#### भारत सरकार



#### Government of India

सुपारी और मसाला विकास निदेशालय

#### Directorate of Arecanut and Spices Development

कृषि एवं किसान कल्याण मंत्रालय/Ministry of Agriculture & Farmers Welfare

(कृषि, सहकारिता एवं किसान कल्याण विभाग)

(Department of Agriculture, Co-operation & Farmers Welfare) कोलिकट /Calicut 673 005 केरल /Kerala

No. F.18-2(35)/2008-Dev.

Dated the 25<sup>th</sup> January, 2017.

To

The Director of Research & Dean, Faculty of PG Studies, Navsari Agricultural University, Navsari Gujarat Pin - 396 450

Sub: National seminar on 'Natural Resource Management for Horticulture crops under changing climatic conditions' with special reference to drought management of plantation crops and spices on 16 - 17 March 2017 at CWRDM, Kozhikode, Kerala - reg

Sir.

The Centre for Water resources Development and Management, Kozhikode in association with the Directorate of Arecanut and Spices Development is organizing a national seminar on 'Natural Resource Management for Horticulture crops under changing climatic conditions' with special reference to drought management of plantation crops and spices on 16 - 17 March 2017 at CWRDM, Kozhikode, Kerala. The Seminar will have eight themes and offer interdisciplinary plenary lectures, invited talks, parallel oral and poster presentations under these themes. Research contributions are invited for the seminar from students / research scholars / professionals and scientists of your esteemed institute.

It is requested that wide publicity may be given for the seminar among various faculties, research stations and colleges of your University/Institute. We will be thankful, if you could give a good spread to this important event through your excellent relations and means. The brochure of the Seminar is enclosed herewith for your reference.

Yours faithfully,

(Homey Cheriyan)
Director

Encl: As above.

Telephone: Office - 0495- 2369877, Director - 2765501, 2369888 (R)

Fax: 0495 - 2765777 E Mail: spicedte@nic.in

Director of Research & Dean P N.A.U. Navser Cuo NATE L 22 22 23

# CENTRE FOR WATER RESOURCES DEVELOPMENT AND

ocated 13 km east of Kozhikode (Galicat) city. The Centre has a crulli-disciplinary team R&D institution established by the Government of Kerala in 1978. It is an institution of Kerala State Council for Science, Technology and Environment (KNCS LE), CWRDM is of Scientiss, Technical staff, Project staff and Administrative staff, A number of out by CWRDM under various research projects funded by different national and Centre for Water Resources Development and Management (CWRDM) is a mentier environmental management, isotope hydrology, land use effects, etc., have been carried scientific studies on hydrology, irrigation, dramage, soil, crops, water quality, international agencies.

# DIRECTORATE OF ARECANUT AND SPICES DEVELOPMENT

1 "April 1966 at Calicut, Kerala under Ministry of Agriculture, Government of India to Directorate is responsible, for coordinating and monitoring of development programs on spices under National Horticulture Mission (NHM) launched during 2005-06 to promote The Directorate of Arecanut and Spices Development (DASD) was established on took after the developmen; of spices and arecanut at national level. Presently, the holistic growth of the horieulture sector in the country.

## ORGANIZING COMMITTEE

CHAIRMAN: Dr. E.J. Joseph, Executive Director: Fe, CWRDM

CO-CHAIRMAN: Dr. Homey Cherryan, Director, DASD

#### CONVENERS

- Dr. U. Surendran, Scientist, Water Managemer L(Agri) Division, CWRDM
  - Dr. Grirsh Gopinath, Semor Scientist, Geomatics Division, CWRDM
- Er B. Vivek, Scientist B, Environmenta, Studies Division, CWRDM
  - Er. P. J. Jainet, Scientis, B. Surface Water Division, CWRDM

- Dr. A.B Anitha, Head, Surface Water Division, CWRDM
- Er Bahn Marhew, Head, Training, Education & Extension Division, CWRDM
  - Dr. V. P. Dinesan, Head, Geomatics Division, CWRDM
- Dr. P. S.Harikumar, Head, Water Quality Division, CWRDM
- Er P. Jayakumar, flead. Environmental Studies Div.sion, CWRUM
- Er. C. M. Sushariti, Head, Grour d Water Division CWRDM

  Dr. C. Umikrishnan Warrier, Head, Isotope Hydrology Division, CWRDM
  - Er G.K.Ambili, Head, CWRDM Sub Centre, Neyyattinkara

Dr. Celine George, Head, CWRDM Sub Certre, Manimalakunnu

- Dr. George Abe, Head, CWRDM Sub Centre, Kotteyam Er P. K. Abdulla, Senior Principal Seventist, Surface Water Division, CWRDM
- Dr. R. Madhaya Chandren, Senior Principal Scientist, Water Management (Agri) Fr. C. Dinil Sony, Senior Principal Scientist, Surface Water Division, CWRDM
  - Division, CWRDM
    - Dr. Femina, Deputy Director, DASD
- Shri. Babulal Meena, Assistant Director, DASD

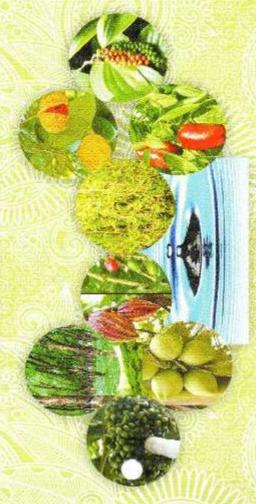
# National Seminar on

#### HORTICULTURAL CROPS UNDER CHANGING NATURAL RESOURCES MANACEMENT FOR CLIMATIC CONDITIONS

(with special reference to Drought Management of Plantation Crops and Spices)

On March 16-17, 2017

Venue: Centre for Water Resources Development and Management, Kozhikode, Kerala





Organized by

Development and Management Centre for Water Resources

An Institution of Kerala State Council for Science, Technology and Environment) Kozhikode, Kerala-673571



in association with

Department of Agriculture, Co-operation & Farmers Welfare Directorate of Arecanut and Spices Development

Ministry of Agriculture & Farmers Welfare, Govt. of India

## ABOUT THE SEMINAR

and space, potentially increasing rainfall variability resulting in more heavy mensoons and more frequent floods and droughts, and changing the water conflicting or inadequate to manage the scarce land and water resources on deteriorating, and policies, institutions, and available information are often agricultural productivity benefits of the green revolution have run their course. so on. Pressure on natural resources is high and increasing, and the improved Changing Climatic Conditions with special reference to Drought Management of Plantation Crops and Spices" (NRMHCCC) at CWRDM Campus, of spices. Despite severe challenges, there is good potential for improvement. In conditions. Moreover, these spices mostly are grown as homestead and manner to meet the ever increasing demand and also under changing climatic including spices. There is a need to increase spices production in a sustainable pests and diseases. Productivity is declining in many countries for major crops requirements, climatic suitability and yield of crops, as well as the incidences of variability and climate change resulting in impacts on water availability in time which many rural livelihoods depend. Additional stresses come from climate sectors. Groundwater levels have been dropping down, water quality is Soil fertility has declined, while demand for water and energy is increasing in all interests, policies, politics, geographical boundaries, economic implications and resources management also has to manage various stakeholders and their All these are cynamic and interrelated. In addition to the natural systems, natural ecological cycles, hydrological cycles, climate, animals, plants, geography etc. Natural resources management issues are inherently complex as they involve the the holistic management should be there in place for improving the productivity intercropping system with plantation crops like coconut and arecanut and hence level seminar on "Natural Resources Management for Horticultural Crops under Management (CWRDM), Kozhikode is planning to organize a two day national view of these facts, the Centre for Water Resources Development and Kezhikode, Kerala, India.

#### HEARS

The seminar will have eight themes focusing on climate change impacts and mitigation and offers inter disciplinary plenary lectures, invited talks, parallel oral and poster presentations

Theme 1: Land and Water Resources Management

Therre 2: Soil-Water-Plant-Climate Interrelationships

Theme 3: Drought Management

Theme 4: Crop Management for Horticultural Crops (Plantation Crops and Spices)

Theme 5: Irrigation Management for Horticultural Crops

Theme 6: Integrated Nutrient Management

Theme 7: Integrated Pest Management

Theme 8: Policies for Sustainable Development of Agriculture

# SUBMISSION OF ABSTRACTS

Intending authors are requested to submit their research contributions by e-mail in the form of an extended abstract (about 500 words) before 5. February 2017 to nrmhece@ewrdm.org. Abstracts should be in MS Word - A4 size, single spaced and 12 Times New Roman fant with full title, and must include, name of author(s), affiliation(s), mailing address, phone, fax and e-mail of all authors. Abstract will be peer reviewed and decision on acceptance of abstract will be intimated to the authors through the registered e-mail id. Full manuscripts of accepted abstracts must be submitted by e-mail on or before 25th February 2017. Guidelines on the preparation of full manuscript and registration form are available in the website (www.cwrdm.org). Selected full papers will be published as Proceedings / Special issue in a peer reviewed journal. If you have any queries or require further information, please send an email to: nrmhece@ewrein.org.

#### IMPORTANT DATES

Submission of Abstracts : 5" February, 2017

Acceptance of Extended Abstracts : 15" February, 2017
Submission of Full Paper : 25" February, 2017

Submission of Full Paper : 25" February, 2017 Seminar Date : March 16-17, 2017

### REGISTRATION FEES

Students/Research Scholars : Rs

Professionals/Academicians : Rs. 1000/-

Registration Fee may be remitted as Demand Draft drawn in favour of "Executive Director, CWRDM", payable at Kozhikode (Calicut) and sent to, Chairman, NRMHCCC, CWRDM, Kunnamangalam PO, Kozhikode-673571.

Kerala, India. Alternatively the payment may be made by Electronic Fund Transfer (NEFT/RTGS) to SB A/C No. 557269311 with Indian Bank, Kallai Road Branch, Kozhikode with IFSC No. 1D1B000K008.

### ACCOMMODATION

Good hotel accommodation at affordable rates is available in the vicinity of CWRDM campus or in and around Kozhikode. All the participants are requested to send their itinerary for attending the seminar by 28" February 2017. Local transport will be provided to the registered delegates.