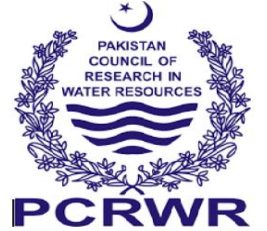




Australian Government

Performance of two adult learning models in enhancing farmer water management skills in Pakistan



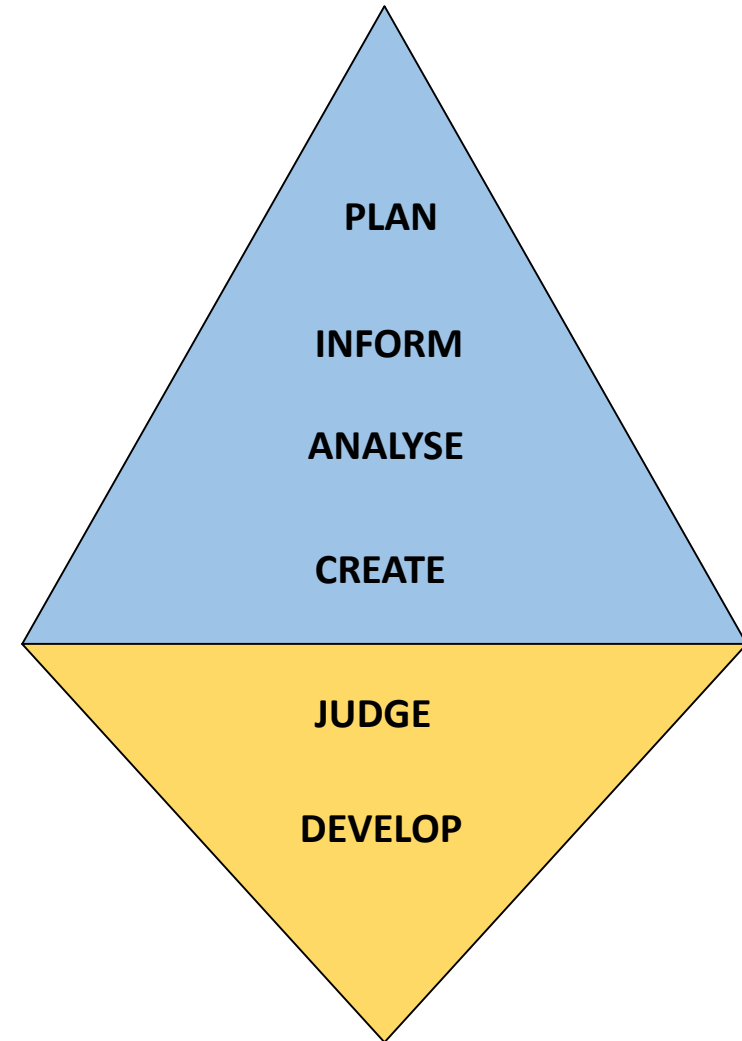
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² Faculty of Education, University of Canberra, ACT 2601, Australia. Sandra.Heaney-Mustafa@canberra.edu.au

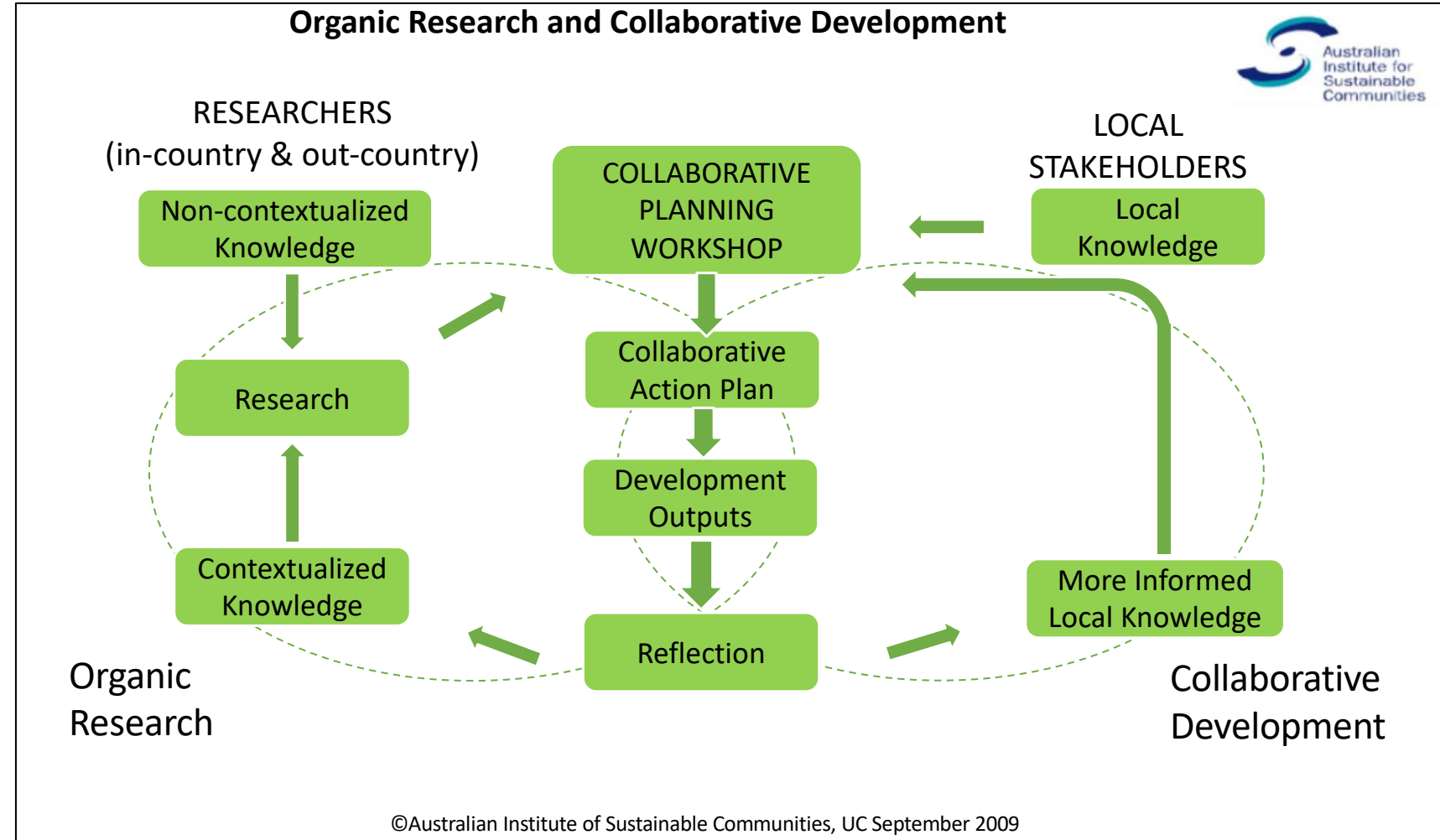
Supported by ACIAR under Project "Developing approaches to enhance farmer water management skills in Punjab, Sindh and Balochistan in Pakistan"

Value Management



Osterwalder, A., Pigneur, Y., Bernarda, G., & Smith, A. 2014. *Value proposition design*. NJ: Wiley.

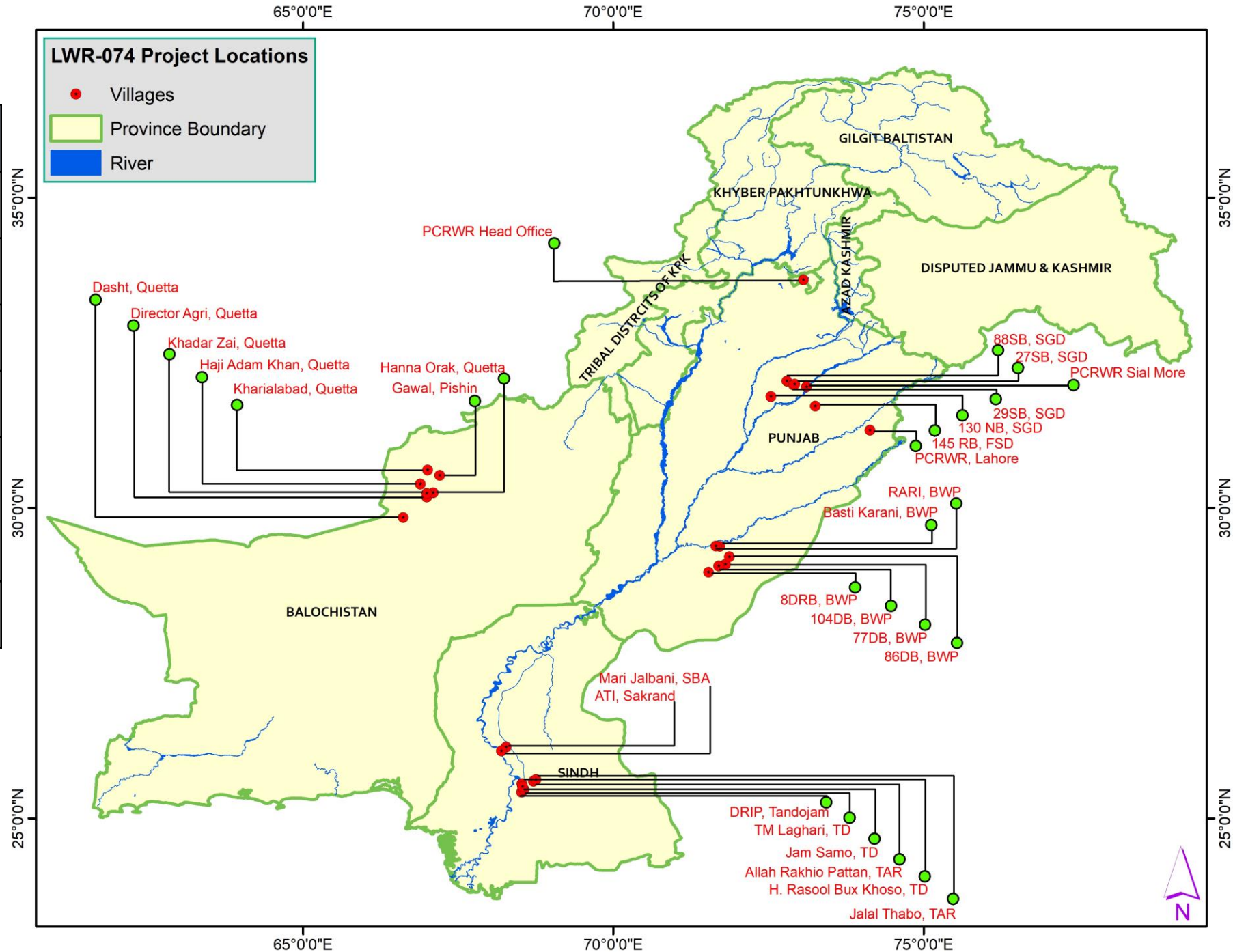
Organic Research and Collaborative Development



Spriggs, J., & Chambers, B. 2011. Organic research and collaborative development (ORCD) of horticultural supply chains in Asia-Pacific. *Stewart Postharvest Review*, 7(2): 1-9. doi:10.2212/spr.2011.2.2.

Study Sites

Province	District
Punjab	Bahawalpur
	Sargodha
	Faisalabad
Sindh	Tandojam
	Shaheed Benazirabad (Nawabshah)
Baluchistan	Quetta/Pishin



Translation of Learning Material in to Urdu and Sindhi

Guidelines for SOFT Facilitators

Developing approaches
to enhance farmer water management skills in
Balochistan, Punjab and Sindh in Pakistan.



Prepared by Dr Iftikhar Hussain, Ms Raheela Khan
and Dr Sandra Mustafa
April 2018

ENGLISH

سافٽ (SOFT) معاونين کي لاءِ رهنا ڪتابچو

پاڪستان ميں بلوچستان، پنجاب اور سندھ کے ڪسانوں ميں پاني کي
انتظامي مهارت برعائے ڪے طريقے



تيار ڪندڙن: ڊاڪٽر افتخار حسين - راحيله خان اور ڊاڪٽر ساندرا مصطفى
اپريل ۲۰۱۸

URDU

گڏيل تعاون سان مسئلن جي حل جي ورڪشاپ (Collaboration Problem-Solving Workshop)

1. اجلاس جو افتتاح تلاوت قرآن پاڪ سان ڪريو.
2. اجلاس ۾ شريڪ ٿيندڙن کي اجلاس جي مقصدن کان آگاه ڪريو.
3. شريڪ ٿيندڙن فردن کي هڪ جيتري انگ ۾ پن يا ٽن ٽيمن تي مشتمل گروپن ۾ تقسيم ڪريو.
4. هر گروپ ۾ رڪنن کي اهڙيءَ ريت ورهايو جيئن هڪ جيتري رهي. مثال طور: هاري، معاون، محقق وغيره (جيڪڏهن آهن ته)
5. شرڪاءَ يا شريڪ ٿيندڙن جو تعارف ڪجي.
مثال طور:
(i) توهان جو نالو ڇا آهي؟
(ii) توهان ڇا ڪندا آهيو؟ (مثال: ملازمت، هاريو يا دوڪاندار وغيره)
(iii) توهان جي ڳوٺ ۾ ڪهڙا ڪهڙا ڪم ٿين ٿا ڪير ڪن ٿا؟
(iv) توهان جو يا ڇا پسنديدہ ڪم يا مشاغل ڪهڙا آهن؟
6. هر گروپ جي شرڪائن يا شريڪ ٿيندڙن کي چئو ته هاري دوران اهي درپيش ايندڙ مسئلا جيڪي حل ٿيڻ گهرجن، چارٽ تي لکو.
7. هر گروپ جي مسئلن واري چارٽ کي پت تي لڳايو.
8. اجلاس جي سڀني شرڪاءَ يا شريڪ ڪي چئو ته انهن جي چارٽ ۾ درج سڀني درپيش مسئلن مان ڪن به ٻن اهم مسئلن تي (ٽنل جدول يا چارٽ ۾) پنهنجو ووٽ درج ڪريو. (جدول نمبر نمبر 1)
9. اهڙيءَ طرح شرڪاءَ گڏيل رضامنديءَ سان اهم ترين مسئلن جا انتخاب ڪندا.

جدول نمبر 1

چارٽ نمبر: _____
ڳوٺ جو نالو _____
شرڪائن جا نالا _____

نمبر شمار	مسئلن جي فهرست	ووٽ (پهرين درجي جو)	ووٽ (ٻين درجي جو)
1			
2			
3			
4			
5			

وڌيڪ داخلا يا اندراج لاءِ لائينن جو تعداد وڌايو

10. پهرئين ۽ ٻئين درجي جا چونڊيل يا منتخب ڪيل اهم ترين مسئلا درج ڪريو.
مثال: (i) پاڻيءَ جي بچت (ii) پاڻيءَ جا باڪٽر
11. اهم ترين مسئلن تي (منصوبو) پراجيڪٽ جي (Problem Statement) پراڻل اسٽيٽمينٽ يا منصوبي جو عنوان تيار ڪريو.
مثال: (i) هاري کي جديد طريقن آڻيائڻ کي اپنائي بچت ڪرڻ.

(عبدالغني سومرو)

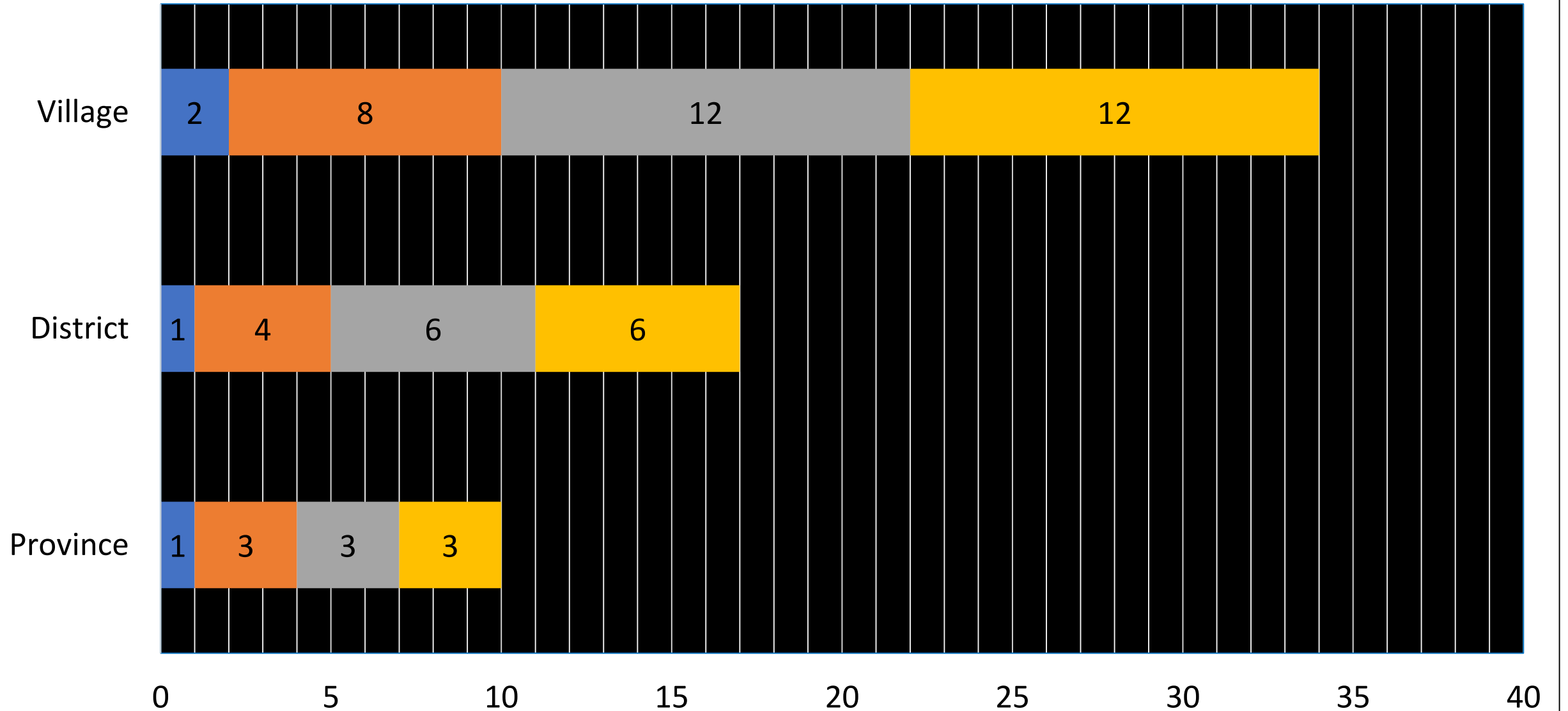
جولائين 2018

1

SINDHI

Phase-wise selection of villages for farmers trainings

Pilot-Phase Round-1 Round-2 Round-3



Training of Facilitators: 79 (48 Men and 31 Women)



Canberra (Australia)



Bahawalpur (Punjab)



Tandojam (Sindh)



Nawabshah (Sindh)



Sargodha (Punjab)



Quetta (Baluchistan)

Farmers Training: 911 (496 men & 415 women)

Province	District	Value Management			Organic Research & Collaborative Development		
		Village (n)	Farmer (n)		Village (n)	Farmer (n)	
			Men	Women		Men	Women
3	6	17	239	186	17	257	229



Key elements of both models

- Valuing the villagers'
 - Capacity
 - Knowledge
 - Village resources
- Valuing facilitators', scientists', engineers' and other stakeholders'
 - Capacity
 - Knowledge
 - Village resources

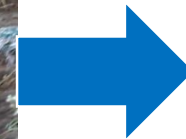
DIFFERENT BUT EQUAL

Women Learning - Kitchen Gardening

➤ Field Cultivation



➤ Arable land converted to vegetable plot



Women Learning- Kitchen Gardening

- Cultivation in home lawns



Women Learning - Kitchen Gardening

➤ Pot Cultivation



Women Learning - Kitchen Gardening

- Irrigation conservation practices (small-plots, beds and furrows)



Women Learning - Kitchen Gardening

➤ Use of soil-moisture and soil-nutrients monitoring tools



Chameleon reader shows soil moisture at four depths.



FullStop Wetting Front Detector for measurement of salt and nitrate .



Tensiometer for assessment of soil moisture.

Women Learning - Kitchen Gardening

➤ Produce sharing with friends and relatives



➤ Dry preservation for off-season use



➤ Money Saving



Women Learning

- Setting up vocational training facility on self-help basis for skill development in tailoring and embroidery



- Awareness sessions on water related health issues and diseases



Men Learning

- Cultivation of less-water intensive crops i.e. Mung beans, Canola



- Irrigation Conservation Practices: Laser land levelling, Bed and Furrow cultivation



Men Learning

Mulching and Compost Preparation



Men Learning

Use of soil-moisture and soil-nutrients monitoring tools

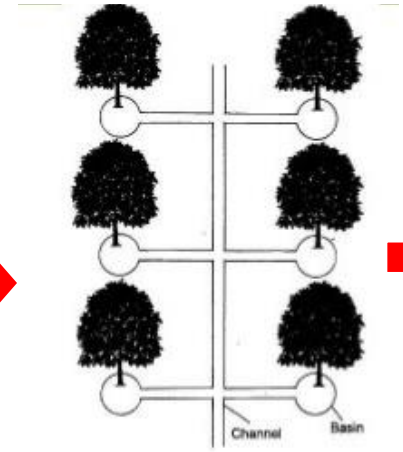


Men Learning

Soil Sampling for Analysis



Men Learning



Self-supported process: Irrigation conservation and management of gummosis disease in citrus orchard



Men Learning

Cultivation of high value crops

Cotton seed production



Onion seed production



Wheat varietal comparison



Challenges

- **Low literacy** was a hindrance in meeting procedural requirements of the learning models i.e. preparation of flip charts, record keeping, wearing DeBono hats etc.
- **Time:** participation in 3-4 hrs sessions for 2-3 consecutive days was in conflict with farmers' daily work schedules of crops & livestock management, social & domestic affairs.
- **Women participation** varied with regional cultures: good in Seraiki satisfactory in Sindhi & Punjabi and poor in tribal Baluchi culture.

Lesson learned

- Farmers learnt to value their resources, brainstorming on new ideas and develop action plans.
- Irrigation conservation methods supported with tools proved interesting.
- Relative acceptance for ORCD was better than VM model.

Outcome

- Farmer-accepted elements of the learning models supported to design a new model (**Farmer Integrated Learning Model, FILM**) for further assessment.