Sampoorna KAU Multi mix developed for foliar application in rice, banana and vegetables *Thulasi, V., Moossa, P.P., Sureshkumar, P. and Narayanankutty, MC*	SH-015
16.	Ferti-fortification for enrichment of wheat and rice grains with zinc and iron *S.S. Dhaliwal and A. K. Shukla*	SH-16
17.	Potassium dynamics of soil under NaCl-induced salinity over long term saline water irrigation *Snigdha Chatterjee, O. P. Choudhary and B. S. Sekhon*	SH-17
18.	Effect of LCC Based Nitrogen Management in Maize + Ground nut Intercropping and Its Residual Effect on Black gram *B. Arpita, G.C. Malik, Mahua Banerjee and Basudeb Behera*	SH-18
19.	Impact of bio inputs on soil quality and nutrient content of Khasi mandarin (*Citrus reticulata*, Blanco) *Arunima Gogoi, R.K. Kakoty and A.C. Barbora*	SH-19
20.	Experimental study on the pathways of phosphorus loss on the weathered granite sloping land of southeast China *Deng Longzhoua, Zhang Liping, Fei Kaia, Sun Tianyua, Fan Xiaojuan and Ni Liang*	SH-20
21.	Impact of drying-wetting cycles on the soil aggregate stability of Alfisols in south western China *Yujie Wang, Bin Wang and Bin Wu*	SH-21
22.	Impact of integrated Nutrient Management with Mycorrhizal Bio- Fertilizer on Physical and Bio-Chemical Properties of Soil in Planted and Ratoon Crop of Sugarcane *Manjul Kumar and Neeraj Kumar*	SH-22
23.	Status of DTPA-extractable micronutrient in soils of Rajouri District of Jammu region *Renuka, Sarabdeep Kour, Vikas Sharma and Meenakshi Gupta*	SH-23
24.	Response of integrated nutrient management on soil health under ginger-cauliflower cropping sequence in North-Western Himalayas *Ridham Kakar, J. C. Sharma, Ankush Mogta and Jagriti Thakur*	SH-24
25.	Soil nutrient index of mango orchards for better food security and resource utilization *Tarun Adak, G. Pandey and Vinod Kumar Singh*	SH-25
26.	Role of Micronutrients in Fruit Crops *S.K. Yadav, S. Mukherjee and G.P. Jat*	SH-26
27.	Assessment of Soil Quality Indicators under Rice Ecosystem of Assam using statistical approaches *Anjuma Gayan and D. J. Nath*	SH-27
28.	Cyanonbacteria as priming options to improve soil quality and enhance seedling vigor of elite maize inbreds *Vikas Sharma, Radha Prasanna, Firoz Hossain, Vignesh Muthusamy, Lata Nain, Shrila Das, Yashbir Singh Shivay and Arun Kumar*	SH-28
29.	Effect of inorganic and organic nitrogenous fertilizers on soil nutrient status, plant growth and yield of apricot (*Prunus armeniaca* L.) *Mohit, M. L. Verma, Jagriti Thakur, Ridham Kakar and Ajender*	SH-29
30.	Relationship between Langmuir adsorption parameters and various soil properties of different textured soils of Himachal Pradesh *Ajay Sharma and N. K. Sankhyan*	SH-30
31.	Possible utilization of organics and bio-organics with nitrogen fertilization on growth and productivity parameters of tomato in relation to physico-chemical and biological properties of soil *Sartaj A. Tiyagi, Hari Raghu Kumar, Rose Rizvi and Irshad Mahmood*	SH-31
32.	Response of vermicompost and levels of nitrogen on growth, yield and yield attributes in pea (*Pisum sativum* L.) rhizosphere *Laxman Ram, Arun Kumar Jha, Shriman Kumar Patel, Amarjeet Kumar and Ajeet Kumar and Anshuman Kohli*	SH-32

33.	The Residual Effect of Fine Glauconite on The Second Successive Crop (Faba Beans) grown in sandy soils of Egypt *M. A. Morsy, O.H. Darwish and N.G. Eldawwy*	SH-33
34.	Effect of Water and Nitrogen levels on Yield and Water Productivity of Cotton and Cluster bean in Indira Gandhi NaharPariyojana (IGNP) Stage – I *Rakesh Kumar and N.K. Pareek*	SH-34
35.	Conservation Agriculture for Sustaining Soil Health and Crop Productivity *Rakesh Kumar, N. K. Pareek and Sweta Shikhta Mahapatra*	SH-35
36.	Assessing the Effect of Irrigation and Integrated Nutrient Management under Bitter Gourd Production in New Alluvial Zone of West Bengal *Subam Khawas and R.Ray*	SH-36
37.	Effect of biochar on bioaccumulation of chromium in rice (*Oryza sativa* L.) *Sarvjeet and P. K. Sharma*	SH-37
38.	The impact of traditional land use management on soil quality in Northeastern Himalayas (India) *Gaurav Mishra and Avishek Sarkar*	SH-38
39.	Impacts of chiselling on soil properties and direct seeded rice yield *M. S. Kahlon, C. B. Singh and Madhu Dhingra*	SH-39
40.	Soil Quality Under Intensive Jute Growing Areas of Assam for Resilient Agriculture *Sabyasachi Mitra, A.S.N. Zaman, S.P. Mazumdar, D. Barman and R. Saha*	SH-40
41.	Agronomic Measures for Soil and Water Conservation in North- Western Rajasthan *Shri Rakesh, N. K. Pareek, R. C. Bairwa and Sundar Anchra*	SH-41
42.	SPAD meter can be the promising tool for efficient nitrogen management in wheat *Mainak Ghosh, Ved Prakash, Swraj Kumar Dutta, Arnab Roy Chowdhury, Sanjeev Kumar Gupta and Anshuman Kohli*	SH-42
43.	Effect of calcium nitrate on flower drop and yield of Byadgi chilli as influenced by foliar application of calcium nitrate in a Vertisol *Kavitha P. Jadhav, B. I. Bidari, G. B. Shashidhara and M. S. Venkatesh*	SH-43
44.	Potassium management for enhanced rice growth and yield in eastern India *Garima Singh and Shambhu Prasad*	SH-44

A.P. Shinde Symposium Hall, NASC complex; **Hall 1**- Lecture Hall NAAS (Ground floor), NASC complex
Hall 2- Lecture Hall NAAS (Second floor), NASC complex