



## Program Update

Edition #6 | December 2019

[Please view in browser for links to work](#)

Welcome to this update from the [Aik Saath](#) agricultural “Research for Development” (R4D) program.

This has brief updates from all the ACIAR projects in Pakistan, with links to more information.

There is recurrent theme of **productive collaboration**, at many levels - with governments, NGOs, commercial businesses, international research teams and between various Aik Saath projects.

Working together, everyone involved in this large and complex program is working towards the 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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### [Aik Saath research presented at major events in Australia](#)

TropAg is a major annual conference covering all aspects of [Tropical Agriculture](#). At this year's event in Brisbane, seven team members from four Aik Saath projects secured support to present their work, learn from other researchers and report back to team-mates. The attendees from Aik Saath met to share highlights from the event - example were:

**"I learned about the role of cropping patterns in the current scenario of climate change from the presentation of climate change impacts, adaptation, and mitigation for tropical agriculture by the key note speaker [Prof Mark Howden](#) from CSIRO"**

**"The most important thing I have learned from the keynote address of [Dr Usha Zehr](#) is the importance to integrate and equip small holder farmers with latest agricultural technologies for sustainable agriculture value chains development especially in developing countries such as Pakistan"**



Photo credit: Sajida Shahzad.

As mentioned in project updates below, Aik Saath research was also presented at the **Australasian Pacific Extension Network (APEN)** Conference in Darwin and the **Australasian Groundwater Conference** in Brisbane.

### [Project Updates](#)

For a list of ACIAR's projects in Pakistan, please click [here](#).

The following short summaries are drawn from the latest quarterly reports, which are used for project management.

Factsheets for all projects are available [here](#)

If required, please request more information from project leaders.

### [Policy team prompts](#)

The Punjab Government recently announced a raft of policy reform, giving greater freedom for agricultural produce trade in Punjab. This major step in overcoming some of the value chain inefficiencies affecting small horticulture producers was facilitated by a compelling case presented by this collaborative project team.

The team focused on presenting evidence that meets the three-tier-test: **technically feasible, economically viable and socially desirable.**

This required a multi-pronged approach: a literature survey of the past effort, surveys of producers and market middlemen/intermediaries, and interviews with key informants to gain practical insight.

Horticulture has enormous potential in Pakistan, domestically as well as through trade with China via CPEC (China-Pakistan Economic Corridor). Beijing University is a project partner and recently hosted to visit markets and review their work.

### [Hort team know their onions – next will be potatoes, tomatoes and chillies](#)

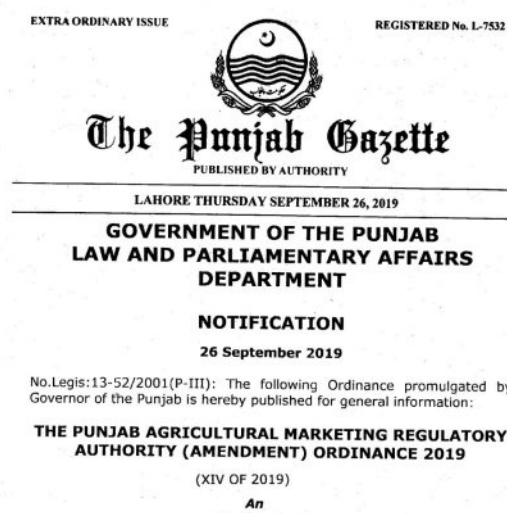
One main focus area this quarter has been on planning and undertaking a value chain study on onions in Sindh. This is a key activity designed to build skills and awareness in the team so that lessons will be applied in value chain interventions with other crops (potato, tomato and fresh chillies).

For the onion farmers directly involved, the aim is to equip them to understand and respond to market requirements. Therefore, farming communities were engaged before planting, to instil a market focus from the very start.

**A walking the chain activity for onion farmers and team members familiarised them with the onion market in Karachi.**

Further insights came from sharing market

The reforms now in place will enable farmers to send their goods wherever they want, and to sell them to whoever they want to, allowing private markets to flourish and increasing farmers' marketing choices. The legislation also establishes stakeholder-led governance structures for each public market.



The Punjab Agricultural Marketing Regulatory Authority (Amendment) Ordinance 2019 (XIV of 2019) came into force on 26 September 2019 [Return to contents](#)

Production, harvesting and curing protocols were selected, aiming to satisfy market needs, including production and postharvest manual of onion and leaflet for onion disease control and onion thrips disease. The initial results and learnings from this intervention will be assessed at the project meeting in mid-December.

Another focus area has been on value addition in Sindh. Farmers were engaged in a market survey to assess market requirements for the proposed value-added products. Training was also provided in marketing strategies and pictorial guide for chili chutney was

horticulture team at the Aik Saath Annual Meeting).

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## [Water policy findings shared at senior government level](#)

The Participatory Irrigation Management project has been sharing, at the highest levels, its findings about how farmers gain access to water and pay for it. The results have shown that simply involving farmers in managing water supply for irrigation does not automatically improve performance.

In-depth research with communities has shown that many localised issues such as organisational capacity, environmental issues, technical factors and social norms and values must also be carefully considered.



The project findings stimulated positive and enthusiastic discussion during a series of “Dissemination Workshops” attended by very senior government officials up to Minister level.

## [Community engagement Scales and Sustains better irrigation](#)

The aim of every community developer is to no longer be needed – it rarely is realised. However, this project - studying extension methods for better irrigation practices - is well on the way.

These were adopted after swapping ideas at the Aik Saath Annual Meeting and at the mid-term review.

Combining rigorous research (comparing extension



Water management is not only fundamental to Pakistan’s future well-being, but is currently being considered in the context of the national reform agenda. The latter has an emphasis on participation.

Thanks to this research, policymakers know how and why factors (such as compliance by farmers and performance of institutions) vary between localities.

In addition, gender differences have been ignored in the past, yet the project demonstrates that policy must take account of the role of both men and women farmers, if it is to be effective.

As the project concludes, the team are finalising policy briefs and preparing papers for the Water journal’s special edition, entitled ‘Using Applied Economics to Scrutinise the Impacts of Participatory Irrigation in South Asia - Namely Pakistan and India’.

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[farmer training](#). This equipped male and female farmers to the point where they feel confident to go to other villages and facilitate workshops with others.

These farmer-trainers will “scale out” the project output - “Farmer Integrated Learning Model (FILM)”, into the future. Guidelines in [English](#) and [Urdu](#) support this ongoing “ripple effect”.

A key “sustaining” activity this quarter was the first round of stakeholder forums - practical networks that are intended to continue beyond the life of the project.

## [Developing capacity from the ground\(water\) up](#)

This multi-faceted project has a strong eye to the future, developing capacity at all levels from macro (provincial modelling and scenario planning) through to micro (water quality testing by villagers). This is underpinned by research into the socio-economic situation of the communities and their emerging needs.

Developing capacity of the research team and partners to sustain this work is key. This was showcased at the recent Australasian Groundwater Conference through nine presentations covering social, institutional, modelling and decision support aspects.



Groundwater models have now been developed for Punjab and Sindh and are underway for Kuchlugh in Balochistan.

keen to share [lessons](#) and [did so](#) at September's APEN (Australasian Pacific Extension Network) meeting in Darwin.



Female perspective mid-line data collection in Sindh

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Household data is being analysed to provide insights into future scenarios using an approach known as Representative Agricultural Pathways (RAPs).

Collaboration between various stakeholders will help in improved understanding of groundwater processes and changes over time. It will also co-develop farmer strategies towards sustainable agricultural livelihoods.



Meanwhile, capacity for monitoring of groundwater (level and quality) in irrigation departments has increased with use of loggers to better understand trends. Farmer skill-building continues through English, Urdu and Sindhi translations of [What is Groundwater Booklet](#) and Farmer Cards. A recent [newsletter](#) is available.

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## [Tackling Wheat Stripe Rust](#)

This project addresses a global and ongoing challenge through international collaboration.

Firstly to share and characterise diverse sources of germplasm for rust resistance genes.

Secondly, to address future threats by building high-level expertise among country partners, Ethiopia, India, Nepal and Pakistan.

Both approaches were assessed at the Mid Term Review in Ethiopia in November.

Regarding (1): Advanced genetic stocks including 2,098 lines from a diverse set of cultivars, advanced lines and mapping populations will be delivered to Ethiopia, India, Nepal and Pakistan, by the end of 2019.

## [Pulses project partnering for scale-out](#)

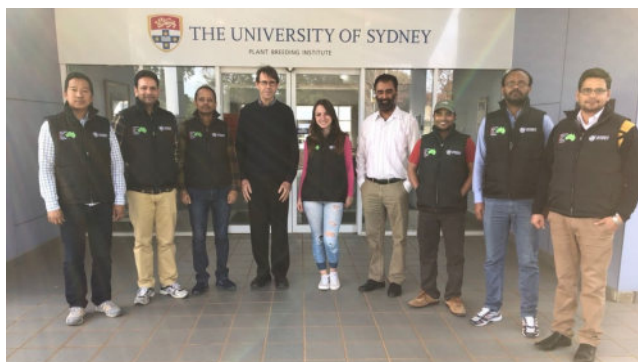
The project team has identified key productivity factors such as the use of certified seed of farmer preferred improved variety, use of inoculum, use of seed dressing fungicide and application of pre-emergence herbicide. These outcomes are to be disseminated to other farmers through new initiatives with NGOs:

- [National Rural Support Network \(NRSP\)](#) and
- [Sindh Rural Support Organization \(SRSO\)](#) agreed to share project findings with farmers within their programs. This approach embeds enterprise development with overall community development

Commercial partnerships are also emerging:

- Fourteen new improved groundnut harvesters were manufactured and sold this season by the manufacturer, thanks to the team's role in engaging with farmer trials to improve performance.
- The project has also partnered with a seed company to sustain the supply of certified seed, after the life of the project.

Regarding (2) Seven early-career scientists have recently completed five months training at the University of Sydney to develop capacity in rust pathology and genetics.



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Another partnering outcome from the Aik Saath Annual Meeting was between the pulses and small ruminants project, both working with farmer community at Chakwal and Bhakkar.

The teams aim to optimise the potential of groundnut plants and shells as feed for small ruminants. The initial focus is on nutritional analysis of the groundnut waste.



At the July Mango Festival in Islamabad, the team exhibited value added (cleaned, sorted, graded and packed) products to the higher end market.

There was also strong interest in organic chickpea and its by-products like daal (split chickpea) and flour (basen).

[Pulse Newsletter](#)

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## harvesting of many bean



Enabling machine-harvesting is a major challenge involving much more than just introducing a new machine.

Biological characteristics of different varieties in different growing regions need to be matched with the mechanical features of different machines.

Other factors such as the use of various desiccants also come into play. Once suitable varieties are identified, then farmers need access to enough seed to make mechanisation worthwhile. Factors such as affordability and financing options also come into play.

After several years juggling these factors, the team have had good response to demonstrations in the focus regions of Bhakkar and Chakwal.

As a collaborative project with Bangladesh, Myanmar and the World Vegetable Centre, the cross-learning between the country teams is invaluable.

With global pulse demand set to keep expanding, the innovations from this project are highly significant.



Seed Production site at Chakwal

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## Smallholders enjoy benefits from new feeding approach for kids and lambs



The team took a big step towards the key goal of reducing mortality of young kids and lambs by completing an important trial with 36 smallholder farmers in Punjab and Sindh.

“Creep Feeding” sets up solid feed stations that are only accessible to small animals. This allows them to supplement their main diet of mother’s milk and thereby put on quicker growth.

Team members as well as interns gained significant hands-on skills in on-farm research methods, with detailed analysis underway for future publication.

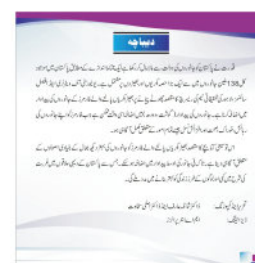
One family mentioned that ***the weight gain was a lot better than last year and importantly every month they got to know the weight of their individual animal, which was very helpful to negotiate with middle-man to get better price of their animals.***

Another woman farmer said, ***“it was great to have creep area in our house for young kids/lamb” and that has helped her a lot for daily management of cleaning and almost an hour of her time was saved. That now she can utilise on other household chores***

As part of the team’s strategy for sustaining and scaling out the lessons from their research with smallholders, [extension material in Urdu](#) has been published on disease control.



However, many of the farmers involved have already captured great benefits from the trial, which promoted



## Dairy-beef project links production and marketing in value chain approach

The project's mid-term review in September highlighted the progress and challenges across the four different project objectives (extension, beef market analysis, production research & value chain development).

Using this framework, the team shared their experiences through a discussion/workshop style including a lot of Q&A sessions with partners/farm advisors/farmers.

This enabled the reviewers to appreciate achievements and suggest ways to address challenges during the second half of the project.

Objective 1 (Extension) is highly significant for all projects in Pakistan and elsewhere as it is researching how to scale out the "Whole Family Extension Approach" through partnerships.

The review team witnessed villagers adopting animal



husbandry skills as part of broader community development with Akhuwat Foundation.

## Technical coaching underpins success for female entrepreneurs

ACIAR and the [Market Development Facility \(MDF\)](#) in Pakistan have an ongoing partnership to

**This highlighted the critical importance of social and cultural context to achieving practice change.**



The team have identified very real barriers to profitability in raising calves for beef. These are now being addressed through (a) production and (b) marketing strategies.

Firstly, families in six villages are keenly participating in a calf rearing competition. This is motivating changes to traditional practices for rearing calves, by recognising that, for farmers, "seeing is believing". "We took interest in competition, registered our calf and are excited to get healthy growing calf".

Secondly, male and female farmers joined two "Mystery Bus Tours" – new and valuable opportunities to gain perspectives beyond village premises.



Female farmers met two women running a dairy and beef business.

The men learned about market demand and price negotiation in a large city animal market.

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MDF are currently producing a documentary about the journey of these







business  
opportunities.

the Dairy Beef team in Lahore.

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One such opportunity supported strongly by MDF is driven by the lack of fodder for livestock at certain times of the year. With commercial partners, MDF supported village-level entrepreneurs to produce and market silage to cover these “fodder gaps”.

In 2018, the Dairy\_Beef project provided basic training in animal husbandry for a group of women silage entrepreneurs.



### Policy Analysis – a key element of R4D in Pakistan

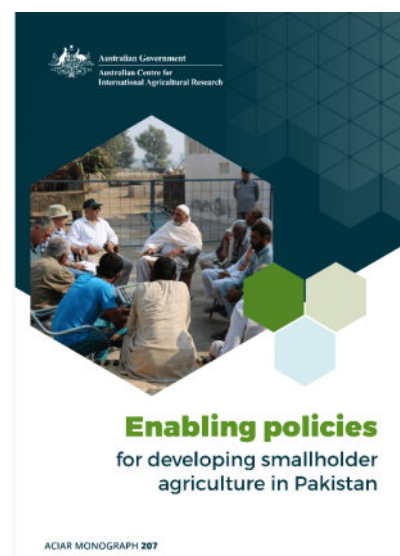
New seed varieties, new approaches to irrigation, pest control or animal health offer enormous potential gains.

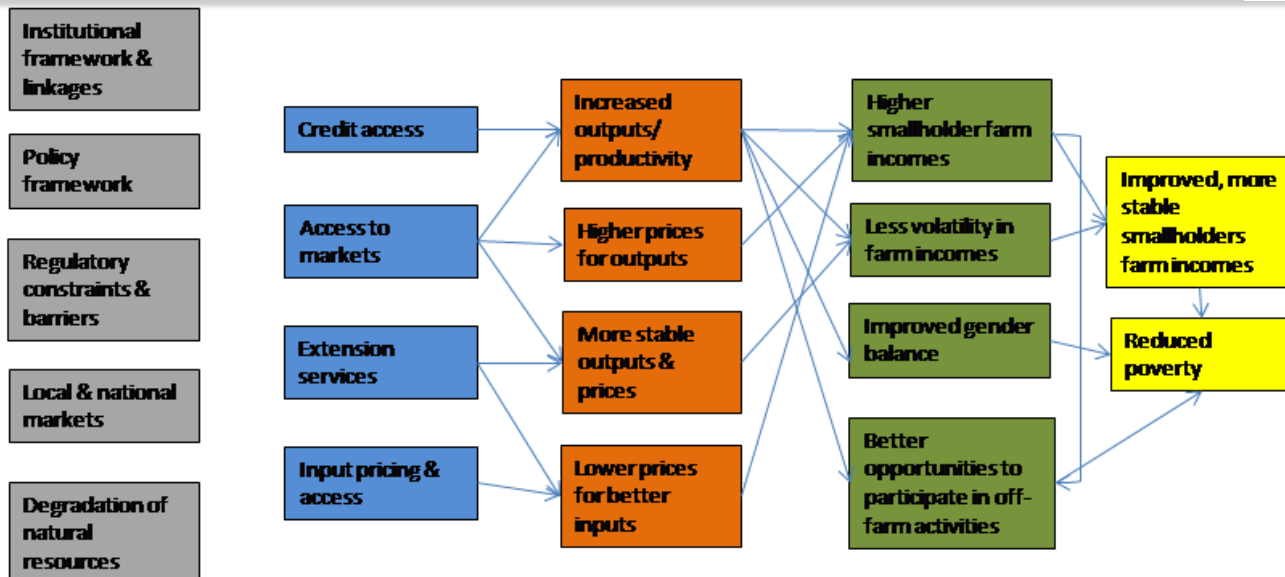
But whether these opportunities are ever realised, and whether agriculture is organised in a way to capture them, are questions that are closely related to the policy framework in place.

ACIAR's policy research addresses these questions, focusing on developing capability in policy analysis and formulation. This research takes place without concern about the political impact of policy—it just spells out the positives and negatives of policy change options. The summaries above include examples where government has shown a strong appetite for policy reform and for independent analysis provided by joint Australian-Pakistani research teams.

Most Aik Saath projects address technical and/or value chain issues aimed at increasing productivity and productivity of smallholders. The coordination team are exploring closer links between these projects and the wealth of past and current policy work in Pakistan.

The diagram below summarises the way that policy can integrate with the many factors affecting smallholder livelihoods. It is drawn from the forthcoming





## Clear Communication involves "killing some darlings"

We focus a lot in Aik Saath on developing communications skills and strategies. Last edition included links to [tools](#) and [insights](#) from the July Annual Meeting

Readers may be interested in an insightful short [article](#) and [video](#) about a communications coaching program that ACIAR ran with Pacific partners. The Celebrating Agriculture in the News (CAN) competition was a collaboration between ABC International Development and ACIAR to promote agricultural reporting. Designed for journalists, it provides essential advice to anyone creating a story about their project – as team members did in [July](#):

**“It required 'killing some darlings'; phrases, mini-stories, film sequences, they liked, even loved, but had to go in the interests of clear storytelling”**

Story training will also be included in the meeting of **ACIAR Pakistan Alumni** in January. Country Office won a special ACIAR award to fund the meeting, which will include field trips and further explore ways that alumni can develop professionally while supporting emerging researchers. [Return to contents](#)

## Notes for your Diary

26-29 January: Alumni Event , Lahore

6 – 8 April: [Measure What Matters Global Conference](#) 6 – 8 April 2020

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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 above).

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

ایک ساتھ  
‘Together’

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. [Return to contents](#)

## [Feedback or ideas for future editions? Please get in touch](#)

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