Program Update

Edition #8| May 2020 *Please view in browser for links to work best*

Welcome to this update from all the ACIAR projects in Pakistan.

Since the last edition, Covid-19 has dominated our collective attention, with our thoughts drawn to those most vulnerable to its impacts. They are threatened directly by infection risks, due to underlying health and nutrition issues or lack of facilities for sanitation or distancing. Many will also be fearing for their food supply.

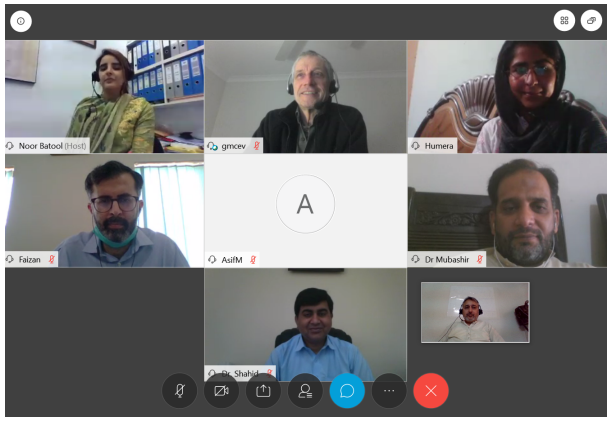
In response, ACIAR has initiated a three-stage assessment of Food System Security, Resilience and Emerging Risks in the Indo-Pacific in the context of COVID-19 to:

1) document and analyse food systems vulnerabilities resulting from the crisis and their impacts on smallholder farmers; and
2) identify possible actions that could be taken to increase food systems resilience in the face of future shocks.

ACIAR projects in Pakistan are providing input to these studies, often based on their ongoing, albeit remote, discussions with farmers.

By providing listening ears, teams try to understand and sympathise with current

challenges faced by their collaborators due to Covid-19. Similarly ACIAR is listening to and reassuring its project partners, both at senior levels and also with project leaders through fortnightly online meetings.



As ACIAR states, *"COVID-19 has prevented some of us going to our workplace and travelling to our projects, but the virus has not stopped our work".*

The updates below mention some of the ways that project teams are adapting to the situation, finding new ways to pursue the Aik Saath goal:

That rural poor, particularly women, living in the Punjab and Sindh significantly and equitably benefit from improvements in strategic value chains.

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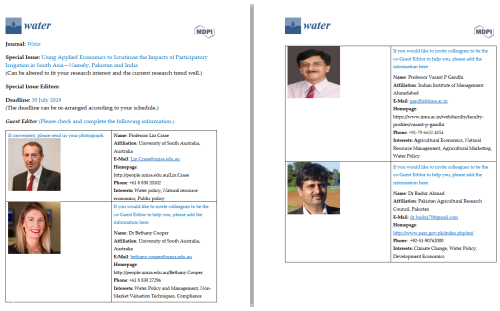
Communication the focus of water policy

As reported last quarter, the project team has been focused on disseminating their research findings. Following on high-level briefings of policy-makers, multiple papers are

either already published or in development for a special edition of Water journal.


water

Journal: Water

Special Issue: Using Applied Economics to Scrutinise the Impacts of Participatory Irrigation in South Asia—Namely, Pakistan and India
(Can be altered to fit your research interest and the current research trend well.)

Special Issue Editors:

Deadline: 30 July 2019
(The deadline can be re-arranged according to your schedule.)

Guest Editor (Please check and complete the following information.)

If convenient, please send us your photograph.

Name: Professor Lin Crase
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water

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Interests: Climate Change; Water Policy; Development Economics

In response to the COVID-19 pandemic travel restrictions, the team are creating a video that showcases the project's results and conclusions. The video presenters will be lead researchers from this project, who had planned to do broader in person dissemination activities.

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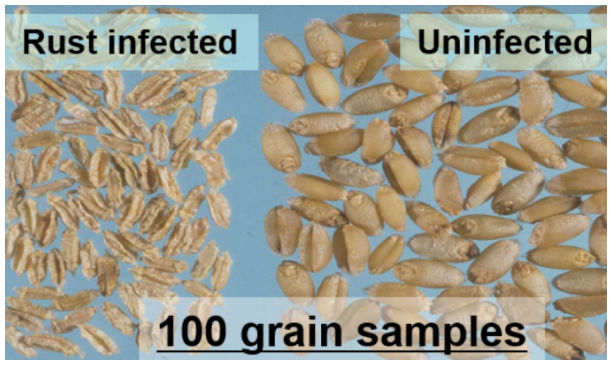
Wheat rust research – both legacy and promise

This vital work is a prime example of ACIAR's long history of partnership with Pakistan. ACIAR has collaborated with Pakistani scientists and global collaborators since the 1980s. This, in turn, has delivered benefits to growers and researchers around the world.



In 1995 Dr Robert Park, the current project leader, co-authored a highly esteemed book, which has become the standard international text on wheat rust genetics (1,519 citations to date).

Published by CSIRO Publishing with ACIAR funding, this 200 page A4-format book provides the most comprehensive overview of rust resistance genes in wheat ever complied. With approval from the publisher, the Borlaug Global Rust Initiative scanned the book using funds from the Bill and Melinda Gates Foundation, and it is now available for free download

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Australian farmers visit Pulses project

When it comes to growing and marketing pulse crops there are big differences between Australia and Pakistan but there's also common ground and much to be gained from sharing experiences. This was the experience of three leading Australian pulse growers who visited Pakistan during February.

Their busy program ranged from the chickpea peanut feast at Islamabad to a Farmer Field Day at Chakwal, focused on a Rhizobium Inoculation trial. This wide interaction with

farmers, officials, input companies and university staff and students provided insights all round. The visiting farmers were able to make several useful recommendations to assist the project in improving the profitability of pulse production in Pakistan.

The COVID-19 lockdown has forced a re-think of the planned study of the social impacts of the project in GCRs (Groups of Collaborative Research comprising family farmers and researchers). The tool for this social situational analysis will now be implemented via telephone.

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Pakistan gains from international mungbean links

ACIAR's mung bean research is both multidisciplinary and international. Pakistan partners with other south Asian producers, with a particular focus on the challenges and benefits of machine harvesting.

Other aspects include breeding, agronomy and the social impacts of production shifts.

This multidisciplinary approach is summarised in this recent article from ACIAR Partners magazine. This also describes the ACIAR-funded International Mung bean Improvement Network .

This international team has several strategies for continuing progress under Covid-19. Being a Kharif crop (sown April to June), establishing the 2020 trials has been done remotely, via fortnightly online meetings of all project partners (Worldveg, Pakistan, Bangladesh and Myanmar).

A Whatsapp group for project stakeholders has also facilitated communication during the shutdown. Finally, the team has refocused on gathering and compiling videos, pictures and information for the case studies and extension packages for future dissemination.

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Nurseries give veg farmers a head start

The Strengthening Vegetable Value Chains Project (SVVCP) recognises that, to meet market requirements, reliable crop establishment is essential. Farmers growing tomatoes, chilies and onion have had the opportunity to learn how to raise vegetable seedlings in a nursery from University of Agriculture Faisalabad experts and other farmers.

Sometimes this involves the protection of a polythene greenhouse with plants grown in a special media in trays. Another example (in chilies) improved the traditional method (locally known as chhat method). This involves broadcasting seed on flat beds, then irrigating by flooding. The improved practice involved seed sowing in lines and irrigating through sprinklers. This improved germination (from below 60% to over 90%) and seedling health. This in turn means that crops will be ready on schedule.

The SVVCP team have been keeping in touch with their farmer collaborators during the Covid-19 shutdown. In some cases this meant asking farmers to share harvest data to enable analysis. Sometimes just offering support and encouragement for those suffering hardship through being unable to transport crops to market. Some short videos captured stories from some of these. The team is also developing capacity to develop video messages for farmers as advisory services.

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Fodder drives Pakistan's largest sector - livestock

Fodder availability and quality is fundamental to livestock production and is therefore intrinsic to current and past livestock projects. The Dairy_Beef team address this in three ways:

Firstly, by testing if farmers could produce affordable seed of Rhodes grass – a highly productive, but expensive fodder crop.

Secondly, by coaching staff from every type of organisation that interacts with farmers – from vets to input suppliers- using the "train the trainer" nutrition module. (Regular "Community of Practice" workshops with leaders of these organisations also cement support for this whole family extension approach).

Thirdly, the D_B team also trains farmers directly, such as when establishing a farm business group (FBG) in Siddique Narejo village in Sindh.
Here, the farmers knowledge of nutrition lagged behind their enthusiasm to engage with the value chain.

After the training, one female farmer shared *"sometimes we were wasting surplus berseem and discard it when it is sticky. Today, we learned that surplus berseem can be dried and preserved as hay and (we) can use as animal feed because dried berseem has dry matter (energy and protein)".*

These "hands-on" activities are greatly appreciated by the farmers involved but for the safety of all are curtailed by the Covid-19 lockdown. Keeping in touch remotely, the team are continuing data collection (modified the interview guide accordingly) as well as building their own capacity through online training in data capture, scientific writing and communication skills.

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Teamwork for health of sheep & goats (and humans)

The current focus on animal health status has been enabled in Sindh by collaborating with the Sindh Livestock Department and Sindh Agriculture University (SAU). This has been boosted further through links with the Japan International Cooperation Agency (JICA).

Through these collaborations the project team has collected and analysed 500 blood samples and 400 fecal samples from goats and sheep in 4 villages across Sindh & Punjab – a major exercise.

The project has a strong focus on fostering expertise within Pakistan, including training student interns and fostering Masters studies, including animal health. One current M.Phil project extends this by studying which of these diseases (known as "zoonotic") can cause ill-health in humans . ACIAR has a strong interest, along with its international partners, in this "One Health" concept, explained here by Dr Anna Okello.

Regarding the current Covid-19 health crisis, senior Australian team members are continuing to provide online training workshops for the Small Ruminant team who, in turn, are keeping all stakeholders in the loop.
Area Advisors will keep in touch with all the registered farmers of trial on calls and will provide complete technical support regarding management and possible treatment of any diseased animals or linking them to nearby Veterinary facility etc. This will collect vital health data as well as collecting qualitative information on the effect COVID is having on smallholder households.
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Remote telecomms proves its worth for groundwater

Even before the Covid-19 lockdown, more and more farmers in Pakistan were using mobile phone technology to access information and online tools.

The groundwater project has been at the forefront of this trend, with its Apna Pani mobile App, which is being regularly improved through feedback from users. The App allows farmers to Geo-locate their wells, visualise temporal changes in water level and quality of the wells, along with other data such as weather, soil type and fertility.

The mobile application data is also linked to the web based decision support tool to calculate crop water surplus/deficits. The project team have trained farmers to test EC (electric conductivity) and TDS (total dissolved solid), using meters provided. This indicates suitability of irrigation water for use on crops. Linked to the wider-scale groundwater models now nearing completion, the data can provide an integrated, real-time picture of the groundwater system – invaluable for both farmers and managers.

Aik Saath is keen for all projects to encourage those they work with to try the App, and provide feedback. The App is also being supported by PCRWR (Pakistan Council of Research in Water Resources), who is in touch with 20,000 farmers through an SMS messaging service. Return to Contents

Crop switch saves water, makes money

No one can predict which crops will be most profitable – there are too many variables at play. However, farmers are better equipped to juggle these variables, thanks to the Irrigation Extension project team. As reported last edition, the process used ("Farmer Integrated Learning Model (FILM)") helps farmers and communities to develop action plans to address key issues. This takes into account local scenarios, helping to instil self-reliance.

For example, in one village - Ali Sher Rajpoot (Tando Allahyar District, Sindh province), patches of salinity have severely reduced what yields. Taking all factors into account via the FILM process, a trial crop of AUF-11 Canola was planted for 2019-20 Rabi season. The canola required fewer inputs, (including less irrigation, being a "Low-Delta" crop). Yield and price were favourable, doubling the net profit from the previous Rabi wheat crop.

While this holds no guarantee for future profitability, it demonstrates how new initiatives can emerge from this approach. FILM recognises that water is a key factor, but also just one of many ingredients in community problem-solving. Brochures and Guidelines (in English and Urdu) are now available on the FILM workshop format. A photo essay is available online, along with a profile of project leader Dr Sandra Heaney-Mustafa. Return to Contents

ACIAR Alumni Corner

The Aik Saath goal is focused on improving the well-being of Pakistan's rural poor. ACIAR's projects all delight in making a difference in the lives of individuals and communities. However, their most important and lasting legacy is the broadening and deepening of the talent in the local research community. This occurs through involvement in projects, exposure to collaborators and new thinking as well as in formal scholarship and training programs. ACIAR continues to link and encourage this talent through its Alumni program.

ACIAR has initiated a tracer study of our John Allwright Fellowship Program. The aim of the study to seek valuable feedback on the outcomes from the John Allwright Fellows (JAF). This will help us to improve the program and inform our evaluation and knowledge of how fellowships impact the lives of awardees and their countries. You will be contacted soon by our contractor Wallis Market and Social Research to undertake a short survey of your experiences. We would really appreciate your contribution in this regard.

ACIAR has launched The Alumni Research Support Facility - for small research activities that build resilience and respond to the emerging challenges that COVID-19 has placed on agricultural systems in our partner countries. The funded projects will be led by ACIAR John Allwright Fellows, ACIAR John Dillon Fellows, ACIAR University of the South Pacific Scholarship Program and Meryl Williams Fellowship alumni. They will plan and execute research which is aligned and supportive of their own institution's research strategies and ACIAR's country strategies. Return to Contents

Covid-19 resources

Most readers will have noticed that there are many resources available addressing various aspects of the Covid-19 pandemic. Here are a few about managing remote working, personal wellbeing, farmers perspectives and the big picture effects on agriculture and food.

- Top Tips for Working From Home from Agile Coach John Westgarth
- Managing Remote Teams During COVID 19
- Coronavirus (COVID-19): managing stress and anxiety
- IFPRI Blogs : COVID-19 (International Food Policy Research Institute)
- Adapting MSD programmes in response to COVID-19 webinar recording from BEAM
- Impact of Covid-19 pandemic on farmers and fishers in Asia and the Pacific

- Food System Security, Resilience and Emerging Risks in the Indo-Pacific in the context of COVID-19 Return to Contents

Publications

Potential of new Australian oldman saltbush varieties to fill ruminant feed-gaps in arid and saline areas of Pakistan Hayley Norman and Ed Barrett-Lennard

Since the 1980's, ACIAR has funded research demonstrating that several saltbush species can persist in saline soils in Pakistan.

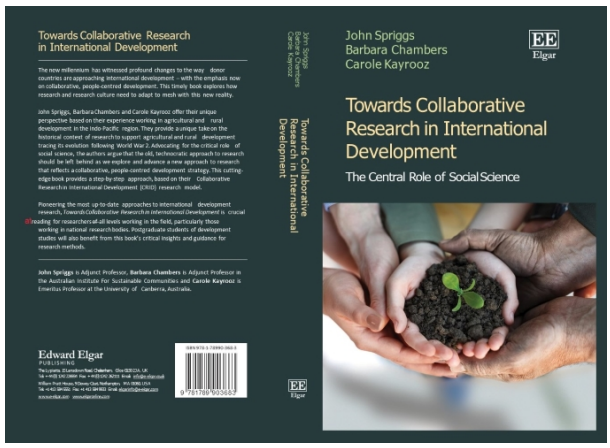
Saltbushes offer an opportunity to use land and water resources that are too saline or arid for traditional crops and forages. This in turn can help address the seasonal nutrient gaps suffered by sheep and goat producers.

Now, Australian scientists have produced a much-improved saltbush variety named AnamekaTM and imported germplasm into Pakistan.

This detailed review, carried out in conjunction with the Aik Saath Small Ruminant project, analyses the potential role of halophytic shrubs for sheep and goats in Pakistan.

Towards Collaborative Research in International Development - The Central Role of Social Science John Spriggs, Barbara Chambers and Carole Kayrooz

As announced last September, the authors of this new book have distilled their lifetime lessons from the field (including during ACIAR's ASLP program in Pakistan) into a step-by-step approach, based on their Collaborative Research in International Development (CRID) research model. Chapter 1 is available as a free download.



For the hardcover book a temporary discount code (SPGG35) is available which should give buyers a 35% discount.

More information for hardcover book and for online book is available

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For your diary

RAID Women in agriculture and climate change webinar 1pm Pakistan/6pm ACST

Market-based Agricultural Technology Scaling in Fragmented Market Settings: Three Cases 09 :30 am - 11:00 am US EDT/1130pm AEST/6:30pm Pakistan

GLF Bonn Digital Conference 2020: Food in the time of crises June 3 - 5, 2020

6th World One Health Congress Rescheduled to 30 October - 3 November 2020

2020 Crawford Fund Annual Conference Postponed to March 2021

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About Aik Saath

Aik Saath is an Urdu phrase meaning "Together".
It is also the everyday name for ACIAR's program of eleven Research for Development (R4D) projects in Pakistan (see links below).
Aik Saath represents:
- the **joint** Pakistani & Australian government commitment to the program
- **multiple** agricultural products, themes and research disciplines
- numerous technical, commercial and official **partners** in Australia and Pakistan
- **all** members of smallholder families and communities, including women and youth

Facilitated by the ACIAR Country Office in Pakistan and the coordinator, Aik Saath fosters collaborations to help maximise the impact from ACIAR Research for Development projects in Pakistan.
Previous newsletters: #7, #6 , #5 , #4 , #3 , #2 , #1 Return to Contents

Project Information

The short updates above are drawn from the latest quarterly reports, which are used for project management.
For a list of ACIAR's projects in Pakistan, please click here.
Snapshots of the aims of each project are here.
Factsheets for all projects are available here
If required, please request more information from project leaders.
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Feedback or ideas for future editions? Please get in touch.

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