

## BACKGROUND

India has 76% of its total area under the drylands consisting of arid, semi-arid and dry subhumid regions. Drylands play a dominant role in agricultural production of the country, contributing about 42% of the total food grain production, and more than 90% of sorghum, millets, groundnut and pulses production. A large population of livestock with many of the best and hardy breeds of animals is its another strength. However, land degradation due to climatic peculiarities and high human and livestock pressures on the natural resources is a major concern due to its impact on biological production potentials of the land. The rate of natural resource exploitation and resultant land degradation is much faster in the fragile drylands, which need greater attention of the researchers, technocrats and policy planners. The hot arid areas are the most vulnerable due to their erratic rainfall and limited land resources vis-a-vis high population densities. Although scientific research during the last few decades has led to many technologies and strategies for sustainable management of the drylands, the information still remains scattered. Meanwhile the threats of climate change are making additional demands of understanding of the changing variables and means of tackling the adverse effects of the changes or reaping benefits of any new opportunities.

The states of Gujarat and Rajasthan together cover more than 84% of the total hot arid region in India, a large part of which lies in Kachchh district (45,652 km<sup>2</sup>) of Gujarat, covering 13% area of the hot arid zone. A rugged terrain with shallow soil, low and unpredictable rainfall, and vast saline Ranns make the livelihood based on agriculture difficult in Kachchh, which get compounded due to excess withdrawal of groundwater, over-grazing, salinity ingress and growing threat of industrial pollution. Periodic earthquakes make the district all the more vulnerable to degradation processes. Kachchh district also has large wastelands awaiting proper conservation.

Considering the typical nature of the agriculture-related problems of arid Gujarat, Central Arid Zone Research Institute opened one of its Regional Research Stations at Kukma-Bhuj, which is completing 25 years of its dedicated service in evolving region-specific technologies for arid Gujarat. On this historic occasion it is planned to organize a three-day National Symposium on **Resource Utilization through Integrated Farming System and Biodiversity Conservation in Drylands** at Bhuj from 20 to 22 December, 2011.

## OBJECTIVES

The aim of the National Symposium is to bring the scientists, academicians, policy planners and progressive dryland farmers on a single platform to share their ideas, thoughts and strategies, for developing among the stakeholders an awareness of the emerging problems and the need for adopting resource conservation technologies for a sustainable future of the fragile drylands. It proposes to exchange knowledge among the experts on the understanding of the emerging



## CALL FOR PAPERS

Extended abstracts are invited from researchers, academicians, consultants and students for oral and poster presentation. The extended abstracts (not more than 250 words; Times New Roman; 10.5 font size; single line spacing), with a short title, name, affiliation and mailing address of the author(s), can be sent preferable by email to [ns\\_cazri\\_bhuj@rediffmail.com](mailto:ns_cazri_bhuj@rediffmail.com). On acceptance of the extended abstracts, full-length papers will be invited. The last date for receipt of abstract is 31.10.2011.

## REGISTRATION FEE

Type of Participation	Registration fee	
	Indian Delegate	Foreign Delegate
Faculty (up to 31.10.2011)	Rs 2000.00	US\$ 200
Faculty (after 31.10.2011)	Rs 2500.00	US\$ 250
Research students (up to 31.10.2011)*	Rs 1000.00	US\$ 100
Research students (after 31.10.2011)*	Rs 1500.00	US\$ 150
Accompanying person	Rs 1000.00	US\$ 100

\* Submission of certificate of research studentship from Head of Department and identity card is mandatory.

Payment should be made through Demand Draft in favour of "Organizing Secretary, NSDL-2011, payable at Bhuj.

## ACCOMMODATION

On request, accommodation for delegates can be made on payment basis at Guest Houses and Hotels within the city.

## WEATHER

The weather of Bhuj in the month of December is cool and pleasant. The temperature ranges from 12-25°C.

## CORRESPONDENCE

For further details about symposium, please contact:

**Dr. Devi Dayal, Organizing Secretary NSDL-2011** and Head, Regional Research Station, CAZRI, Kukma, Bhuj 370 105, Gujarat  
Telefax.: 02832-271238 (Office); Mobile: 09429083171  
E mail: [devidayal@cazri.res.in](mailto:devidayal@cazri.res.in); [devidayal.cazri@yahoo.co.in](mailto:devidayal.cazri@yahoo.co.in)

**Dr R.S. Tripathi, Secretary**

Arid Zone Research Association of India  
Central Arid Zone Research Institute, Jodhpur-342 003  
Tel.: 0291-2786689 (Office); Fax: 0291-2788706/2786689  
E-mail: [rstripathi@cazri.res.in](mailto:rstripathi@cazri.res.in)  
Website: [www.cazri.res.in](http://www.cazri.res.in) and [www.azrai.org](http://www.azrai.org)



problems and technologies developed for their solutions, as well as to discuss about the existing management practices of dryland regions and likely future measures for an improved and secured livelihood of the dryland farmers.

## MAJOR THEMES

1. Dryland biodiversity and its conservation
2. Natural resources and their management
3. Cropland management
4. Livestock production and management
5. Engineering, energy and post-harvest technology
6. Socioeconomics and gender issues

## ORGANIZERS

**Arid Zone Research Association of India (AZRAI), Jodhpur:** Establishment of Central Arid Zone Research Institute (CAZRI) at Jodhpur in 1959 opened new horizons for research on desert ecosystem, and it started generating volumes of new and valuable information. The lack of a scientific journal devoted to arid zone research was felt when the need arose for proper dissemination of the new scientific knowledge. This led to the birth of Arid Zone Research Association of India (AZRAI) in 1962. The association brought out its first official biennial journal, "Annals of Arid Zone" in 1963, which was later converted into a quarterly publication. Besides publishing the Journal, the Association periodically organizes National and International Conferences to provide to the scientists all over the world a forum to share knowledge on arid and semi-arid zone research. During five decades of its existence the Association has organized six major National and International events, the latest being the International Conference on 'Nurturing Arid Zones for People and Environment', that was held at Jodhpur during November 2009. AZRAI has contributed immensely in diffusion of knowledge on arid and semi-arid lands to those engaged in similar endeavors world over and is playing a pivotal role in bringing scientists, planners, administrators and the public on one platform to discuss issues of concern. With the same commitments and dedication the Association during its Golden Jubilee Year has decided to organize the present National Symposium at Bhuj in December 2011.

**Central Arid Zone Research Institute (CAZRI), Jodhpur:** Central Arid Zone Research Institute (CAZRI) at Jodhpur, India, is a premiere research institute of its kind that was established in October 1959 by Government of India on the recommendations of an UNESCO Expert, Dr. C.S. Christian of CSIRO, Australia. The Institute is an integral part of the National Agricultural Research System of India under Indian Council of Agricultural Research, Govt. of India. Since its



## NATIONAL ORGANIZING COMMITTEE

<b>Patron</b>	Dr. S. Ayyappan, Secretary DARE (GOI) and Director General, ICAR, New Delhi
<b>Chairman</b>	Dr. A.K. Singh, Deputy Director General (NRM), ICAR, New Delhi
<b>Members</b>	Dr. H.P. Singh, Ex Director, CRIDA, Hyderabad Dr. K.R. Solanki, Former ADG (ICAR) Jodhpur Dr. J.C. Dagar, ADG (Agronomy), ICAR, New Delhi Dr. Sasi Ranjan Yadav, Vice Chancellor, Kranti Guru Syamji Krishan Varma Kachcha University, Bhuj Dr. N.C. Patel, Vice Chancellor, Junagadh Agricultural University, Junagadh Dr. A.K. Dahama, Vice Chancellor, SKRAU, Bikaner Dr. S.K. Sharma, Director, CIAH Bikaner Dr. S.A. Kareem, Director, CSWRI, Awikanagar Dr. B. Venkateswarlu, Director, CRIDA, Hyderabad Dr. D.K. Sharma, Director, CSSRI, Karnal Dr. J.B. Misra, Director, Directorate of Groundnut Research, Junagadh Dr. B.S. Patel, SDAU, SK Nagar Prof. G. Agoramorthy, Director GUIDE, Bhuj Dr. T.S. Rathore, Director, AFRI, Jodhpur Dr. Devi Dayal, Head, RRS, CAZRI, Bhuj and Organizing Secretary Dr. R.S. Tripathi, Secretary, AZRAI, CAZRI, Jodhpur
<b>Member Secretary</b>	Dr. M.M. Roy, Director, CAZRI, Jodhpur

establishment, CAZRI has been involved in holistic and integrated appraisal of natural resources in hot arid zones of India. It has developed technologies for sand dune stabilization, higher productivity of agriculture, arid horticulture, grassland improvement, dryland farming, etc. CAZRI has also carried out research and development work for efficient water management under limited water availability and for efficient management of renewable energy by developing various solar appliances. During more than fifty years of its existence CAZRI has provided better understanding of the desert environment and its resources, and has released several technologies that have influenced the land use and livelihood options in the region, and improved the overall productivity of this fragile agro-climatic region. Currently CAZRI is operating through six divisions at the headquarters at Jodhpur, and through four regional research stations at Bikaner, Kukma-Bhuj, Jaisalmer and Pali.

## THE VENUE

Regional Research Station, Central Arid Zone Research Institute, Kukma, Bhuj-370 105, Gujarat (India).

The Regional Research Station (RRS) of CAZRI, at Kukma, Bhuj, Gujarat was established on 26<sup>th</sup> March 1987 and will complete 25 years of its existence in 2012. The National Symposium will be held at Bhuj as part of the celebration of its Silver Jubilee. The RRS is located 14 km from Bhuj city on the Bhuj-Anjar state highway. The station has worked on sustainable management of arid ecosystem in Gujarat and has developed several profitable and sustainable production technologies, including rangeland management. Presently, the station has a multi-disciplinary team of scientists and modest infrastructure facilities for conducting basic and applied research.

## ABOUT THE HOST CITY

Bhuj city was established by Rao Hamirji in 1510 and was made the state capital by Rao Khengarji I in 1549. Currently, Bhuj city is the headquarters of Kachchh district, the second largest district in India. Bhuj is home to one of the first Swaminarayan Sampraday temples, built in 1822. Bhuj city has totally recovered from the devastations of 2001 earthquake, and has become more cosmopolitan with numerous industrial establishments and huge investments in infrastructure and amenities development. Few notable places of interest around Bhuj are: (i) archaeological remains of Harappan Civilization at Dhola Veera, (ii) Banni Grassland and the handicrafts by its inhabitants (the Maldharis), (iii) Narayan Sarovar and Koteswar Temple of the Mahabharata era, (iv) the sea beach and the palace of Mandvi, and (v) the Great Rann (famous for Rannotsava) and the Little Rann (known for the rare wild ass). Bhuj city is well connected with other parts of the country by road, rail (direct trains from Mumbai and Delhi) and air (two flights from Mumbai to Bhuj daily).

## DATE OF SYMPOSIUM

December 20-22, 2011.



## National Symposium on

# RESOURCE UTILIZATION THROUGH INTEGRATED FARMING SYSTEM AND BIODIVERSITY CONSERVATION IN DRYLANDS

December 20-22, 2011



Organized by  
Arid Zone Research Association of India  
and  
Central Arid Zone Research Institute, Jodhpur



At  
Regional Research Station  
CENTRAL ARID ZONE RESEARCH INSTITUTE  
Kukma, Bhuj-370 105 (Gujarat)