

**ICARDA-ICAR PROJECT: Promoting Cactus (*Opuntia ficus-indica*) As drought resilient feed resource under different agro-ecological production systems across India**

**PROJECT 3: SUB PROJECT 2**

**Webinar proceeding**

organized between:

ICAR-Indian Grassland and Fodder Research Institute (IGFRI)

and

The International Center for Agriculture Research in the Dry Areas (ICARDA)

**Prepared by:** Mounir Louhaichi (ICARDA – Tunisia) and Sawsan Hassan (ICARDA - Jordan)

**Collaborators:**

Dr. Sunil Kumar, D. R. Palsaniya, Dr. A. K. Misra and Dr. Shahid Ahmed (IGFRI – Jhansi)





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## Promoting cactus (*Opuntia ficus-indica*) as drought resilient feed resource under different agro-ecological production systems across India

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### Webinar

In collaboration between:

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and

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**23 October 2020**



**Rational:** Since its beginning in November 2019 in Wuhan, China, coronavirus COVID-19 has a tremendous impact on our lives. The world is still struggling to contain the spread and protective procedures are implemented to protect the public. This impact is shaping up to have serious long-term implications for businesses around the world, as most of the business have been postponed and international travel is very difficult to most of the countries. In-person meetings have been canceled in response to this pandemic. Due to the uncertainty of timing for resuming our normal operations, and in order to mitigate the increased risk of exposure through in-person attendance ICARDA management recommended to maintain contact with our partners through online meetings until the end of the year.

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**Objectives:** This meeting aims to contribute to prepare and review progress on the implementation of the workplan and identify additional priorities; provide an opportunity for the Teams to meet and further specific tasks; and provide a platform for discussing on-going responses to Covid 19 with an aim to improve the coordinated response and information flow.

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- The availability of good internet connection is required

## Webinar

October 2020		
13:00-13:15	Welcoming remarks and meeting agenda <ul style="list-style-type: none"> <li>• Dr. Sarker</li> <li>• ICAR institution</li> <li>• Dr. Mounir</li> <li>• Dr. Sawsan</li> </ul>	
13:15 – 14:00	Update on: <ul style="list-style-type: none"> <li>• The current trials</li> <li>• Capacity development events</li> <li>• Cactus dissemination to farmers</li> <li>• Publications</li> <li>• Budget situation</li> <li>• Covid impact</li> </ul>	All participants
14:00 – 14:15	Suggestions for next webinar Warp up and key action points	
14:15 –14:30	Concluding remarks	IGFRI ICARDA

## Webinar proceeding

An online meeting was held on 23<sup>rd</sup> October 2020 to review the progress and further planning of activities under the ICAR-IGFRI and ICARDA collaborative programme on Cactus. The aim of the meeting was to review progress on the implementation of the workplan and identify additional priorities; provide an opportunity for the Teams to meet and further specific tasks; and provide a platform for discussing on-going responses to Covid 19 with an aim to improve the coordinated response and information flow. The following scientists were present during this meeting:

### IGFRI:

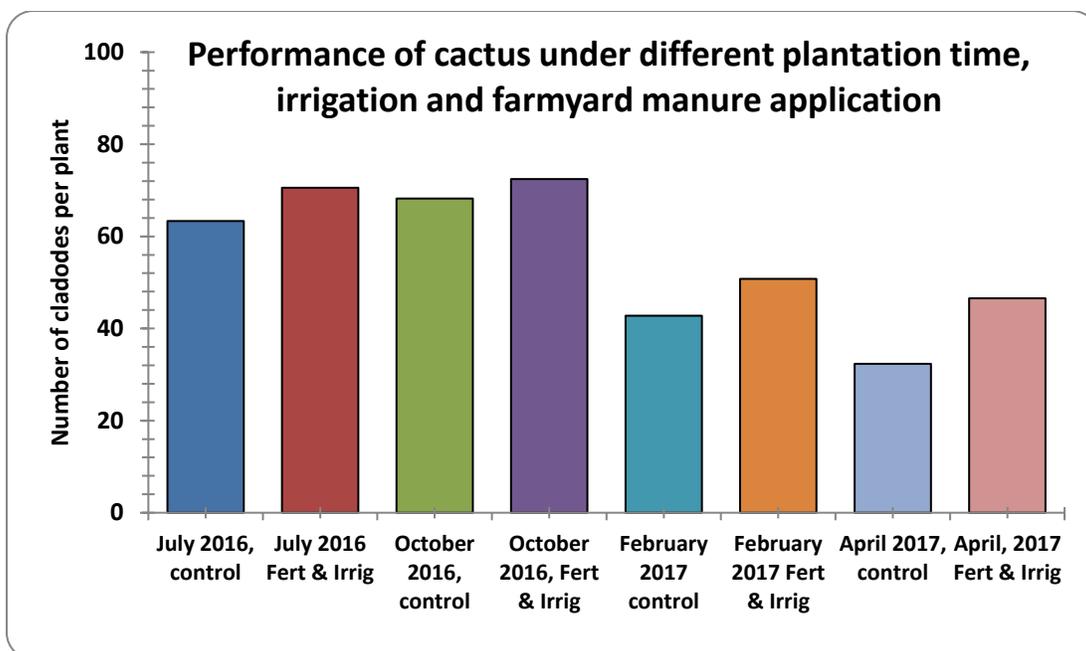
- Dr. Sunil Kumar (Agronomist, ICAR-IGFRI, Jhansi)
- Dr. D R Palsaniya (Agronomist, ICAR-IGFRI, Jhansi)
- Dr. A.K. Misra, (Livestock nutritionist, ICAR-IGFRI, Jhansi)
- Dr. Shahid A (Plant Breeder, ICAR-IGFRI, Jhansi)

### ICARDA

- Dr. Ashutosh Sarker, Regional Coordinator, South Asia & China Program, ICARDA
- Dr. Mounir Louhaichi (Forage/Rangeland, ICARDA)
- Dr. Sawsan Hassan, (Forage/Rangeland, ICARDA)

At the outset, Dr. Sawsan welcomed the team members and set the agenda for discussion. Drs. Ashutosh Sarker, Regional Coordinator, South Asia & China Program, ICARDA and Mounir Louhaichi ICARDA appreciated the work done so far in their welcome and opening remark. Dr. Sarker thanked all the participants for joining the meeting. He declared that the project is moving well and IGFRI is the key partner in this project. He appreciated the work done in the station including the establishment of the nurseries, also the roper managements as well as the feeding trials. In addition to the significant interaction with KVKS and out scaling the promising accessions to the farmers. Dr. Mounir, welcomed all participants. He appraised the work at the station, he mentioned that IGFRI contribution is going beyond the state as they are helping in out scaling our activities by providing the planting martials other projects. He suggested to produce a map to show the project evolution and the impact of the cactus work. He suggested to evaluate and how the adoption is happening and to see what the criteria of the famers are who have higher success. It is an evaluation what has been done and how best to rectify the rest of the timeframe within this project.

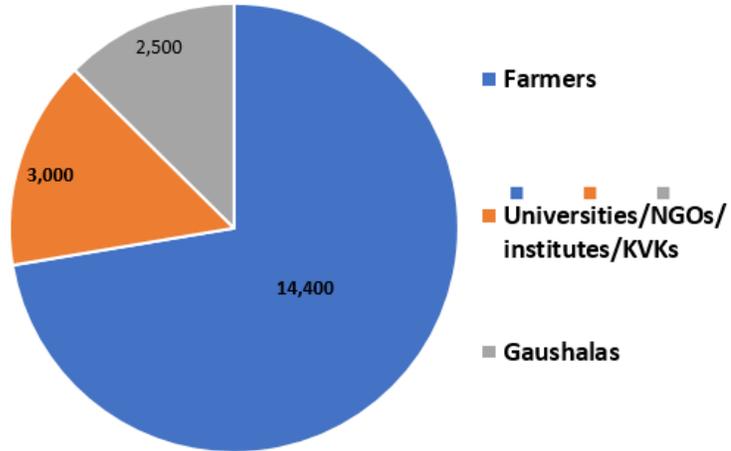
Dr. Sunil Kumar up-dated the meeting regarding the current trials, capacity development events, feeding trial, cactus dissemination to farmers, publications, budget situation and Covid impact on the project activities through a brief presentation. He mentioned that this is the second phase of the project and a great success has been achieved so far, though there is still much work to attain. During the COVID -19 periods there were a lot of constrains, physical movement was less but we tried our best to meet our objectives which were set for this project. The agronomic trial which started in 2016 is still ongoing and final data collection is expected to take place this November and December, data will be analyzed and reported in final report along with one ISI paper led by Dr. Sunil to be submitted for publication. IGFRI received 34 accessions from different origins, 15 accessions were chosen to be tested in terms of performance, the data was collected, and one paper is submitted.



**The best planting time is July**

Despite the unusual conditions, cactus nurseries and multiplication plots were maintained well. The capacity development activities were conducted through virtual mode, the technology related to spineless cactus as an alternative fodder resource for summer and lean period was popularized through different events, the trainings were imparted to state line departments, forest & soil conservation department, agriculture and animal husbandry departments of different states. The documents of 06 State-wise fodder plans (Uttar Pradesh, Rajasthan, Karnataka, Andhra Pradesh, Telangana, and Gujarat) were also prepared by ICAR-IGFRI, Jhansi where spineless cactus has been included as non-conventional fodder resource. In total more than 500 participants registered in these on-line (webinar) trainings. More than 18,000 cladodes were provided to farmers, Gaushala (cow shelter homes), universities and KVKs. One success story Spineless cactus- Source of non-conventional fodder (In English) Published in popular Hindi Daily newspaper of Bundelkhand region namely Amar Ujala. Promotion of Spineless cactus as non-conventional fodder in different regions of India- submitted on 15.07.2020 to publish in DARE report. To cope with Covid-19, telephonic advisory was given on COVID-19 to human health and strategy to reduce its impact on agriculture activities particularly harvest of rabi crops, post-harvest management and their disposal along with fodder supplementation to their livestock through fodder cactus was given to different category of farmers. Also, the technology

on cactus was linked with their nearby KVK or university or IGFR where already it has been percolated. Dr. Sunil declared that despite the delay of the fund release, approximately, 40% of the budget is already spent. After that he proposed the activities for the next six months.



### Number of planted cactus cladodes in May - October 2020

In the last part of the presentation Dr. Sunil mentioned the plan of work for the next five months

Next Six month Planning ( Oct.2020- March,2021)		
S.No.	Activity	Planning
01	Agronomy Trial	➤ Data Collection, Compilation & Reporting
02	Capacity Building Event (Online )	➤ Gaushala's ➤ NIAFTA (State line department) ➤ Forest department ➤ NGOs
03	Technology dissemination	➤ Cladodes Supply with literature (Dairy Cooperatives, Milk Union, Farmers, KVKs, SAUs, State line department, NDDB, BAIF, NGOs and Gaushalas)  ➤ KVK-Spread/TOT- Status Report
05	Publication	➤ Agronomy paper ➤ Project Bulletin (2017-2021) ➤ Indian regional language bulletins- 03 ( Odiya, Tamil and Kannad) ➤ Video- Film ➤ Any other left out / publication decided after discussion

Dr. Mounir thanked Dr. Sunil for the update and Suggested to prepare the capacity development report including the list of participants. And the same with respect of providing list of farmers who received cactus cladodes. He mentioned also the initiative of CARI Bhuj of establishing what's app platform m where all beneficiaries can share their pictures which has GPS location and news, and this can be set up as a protocol and it can help to evaluate our activities. The success stories and all publications and media products need to be shared as this will help to promote our activities. Dr. Mounir mentioned that there was no animal aspect in the last year achievements. Dr. Mounir mentioned that there is a global survey about the cactus cost benefits. It will be shared with our partners for their comments and inputs.

Dr. Sarker, thanked Dr. Sunil for the summary he provided. He suggested why don't we develop some specific project proposal for particular state where there is a green fodder deficit. We can include the KVKs to develop the baby nurseries as a source for dissemination of the cladodes in the potential project areas.

Dr. Sawsan expressed her gratitude for the hard work. She stated that IGFR is the piler of cactus work. In regard to agronomic trial Dr. Sawsan suggested to include the quality parameters data in the trial. Also, to start preparing the case study about cactus journey in Jhansi, from the beginning of the project up to now. The information will include: the number of farmers, institutes, NGOS, any other stakeholders who benefited from cactus dissemination (in every year). The number of cladodes for each, the rea that has been planted (if possible), the capacity development events, how many participants in these events, the media products and the publications it will be good also to measure any impact of actus adoption.

The following **action points** were emerged during the discussion:

#### **Agronomy trial**

- It was decided that data on fodder quality and soil parameters will also be taken that will add in quality publication.

#### **Feeding trial**

- One ISI paper from large ruminant cactus feeding trial conducted in 2018 is still pending and has to be published as soon as possible in coming 4/5 months by Dr. Misra.

### **Capacity building and dissemination**

- A separate report on capacity building including objectives, participants, activities, outcome, etc to be prepared and submitted by January end.
- A full list of farmers who received the cactus cladodes will be shared.
- TV channels for farmers in India one clip about cactus was produced. This will be shared
- All successful stories will be shared

### **Cactus Journey in Jhansi**

- Dr. Sunil and the group to provide information about the number of farmers, institutes, NGOS, any other stakeholders who benefited from cactus dissemination (in every year starting from the beginning of the project phase one). The number of cladodes for each, the area that has been planted (if possible), the capacity development events, how many participants in these events, the media products and the publications it will be good also to measure any impact of cactus adoption.

### **Developing state wise new projects proposals**

Dr. Sawsan to follow up with Dr. Sunil and Dr. Sarker to come up with proposals.

### **Cost benefit cactus survey**

- Dr. Mounir to share the first draft of the survey for IGFR partner inputs and comments

### **Publication**

- Research papers from agronomic and large ruminant feeding trial need to be published on priority.
- DR. Mounir and Dr. Sawsan to follow up on the two factsheets, Napier and another on cactus + TSG intercropping

### **Budget**

- It was suggested to send the till date AUC.

The meeting ended with the vote of thanks to the chair.

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