

CAZRI organized a walking workshop cum seminar in desert area of Rajasthan

Central Arid Zone Research Institute, Jodhpur along with EIACP-RP on Combating Desertification unit, organized a Walking Workshop during 6-7 March 2024 in a traverse through the desert area in Jodhpur and Jaisalmer district.



The objective was to provide basic information and understanding of desert natural resources (terrain, landforms, vegetation, soil and water resources), agriculture and ongoing desertification processes. 22 scientists representing 10 ARS disciplines (Soil Science, Soil & Water conservations Engineering, Agronomy, Agri-Meteorology, Plant Pathology, Plant Biochemistry, Agriculture Structure and Process Engineering, Farm Machinery and Power, Home Science) and EIACP officers from CAZRI participated in this workshop.

The visit was executed for 10 sites; a typical network of Arid ephemeral streams, water conservation and khadin farming at Agolai, a series of clustered parabolic sand dunes and a live model of sand dune stabilization at Shaitrwa-Dechu village, a Saline depression/Rann system (vegetation and soil types) at Pokhran and Lanela, Grasslands at Chandhan, typical assemblage of pebbles/cobble gravels at Bhojka and finally, a barchan sand dune field at Sam village on Day I.

On the day 2, the participants traversed through a hyper-arid tract in the IGNP command area of Ramgarh-Ranau sector and witnessed the changing landscape and land use.

The terrain was deserts with a series of big stable sand dunes with natural vegetations like phog (*Calligonum polygonoide*), khimp (*Leptadenia pyrotechnica*), bui (*Aerva javanica*) and plantation of *Acacia tortilis* trees. How despite harsh landscape, this Desert supports a surprisingly large number of hardy, drought-resistant plant species was a point of discussion. At several places, it was interesting see cultivation of cumin, isabgol and wheat crops under irrigation. As such, there were many croplands found to be affected by sand depositions, hummock formations indicating severity of wind erosion activities.

There was a discussion and explanation on the importance and contribution of phog and khimp plants in the sand control measures. At Damodara, participants visited a large khadin and interacted with the farm woman and came to know about effect of late rains on crops. The team also visited RRS-CAZRI at Jaisalmer and its Experimental station at Chandhan. Dr R.S.Mehta, Head of RRS gave information on various ongoing research activities and also participants went around the experimental areas.



Fluvial system & ephemeral stream at Agolai



Sand dune stabilization at Shaitrwa village



Rock weathering and soil erosion at Damodara



Acacia tortilis and Phog plants over sand dunes at Ranau

Earlier, the Walking workshop was kicked off in the early morning of 6th March with a message from Dr. O.P. Yadav, Director, CAZRI. Dr. P.C. Moharana (Course Director), Dr. P. Santra (Head and Convener) along with Course coordinators (Dr. H.M. Meena and Dr. Manoj Parihar) effectively organized this first of walking workshop. Dr. J.P. Singh (Ex. Head and Principal Scientist, Plant Ecology) contributed immensely as an Expert.



Isabgol crops grown at several places in IGNP area



Discussion on the utility of Phog plants